BACK TO MAIN

Study Title

Soil Adsorption/Desorption Study of Potassium Perfluorooctanesulfonate (PFOS)

Data Requirement

Based on OECD 106

Author

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Study Initiation Date

October 17, 2000

Study Completion Date

Date of Signing

Performing Laboratory

3M Environmental Laboratory
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GLP Compliance Statement

Study Title: Soil Adsorption/Desorption Study of Potassium Perfluorooctanesulfonate (PFOS)

Study Identification Number: E00-1311

This study was conducted in compliance with Toxic Substances Control Act (TSCA) Good Laboratory Practice (GLP) Standards with the exceptions listed below:

Exceptions to GLP compliance:

- 40 CFR 972.130(e): There is not an electronic audit trail of corrections. The authenticated hardcopy printouts are considered the original raw data.

Mark E. Ellefson 06/04/01

Mark E. Ellefson, Study Director Date

06/04/01

William K. Reagen, Testing Facility Management Date

Quality Assurance Statement

Study Title: Soil Adsorption/Desorption of Potassium Perfluorooctanesulfonate (PFOS)

Study Identification Number: E00-1311

This study was audited by the 3M Environmental Laboratory Quality Assurance Unit (QAU), as indicated in the following table. The findings were reported to the study director and laboratory management.

Inspection Dates	Phase	Date Reported to	
		Management	Study Director
9/19/00	Protocol	9/20/00	9/20/00
11/07/00	In-phase	11/07/00	11/07/00
4/18/01	Data (Tier I)	4/18/01	4/18/01
5/11/01	Data (Tier II&III)	5/11/01	5/11/01
5/14/01	Data (Tier II&III)	5/14/01	5/14/01
5/17/01	Data (Tier II&III)	5/17/01	5/17/01
5/22/01	Data (Tier II&III)	5/22/01	5/22/01
5/25/01	Final Report	5/25/01	5/25/01

Ken J. Ertz — 6-4-01

QAU Representative — Date

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Location of Archives

All original raw data and the report have been archived at the 3M Environmental Laboratory. The test materials and analytical reference standard reserve samples, as well as the samples pertaining to the analytical phase of this study are archived at the 3M Environmental Laboratory.

Reserve samples, digital copies of original data and all original paper data will be retained in the archives of 3M Environmental Laboratory for a period of at least 10 years following the effective date of the applicable final test rule.

Summary

A preliminary, screening, and advanced study of the soil adsorption/desorption of Potassium Perfluorooctanesulfonate was performed to better understand partitioning under a variety of environmental conditions. Specifically, three types of soil, one sediment, and one sludge were tested. Analyses were conducted as described by 3M Environmental Laboratory Analytical Methods ETS-8-159 "Preparation of Soil Samples for Preliminary (Tier I) Sorption Studies for Fluorochemicals as the Test Substance" and ETS-8-160 "Preparation of Soil Samples for Screening (Tier II) and Advanced (Tier III) Sorption Studies for Fluorochemicals as the Test Substance" (Appendix A), according to OECD Guideline 106 "Adsorption – Desorption Using a Batch Equilibrium Method".

Results of the study are presented in the following tables:

Table 1. Summary Table of PFOS Adsorb/Desorb Tier I Studies

Question	Conclusion
Is the analytical method appropriate/adequate for the study?	The methods ETS-8-159 and ETS-8-160 provide sufficient recovery of the test substance.
What is the best test vessel to use?	Polypropylene tubes will be used throughout this study.
What is the equilibrium time and amount adsorbed at equilibrium?	The 1:5 soil:solution ratio shows a >50% adsorption for both soils tested. The equilibrium time is 48 hours.
What is a suitable desorption solvent?	Methanol is a suitable desorption solvent.
What is the optimal soil:solution ratio?	The optimal soil:solution ration is 1:5
Is the test substance sufficiently stable during the study period?	The test substance is stable during the course of the study.

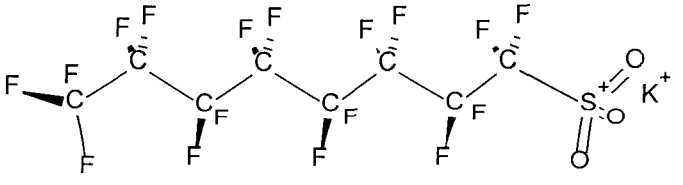
Table 2. Summary Table of PFOS Adsorb/Desorb Tier II Studies

Soil Type	Average Distribution Coefficient, K_d, L/g	Percentage of Organic Carbon in Soil, %oc	Average Organic Carbon Normalized Adsorption Coefficient, K_{OC}, L/g
Clay (ST-1)	0.0183	2.6	70.4
Clay Loam (ST-2)	0.00972	2.6	37.4
Sandy Loam (ST-3)	0.0353	2.8	126
River Sediment (ST-Sed)	0.00742	1.3	57.1
Domestic Sludge (ST-Slg)	< 0.120	NA	NA

Table 3. Summary Table of PFOS Adsorb/Desorb Tier III Studies

Soil Type	Desorption Coefficient, K_{des}, ml/g	K^{ads}_F	K^{des}_F
Sandy Loam	0.0349	0.0919	0.104
Clay Loam	0.0158	0.0421	0.082
Clay	0.0471	0.0560	0.222
River Sediment	0.0100	0.0094	0.039
Domestic Sludge	< 0.237	0.0568	29.5

Introduction



Potassium Perfluorooctanesulfonate (PFOS)

CAS Number: 2795-39-3

Chemical Formula: $C_8F_{17}SO_3K$ Molecular Weight: 538.22 g/mol

Purpose

Adsorption/desorption studies are useful for generating essential information on the mobility of chemicals and their distribution in the soil, water, and air compartments of our biosphere. They can be used in the prediction or estimation of the availability of a chemical for degradation, transformation and uptake by organisms; soil leaching profile; volatility from soil; and run-off from land surfaces into natural waters. Adsorption data can also be used for comparative and modeling purposes.

The distribution of a chemical between soil and aqueous phases is a complex process depending on a number of different factors: the chemical nature of the substance, the characteristics of the soil, and climatic factors such as rainfall, temperature, sunlight and wind. Thus, the numerous phenomena and mechanisms involved in the process of adsorption of a chemical by soil cannot be completely defined by a simplified laboratory model such as the present guideline. However, even if this attempt cannot cover all of the environmental possibilities cases, it provides valuable information on the environmental relevance of the adsorption of a chemical.[1]

OECD guideline 106 is aimed at estimating the adsorption/desorption behavior of a substance on soils. The goal is to obtain a sorption value that can be used to predict partitioning under a variety of environmental conditions. Therefore, equilibrium adsorption coefficients for a chemical onto various soils are determined as a function of soil characteristics. Different soil types must be used in order to emulate the interactions of a given substance with naturally occurring soils. The soil parameters that are believed most important for adsorption are pH, organic carbon content, clay content, and soil texture. The procedures outlined in the guideline are designed to evaluate the adsorption of a chemical on different soil types that have a varying range of pH, organic carbon content, and soil texture. The guideline is comprised of three tiers:

1.1 Tier I: The Preliminary Study

1.1.1 The preliminary study is designed to determine:

a) a suitable analytical method

b) the adsorption of the test substance onto the surfaces of the test vessels

c) the equilibration time for adsorption and the amount of test substance adsorbed at equilibrium

d) a suitable desorption solvent

e) the soil:aqueous solution ratio

f) the stability of the test substance during the study period

1.1.2 The preparatory methodology for Tier I is described in the 3M Environmental Laboratory Method ETS-8-159: Preparation of Soil Samples for Preliminary (Tier I) Sorption Studies for Fluorochemicals as the Test Substance (based on OECD Guideline 106).

1.2 Tier II: Screening Study:

1.2.1 The screening study is designed to study the adsorption of the test substance in three different soil systems, one sediment, and one dried sludge by means of:

a) adsorption kinetics at a single concentration

b) determination of distribution coefficients K_d and K_{oc}

1.2.2 The preparatory methodology for Tier II is described in the 3M Environmental Laboratory Method ETS-8-160: Preparation of Soil Samples for Screening (Tier II) and Advanced (Tier III) Sorption Studies for Fluorochemicals as the Test Substance (based on OECD Guideline 106).

1.3 Tier III: Adsorption Isotherms and Desorption Kinetics/Desorption Isotherms

1.3.1 The advanced study is designed to:

a) determine the Freundlich adsorption isotherms that, in turn, determine the influence of concentration on the extent of adsorption onto the soils, sediment

[1] According to OECD Guideline 106

and sludge.

b) study desorption by means of determining desorption kinetics/Freundlich desorption isotherms

1.3.2 The preparatory methodology for Tier III is described in the 3M Environmental Laboratory Method ETS-8-160: Preparation of Soil Samples for Screening (Tier II) and Advanced (Tier III) Sorption Studies for Fluorochemicals as the Test Substance (based on OECD Guideline 106).

Materials and Methods

Chemical Characterization

Table 4. Characterization of the Test Substance, Test System, and Analytical Reference Substances

Test Substance	PFOS	THPFOS
Source	3M Specialty Chemicals, Bldg. 236-1B-10	SynQuest Labs
Expiration Date	8/31/2001	none
Storage Conditions	Frozen	Frozen
TCR Identification Number	TCR-00017-046	TCR-00017-047
Physical Description	White Powder	White Powder
Purity	97.9%	TBD

Solvent	PFOS Solubility (Corrected for Purity)
ASTM Type I Water	680 ug/mL *
Natural Seawater	12.7 ug/mL **
Aqueous Solution of 3.5% Sodium Chloride	20.2 ug/mL **
n-Octanol	56.0 ug/mL ***

** As reported by 3M Environmental Laboratory Report #E00-1716 Phase: Solubility of PFOS in Water, ** Phase: Solubility of PFOS in Natural Seawater and an Aqueous Solution of 3.5% Sodium Chloride, and *** Phase: Solubility of PFOS in n-Octanol.*

All solubility determinations of PFOS TCR-00017-046 were conducted at 22-25°C.

For PFOS stability information refer to 3M Environmental Laboratory report W-1878 (PFOS hydrolysis study).

Soil Type	Clay	Barnes Loam	Clay Loam	Sandy Loam	River Sediment	Domestic Sludge
Source	Agvise	Agvise	Agvise	Agvise	Agvise	NIST
Expiration Date	12/31/2015	12/31/2015	12/31/2015	8/1/2015	12/31/2015	10/31/2005
Storage Conditions	Room Temperature	Room Temperature	Room Temperature	Room Temperature	Room Temperature	Room Temperature
Chemical Lot Number	00-2407	00-2404	00-2405	99-2564	00-2046	2781
Physical Description	Dried and sieved	Dried and sieved	Dried and sieved	Dried and sieved	Dried and sieved	Dried and sieved
% Organic Carbon	2.6%	4.9%	2.6%	2.8%	1.3%	N/A
% Sand	16%	39%	21%	58%	39%	N/A
% Silt	22%	50%	46%	22%	42%	N/A
% Clay	62%	11%	33%	20%	19%	N/A

Method Summaries

- **ETS-8-159 "Preparation of Soil Samples for Preliminary (Tier I) Sorption Studies for Fluorochemicals as the Test Substance"**
  - **Suitable Analytical Method:**

    A soil of high adsorbability (high organic carbon and clay content) is agitated with an appropriate volume of 0.01 M $CaCl_2$ solution at a 1:5 (w:v) ratio for a minimum of 4 hours. The mixture is centrifuged and the aqueous phase filtered, if necessary. This "matrix solution" is then prepared by adding 100uL of 500mg/L PFOS in a 10ml volumetric flask to reach a nominal concentration within the concentration range that is likely to occur during the test. This "study sample" is then analyzed using HPLC/MS. After the study sample has been analyzed, a determination is made as to whether HPLC/MS is a suitable analytical method for the test substance.

  - **Suitable (Minimally Adsorbing) Container**

    Up to five containers comprising a variety of materials are exposed to a 0.01 M $CaCl_2$ aqueous solution dosed with the test substance at a concentration of 0.10mg/L and 1.0mg/L for a minimum of 24 hours. The resulting solution is analyzed for the test substance using HPLC/MS. In addition, an extraction of the container walls is made with methanol. This extract is analyzed as well. Any container that adsorbs less than 10% of the test substance onto its walls is considered suitable for use as a study container. Alternatively, the container demonstrating the least amount of test substance absorption is chosen from those tested.

  - **Selection of Optimal Soil: Aqueous Solution Ratio, Determination of Equilibration Time, and Stability of the Test Substance Under the Conditions of the Study**

The optimal soil: aqueous ratio is determined by using two types of soils and three soil: solution ratios. An aqueous solution in contact with the soil is spiked with 125uL of 500mg/L PFOS to a concentration of 5.0mg/L. Sufficient tubes are prepared such that tubes can be removed at intervals (spanning 0 to 48 hr) and the aqueous portion analyzed. Equilibrium is determined by plotting the adsorption of the test substance over time. The optimal soil: solution ratio is determined by comparing of the amount of adsorption of the test substance at equilibrium for the various soil: solution ratio study samples. Acceptable values are soil: solution ratios that give a depletion of the test chemical greater than 20% and preferably greater than 50% at equilibrium. Stability is determined by a mass balance determination following a methanol extraction of the soil. The mass balance determination is conducted on the one soil:solution ratio per soil that gives a depletion of the test chemical above 20% and preferably above 50% at equilibrium.

- **Suitable Desorption Solvent:**

  Methanol was investigated as the suitable desorption solvent for the test substance. A high clay content soil was dosed with the test substance at two levels (0.75 μg, 7.5 μg). The test substance was then extracted from the study samples three times with methanol. The combined methanol extracts are then prepared for analysis by HPLC/MS.

  In all cases, adequate quality assurance samples were prepared and analyzed. The equilibration steps were performed at 19 to 30 degrees C.

- **ETS-8-160 "Preparation of Soil Samples for Screening (Tier II) and Advanced (Tier III) Sorption Studies for Fluorochemicals as the Test Substance"**

  - **Tier II: Adsorption Kinetics (One concentration):**

    Appropriate soils and/or sediments and/or sludges were selected for the study. Replicate study samples containing the soils (or sediments or sludges) are equilibrated by shaking for at least 12 hours at room temperature with 0.01 M $CaCl_2$. Study samples are dosed with the test substance at approximately 0.5 mg/L and placed on an orbital shaker. Replicate sets of these study samples are removed at designated time points throughout a 48 hour time period. Study samples are then prepared and analyzed for the target analyte. The adsorption kinetics are determined using this data. The last set of study samples (48 hour) are saved and used for the desorption kinetics portion of the method.

  - **Tier III: Desorption Kinetics (One concentration):**

    After the adsorption kinetics experiment, the 48 hour study samples are centrifuged and the aqueous phase removed. The volume of solution removed is replaced by an equal volume of 0.01 M $CaCl_2$ without test substance. The new mixture is agitated until the desorption equilibrium is reached. During a 48 hour period, at defined time intervals, small aliquots of the aqueous phase are removed and analyzed for the target analyte. The experiment then continues with the original mixture. The desorption kinetics are determined using this data.

  - **Tier III: Adsorption Isotherms (Five concentrations):**

    Five test substance concentrations are used, covering two orders of magnitude. Study samples containing soil (or sediments or sludges) in contact with 0.01 M $CaCl_2$ are equilibrated for a minimum of 12 hours. After equilibration, the study samples are dosed

with test substance. The samples are then gently agitated until adsorption equilibrium is reached. Sample sets are removed from the orbital shaker at designated time intervals. The study samples are then prepared and analyzed for the target analyte. The adsorption isotherms are calculated using this data. The study samples from the last time interval are saved for the desorption isotherm study.

- **Tier III: Desorption Isotherms:**

  The study samples from the adsorption isotherm study are used for the desorption isotherm study. These samples are centrifuged and the aqueous layer removed. An equal volume of fresh 0.01 M $CaCl_2$ solution containing no test substance is added to each sample. The samples are placed in the orbital shaker and equilibrated for 48 hours. The samples are then prepared and analyzed for the target analyte. (These study samples are saved and used to determine mass balance.) The desorption isotherms are determined using this data.

- **Tier III: Mass Balance:**

  The study samples from the desorption isotherm study are used for the mass balance study. The study samples are centrifuged and the aqueous layer removed. Three portions of methanol are added to the study samples. With each addition of methanol, the study samples are agitated, centrifuged, and the methanol removed and placed in a second container. These subsequent (methanol) study samples are then prepared and analyzed for the target analyte. Mass balance is determined using this data.

  In all cases, adequate quality control samples are prepared and analyzed. Additionally, the equilibration steps were carried out at between 19 and 30 degrees C.

Table 5. Test System Distribution for Study LRN-E00-1311

Population		Total	Selected for LRN-E00-1311
Tier I "Suitable Analytical Method"	Test Substance Solutions	45	45
	Control Blanks	15	15
Tier I "Suitable Desorption Solvent"	Test Substance Solutions	18 + 6 Matrix Spikes	18 + 6 Matrix Spikes
	Control Blanks	9 + 3 matrix spikes	9 + 3 matrix spikes
Tier I "Suitable (Minimally Adsorbing) Container"	Test Substance Solutions	60 + 16 Matrix Spikes	60 + 16 Matrix Spikes
	Control Blanks	30 + 8 matrix spikes	29 + 8 matrix spikes
Tier I "Selection of Optimal Soil: Solution Ratios"	Test Substance Solutions	171 + 57 Matrix Spikes	171 + 57 Matrix Spikes
	Control Blanks	63 + 21 matrix spikes	63 + 21 matrix spikes
Tier II "Adsorption Kinetics"	Test Substance Solutions	144 + 48 Matrix Spikes	139 + 48 Matrix Spikes
	Control Blanks	36 + 12 matrix spikes	36 + 12 matrix spikes

Tier III "Desorption Kinetics"	Test Substance Solutions	126 + 42 Matrix Spikes	115 + 42 Matrix Spikes
	Control Blanks	126 + 42 Matrix Spikes	126 + 42 Matrix Spikes
Tier III "Adsorption Isotherms"	Test Substance Solutions	180 + 60 Matrix Spikes	180 + 60 Matrix Spikes
	Control Blanks	36 + 12 matrix spikes	36 + 12 matrix spikes
Tier III "Desorption Isotherms"	Test Substance Solutions	90 + 30 Matrix Spikes	89 + 30 Matrix Spikes
	Control Blanks	18 + 6 matrix spikes	18 + 6 matrix spikes
Tier III "Mass Balance"	Test Substance Solutions	90 + 30 Matrix Spikes	89 + 30 Matrix Spikes
	Control Blanks	18 + 6 matrix spikes	18 + 6 matrix spikes

Specimen Collection and Analysis

During the course of the study, aliquots of the test systems were collected at predetermined time intervals. Some sample aliquots were diluted with methanol. The following table describes the sampling regimen information:

Table 6. Sample Collection and Preparation for Study LRN-E00-1311

Step	Procedure	Replicates	Date(s) Performed
Tier I "Suitable Analytical Work"	Each of the three soils, the sediment, and the sludge are equilibrated with 0.01M $CaCl_2$ in triplicate. This "matrix solution" is then removed and dosed with the test substance, and the resulting solution analyzed.	Each "matrix solution" is dosed in triplicate, and one control sample is prepared.	Samples aliquotted 11/02/00
Tier I "Suitable Container"	Four types of test vessels, each of a different material, are exposed to the test substance for 24 hours. The resulting solution is analyzed for the test substance to measure any loss to the container. The test vessel is then extracted to measure any test substance that may have adsorbed onto the sides if the container.	Each type of container is dosed at two concentrations, and a set of controls is also prepared. Every vessel is extracted with methanol after the test substance has been removed.	Aqueous samples aliquotted 11/14/00 Methanol extractions aliquotted 11/15/00
Tier I "Suitable Desorption Solvent"	Two types of soil are dosed with the test substance, and the soil is extracted with methanol three times. The extracts are combined and analyzed to measure the suitability of the solvent.	Each type of soil is dosed at two concentrations, and a set of controls is also prepared.	Methanol extractions aliquotted 1/22/01

Tier I "Selection of Optimal Soil: Solution Ratios and Mass Balance"	Two types of soil are prepared in three soil:solution ratios to determine the optimal ratio to use in the remainder of the study. Samples are prepared at several time points to determine the time required for the solution to reach equilibrium, and a mass balance calculation is performed.	Each soil/ratio/time combination is prepared in triplicate, one matrix spike is performed, and one control is prepared.	Aqueous samples aliquotted 11/29/00-12/4/00 Methanol extractions aliquotted 12/7/00
Tier II "Adsorption Kinetics"	Three soils, one sediment, and one sludge are prepared in the soil:solution ratio indicated in the Tier I study. The samples are dosed with the test substance and placed on a shaker, samples are then pulled at several time points.	Each soil/time combination is prepared in triplicate, one matrix spike is performed, and a set of controls is prepared.	Aqueous samples aliquotted 2/1/01-2/7/01
Tier III "Desorption Kinetics"	The aqueous layer is removed from the 48 hour samples from the above step. Fresh $CaCl_2$ is added to the test vessel and the vessel is placed on a shaker. Small samples are taken at several time points, and additional aqueous solution is added to replace the sample taken.	Each 48 hour sample vessel from the above step produces 9 samples over the course of the desorption (seven time points and two matrix spikes).	Aqueous samples aliquotted 2/13/01-2/15/01
Tier III "Adsorption Isotherms"	Three soils, one sediment, and one sludge are prepared in the soil:solution ratio indicated in the Tier I study. The samples are dosed with the test substance (at one of 5 concentrations) and equilibrated for either 0 or 48 hours.	Each soil/concentration/time point combination is prepared in triplicate, one matrix spike is performed.	Aqueous samples aliquotted 2/14/01-2/15/01
Tier III "Desorption Isotherms"	The aqueous layer is removed from the 48 hour samples from the above step. Fresh aqueous $CaCl_2$ solution is added to the test vessel and the vessel is placed on a shaker for 48 hours.	Each 48 hour vessel produces one sample, and every third sample is also prepared as a matrix spike.	Aqueous samples aliquotted 2/21/01
Tier III "Mass Balance Determination"	The aqueous solution is removed from the 48 hour samples in the above step. The remaining soil is then extracted with three portions of methanol, each time the solution is decanted into the same vessel.	Each 48 hour vessel produces one sample, and every third sample is also prepared as a matrix spike.	Methanol extractions aliquotted 2/22/01-2/26/01

Diluted samples (i.e. sample extracts) containing 250 ng/mL THPFOS as internal standard were analyzed using high-performance liquid chromatography/mass spectrometry (HPLC/MS) in the negative ion mode. PFOS levels were evaluated versus standard curves ranging in concentration from 2.5-1000 ng/mL PFOS and 250 ng/mL THPFOS. Internal Standard quantification was used to best fit and report the data. Target ions were deprotonated PFOS (m/z = 499), and deprotonated THPFOS (m/z = 427).

Analytical details are included in the file for this study that is maintained by the 3M Environmental Laboratory; the study folder is located in the 3M archives. All study samples were generated and analyzed at the 3M Environmental Laboratory. No chain of custody forms were generated or required.

Reserve samples of reference materials from the 3M Environmental Laboratory will be stored at the 3M Environmental Laboratory for a period not less than 10 years following the effective date of the final test rule, or until the quality of the preparation no longer affords evaluation. Reserve

samples of the reference materials from the contract laboratory will be returned to the 3M Environmental laboratory for retention and archiving.

Results and Discussion

Data Quality Objectives

The following data quality objectives are from the methods used in the present study. The data quality objectives were met, except as documented in raw data.

- **Coefficient of Determination (r^2).** The coefficients of determination (r^2) for the calibration curves were 0.985 or greater. The curves were examined closely for accuracy of quantitation at the low and high ends of the curve. Quadratic curve fit was applied to calibration standards and sample data to improve quantitation over the concentration range appropriate to the data.
- **Method Blanks.** Method blanks (applicable sample matrix taken through the entire sample preparation, dilution, and analysis process) provided a measure of laboratory contamination. Acceptable values for the blanks were less than 50% of the limit of quantitation (LOQ), defined herein as the concentration of the lowest standard.
- **Matrix Spike Recoveries.** A post-preparatory matrix spike sample for each of the sample groups used in the study was prepared by adding aliquots of test-analyte solution according to 3M Method ETS-8-159 and 160. The spike recoveries for >80% of the samples were acceptable (100 ± 30%). Instances where spike recoveries outside of the control range were observed are indicated in Appendix E.
- **Sample Triplicates.** The Relative Standard Deviations of triplicate samples were acceptable when at least 80% of them were less than or equal to 30%. Q-tests were used to exclude outliers in data sets.
- **Continuing Calibration Verification.** If the percent difference for the amount of quantitated analyte was greater than 30% from the true value relative to the initial standard curve, only those samples analyzed before the last acceptable calibration check standard were used. The remaining samples were analyzed with a new curve.
- **Limit of Quantitation (LOQ).** The LOQ was equal to the lowest acceptable standard in the calibration curve.
- **Calibration Standards.** Eleven standards ranging in concentration from approximately 2.5 to 1000 ng PFOS/mL methanol were used for the calibration curves. Calibration curves were run before and after every analytical sequence.
- **Solvent Blanks.** Solvent (Methanol) blanks provide a measure of instrumental contamination. Acceptable values for the blanks were less than 50% of the limit of quantitation, defined herein as the lowest calibration standard.
- **System Suitability.** Without performing a method validation, system suitability was demonstrated by acceptable instrumental checks (e.g. abbreviated m/z check-tune, or full auto-tune routines).

Statistical Methods and Calculations

Means and standard deviations were calculated using functions provided in Microsoft® Excel® software. Calculations with the raw data were made using the equations described in the OECD Method 106 (see Appendix B).

Data Summary and Discussion

Appendices D and E summarize individual sample data. Representative chromatograms are presented in Appendix G. All concentrations and calculations can be found in the data tables, along with the log plots used to determine the isotherm values. These data are used in all subsequent tables and figures in this report.

Results of the Tier I study are presented in table 7 through 11:

Table 7. Suitable Analytical Method Determination

Soil Type	Soil/0.01M $CaCl_2$ Solution ID	Average Recovery of PFOS from matrix solution, %	%RSD
Barnes Loam (ST-1)	E00-1311-0001, -0002, -0003	115%	7.51
Clay Loam (ST-2)	E00-1311-0004, -0005, -0006	115%	4.92
Clay (ST-3)	E00-1311-0007, -0008, -0009	99.8%	21.81
River Sediment (ST-Sed)	E00-1311-0010, -0011, -0012	116%	8.88
Domestic Sludge (ST-Slg)	E00-1311-0013, -0014, -0015	88.3%	15.97

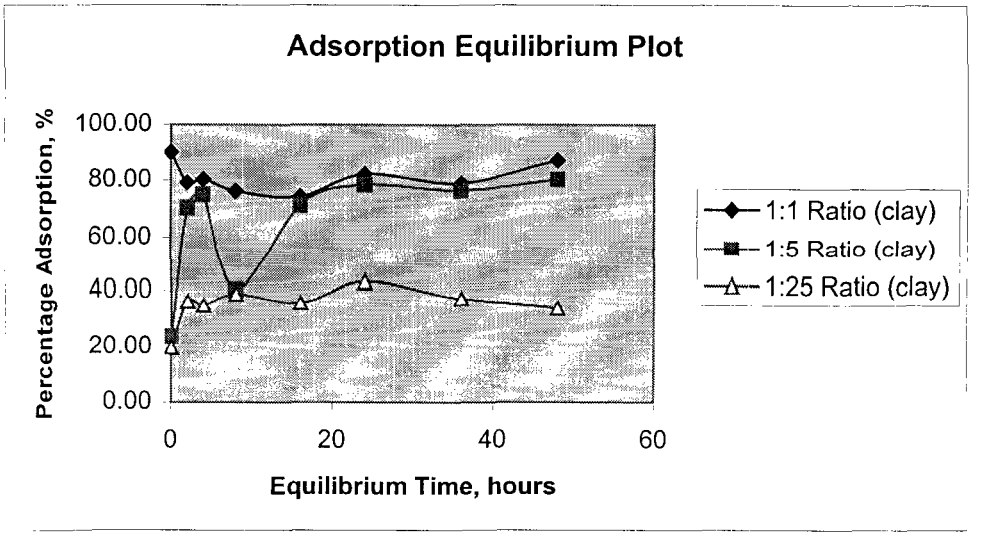
Table 8. Suitable Test Vessel Determination

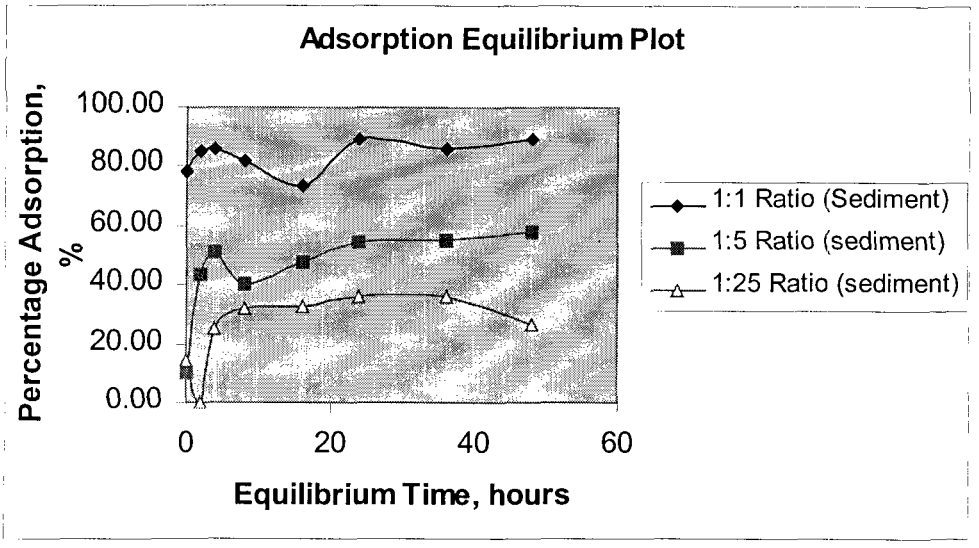
Centrifuge Tube Type	Average Recovery of 1.0mg/L PFOS After Adsorb Step, %	Average Concentration of PFOS Extracted From Test Vessels During Desorb Step, PPB	Average Matrix Spike Recovery for Adsorb and Desorb Steps, %
Polypropylene	96.19%	244.36ppb	116.18%
Polystyrene	94.51%	172.43ppb	203.04%
Glass	96.74%	397.75ppb	206.69%
Teflon	89.49%	94.37ppb	176.45%

It was determined that the polypropylene centrifuge tubes were suitable for this study. These tubes had the least amount of extractable PFOS, and were the only tubes with acceptable matrix spike recoveries.

Table 9. Equilibrium Time for Adsorption of PFOS

Soil Type	Soil:Solution Ratio	Time Point, Hours	Average Recovery of PFOS (in solution)%
Clay	1:1	24	17.64%
		36	20.98%
		48	12.74%
	1:5	24	21.58%
		36	23.51%
		48	19.71%
	1:25	24	57.42%
		36	60.15%
		48	66.80%
Sediment	1:1	24	11.04%
		36	14.32%
		48	10.63%
	1:5	24	45.85%
		36	45.01%
		48	42.19%
	1:25	24	65.34%
		36	67.31%
		48	68.00%





The test substance appeared to reach equilibrium after 24 hours in all of the soil:solution ratios. The clay appeared to take more time to reach equilibrium, therefore the 48 hour time point was used as the equilibrium time for the remainder of the study. This ensured that all five of the soils were given ample time to equilibrate.

Table 10: Suitable Desorb Solvent, Methanol

Soil Type	Theoretical Test Substance Concentration In Extract, ug/L	Average Recovery, ug/L	AVERAGE RECOVERY OF PFOS%
Clay	0.0	< 25.0	N/A
	100	71.2	71.2%
	1000	591	59.1%
Sediment	0.0	< 25.0	N/A
	100	96.0	96.0%
	1000	601	60.1%

Despite using methanol, an excellent solvent for PFOS, the average percent recovery of PFOS ranged from zero to 96%. It is unlikely that a different solvent would yield better recovery. Previous results in this study have indicated that the test substance is readily and rapidly adsorbed on the soil, and is not likely to be completely extracted from it. .

The optimal soil:solution ratio was determined to be 1:5 (refer to Table 9 for applicable data). This ratio demonstrated average adsorption percentages of PFOS ranging from approximately 75% in clay to 55% in sediment.

Table 11. Stability of PFOS during the Study Period

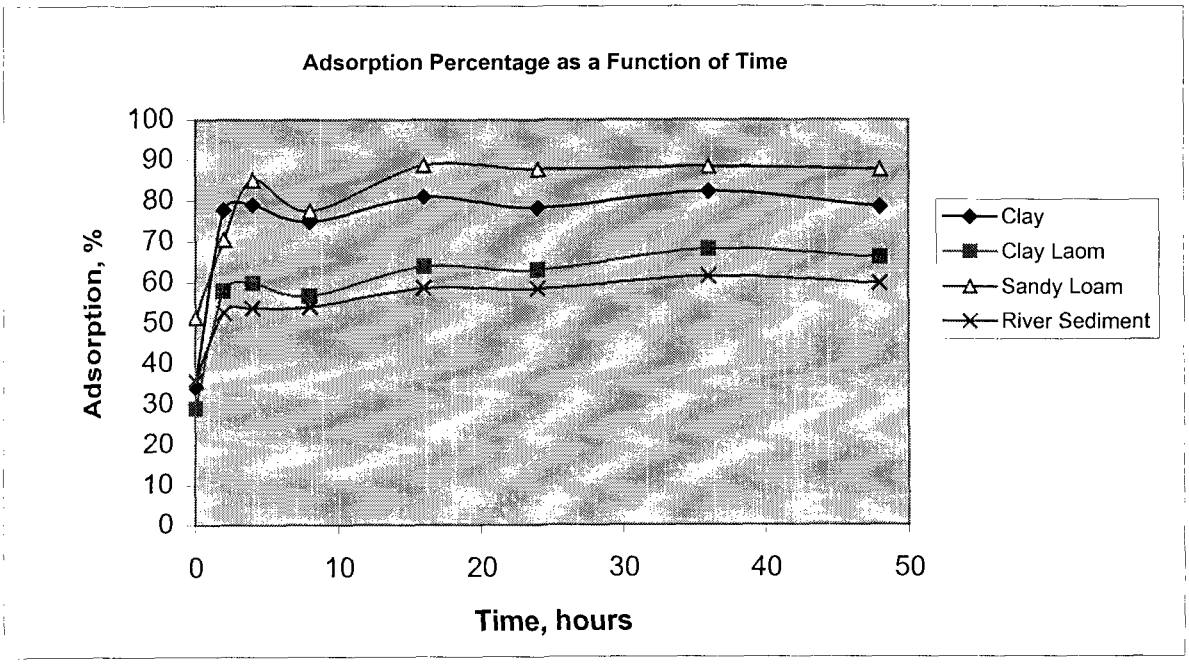
Soil Type	Soil:Solution Ratio, Time Point	Time Point, hours	TOTAL RECOVERY OF PFOS%
Clay	1:1	48	46.16
		48	53.15
		48	71.33
	1:5	48	34.28
		48	35.62
		48	Tube Broke
	1:25	48	83.21
		48	91.24
		48	96.27
Sediment	1:1	48	43.68
		48	48.12
		48	24.66
	1:5	48	57.63
		48	78.67
		48	59.52
	1:25	48	73.64
		48	87.35
		48	83.05

According to OECD guideline 106, the mass balance calculation should show at least 90% recovery of the test substance for the test substance to be considered stable over the course of the study. The recovery of the test substance was lower than the OECD guideline, likely due to the incomplete desorption of the test substance from the soil. Hydrolysis studies of PFOS conducted at the 3M Environmental Laboratory have demonstrated test substance stability in aqueous matrices.

The results of the Tier II study are presented in Table 12:

Table 12. Adsorption Kinetics of PFOS, 1:5 Soil:Solution Ratio, 48 Hour Time Point

Soil Type	Average Distribution Coefficient, K_d, L/g	Percentage of Organic Carbon in Soil, %oc	AVERAGE ORGANIC CARBON NORMALIZED ADSORPTION COEFFICIENT, K_{OC}, L/g
Clay (ST-1)	0.0183	2.6	70.4
Clay Loam (ST-2)	0.00972	2.6	37.4
Sandy Loam (ST-3)	0.0353	2.8	126
River Sediment (ST-Sed)	0.00742	1.3	57.1
Domestic Sludge (ST-Slg)	< 0.120	NA	NA

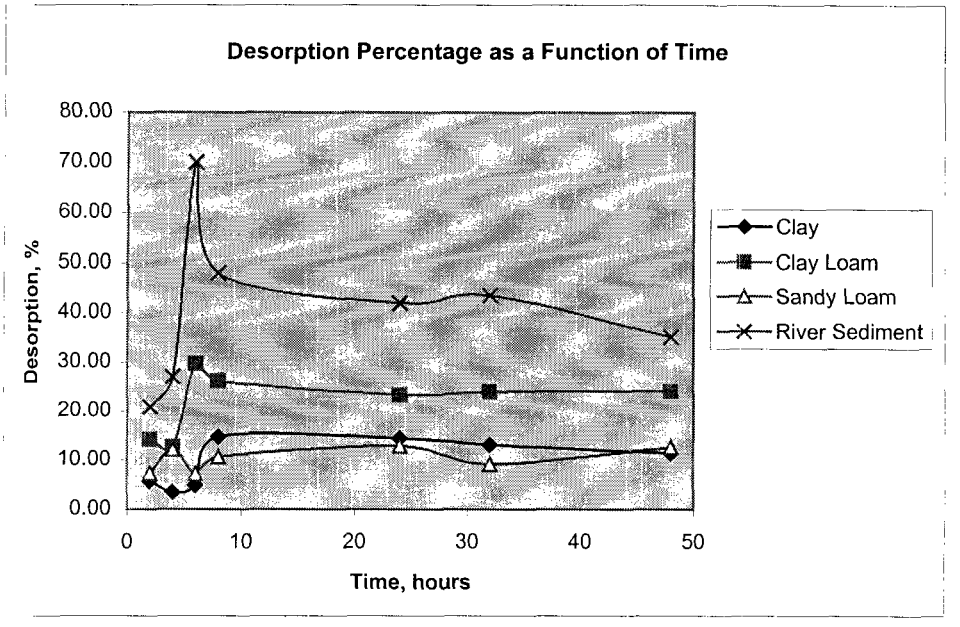


All of the soil/sediment/sludge matrices adsorbed the test substance strongly. The sludge samples, in the adsorption portion of the kinetics study, demonstrated very strong adsorption (>96%) and PFOS was not detected in the samples. The data indicates that adsorption occurred within the first few hours of exposure and the test substance concentration does not vary significantly after the 16 hour time point.

The results of the Tier III study are presented in Tables 13 through 15:

Table 13. Desorption Kinetics of PFOS, 1:5 Soil:Solution Ratio, 48 hour Time Point

Soil Type	Desorption Coefficient, K_{des}, ml/g
Barnes Loam (ST-1)	0.0471
Clay Loam (ST-2)	0.0158
Clay (ST-3)	0.0349
River Sediment (ST-Sed)	0.0100
Domestic Sludge (ST-Slg)	< 0.237



The test substance was poorly desorbed from the soil/sediment/sludge matrices during the 48-hour study period. The river sediment displayed the most desorption at only 39% after 48 hours. The sludge samples did not desorb a detectable amount of test substance. Desorption that did occur was accomplished rather quickly, after the 8 hour time point the test substance concentration did not vary significantly.

Table 14. Adsorption Isotherms

Soil Type	Log K^{ads}_F	K^{ads}_F	Regression Constant, 1/n	Regression Constant, n
Clay	-1.2515	0.0560	0.884	1.13
Clay Loam	-1.3762	0.0421	0.841	1.19
Sandy Loam	-1.0369	0.0919	0.829	1.21
River Sediment	-2.0261	0.0094	0.989	1.01
Domestic Sludge	-1.246	0.0568	1.2581	0.795

Table 15. Desorption Isotherms

Soil Type	Log K^{des}_F	K^{des}_F	Regression Constant, 1/n	Regression Constant, n
Clay	-0.653	0.222	0.935	1.07
Clay Loam	-1.084	0.082	0.954	1.05
Sandy Loam	-0.981	0.104	1.01	0.988
River Sediment	-1.41	0.039	1.02	0.984
Domestic Sludge	1.47	29.5	0.327	3.06

Freundlich isotherms relate the amount of test substance adsorbed on the soil to the amount present in the aqueous solution at equilibrium. The values calculated for the regression constant indicate that the data obtained for the test substance over two orders of magnitude is slightly non-linear.

Conclusions

Perfluorooctanesulfonate (PFOS) strongly adsorbs to all of the soil/sediment/sludge matrices tested. The test substance, once adsorbed, does not desorb readily, even when extracted with an organic solvent. In either case, adsorption or desorption, an equilibrium is achieved in less than 24 hours, with substantial adsorption (>50%) occurring in some of the time 0 samples. The low recoveries demonstrated by the mass balance calculations are likely the result of the test substance being strongly adsorbed, since it is unlikely that the test substance degraded during the course of this study.

References

1. Adsorption-Desorption Using a Batch Equilibrium Method (OECD 106), January 2000.

Signatures

The final draft of this report is a true representation of the data developed in this study. It has been issued by:

Mark E. Ellefson, Study Director — Date: 06/04/01

William K. Reagan, Testing Facility Management — Date: 06/04/01

Appendix A: Study Protocol E00-1311-

Soil Adsorption/Desorption Study of Potassium Perfluorooctanesulfonate

3M

STUDY PROTOCOL

STUDY TITLE

Soil Adsorption/Desorption Study of Perfluorooctanesulfonate (PFOS)

SPONSOR

William K. Reagen, Ph.D.

TESTING FACILITY

3M Environmental Laboratory
Building 2-3E-09
935 Bush Avenue
St Paul, MN 55106

LABORATORY STUDY IDENTIFICATION

Laboratory Request Number (LRN)—E00-1311

Protocol Signatures

Study Director:

Mark E. Ellefson — Date: 10/17/00

3M Environmental Laboratory

Protocol Approval

Sponsor:

William K. Reagen, Ph.D. — Date: 10/17/00

3M Environmental Laboratory

STUDY IDENTIFICATION

Soil Adsorption/Desorption Study of Perfluorooctanesulfonate (PFOS)

TEST SUBSTANCE	Perfluorooctanesulfonate (PFOS)
SPONSOR	3M Environmental Laboratory 935 Bush Avenue, Building 2-3E-09 St. Paul, MN 55106
SPONSOR REPRESENTATIVE	**William Reagen, Ph.D.** 3M Environmental Laboratory 935 Bush Avenue, Building 2-3E-09 St. Paul, MN 55106 (651)778-6565
STUDY DIRECTOR	**Mark E. Ellefson** 3M Environmental Laboratory 935 Bush Avenue, Building 2-3E-09 St. Paul, MN 55106 (651)778-5405
TEST FACILITY	3M Environmental Laboratory 935 Bush Avenue, Building 2-3E-09 St. Paul, MN 55106

PROPOSED STUDY TIMETABLE

Experimental Start Date	18 October 2000
Experimental Termination Date	15 December 2000

1.0 Introduction and Purpose/Objective

1.1 Adsorption/desorption studies are useful for generating essential information on the mobility of chemicals and their distribution in the soil, water and air compartments of our biosphere. They can be used in the prediction or estimation of the availability of a chemical for degradation, transformation and uptake by organisms; leaching through the soil profile; volatility from soil; and run-off from land surfaces into natural waters. Adsorption data can also be used for comparative and modeling purposes.[1]

The distribution of a chemical between soil and aqueous phases is a complex process depending on a number of different factors: the chemical nature of the substance, the characteristics of the soil, and climatic factors such as rainfall, temperature, sunlight and wind. Thus, the numerous phenomena and mechanisms involved in the process of adsorption of a chemical by soil cannot be completely defined by a simplified laboratory model such as the present guideline. However, even if this attempt cannot cover all the environmentally possible cases, it provides valuable information on the environmental relevance of the adsorption of a chemical.[1]

1.2 The target substance for this study is presented in Table 1.1

Table 1.1 Target Substance

Target Substance	Acronym and Structure	3M Environmental Laboratory Identification Number
Perfluorooctanesulfonate	**PFOS** $C_8F_{17}SO_3^-$	TCR-00017-46

2.0 Regulatory Compliance

2.1 By complying with the requirements of OECD/OCDE Guideline 106, the data will meet the testing requirements of the European Community and Canada. The data will also be used to meet the testing requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA) in the United States.

2.2 This study will be conducted in accordance with the United States Environmental Protection Agency TSCA Good Laboratory Practice (GLP) Standards 40 CFR Part 792.

[1] According to OECD Guideline 106

3.0 Test Substance

3.1 ***Identification:*** Perfluorooctanesulfonate, $C_8F_{17}SO_3^-$ (PFOS)

3.2 ***Source:*** 3M Specialty Materials Division

3.3 ***Description:*** white powder

3.4 ***3M Environmental Laboratory ID#:*** TCR-00017-46

3.5 ***Storage Conditions:*** PFOS should be stored at ambient temperature or lower.

3.6 ***Purity:*** 97.3%

3.7 ***Expiration Date***: 2010

3.8 ***Retention Sample:*** A retention sample of the test substance (0.34 g) has been taken and stored frozen at -20°C ±5°C. The sample will be archived for at least the period as required by the EPA GLPs, Section 792.195.

3.9 ***Safety Precautions***:

3.9.1 Wear appropriate laboratory attire.

3.9.2 An MSDS sheet is available on this substance and is accessible using the 3M Environmental Laboratory Lotus Notes TCR database.

4.0 Control Substances

4.1 There are no control substances in this study.

5.0 Reference Substances

5.1 ***THPFOS***

5.1.1 ***Identification:*** 1H, 1H, 2H, 2H-Perfluorooctane Sulphonic Acid, $C_8H_5F_{13}O_3S$ (THPFOS)

5.1.2 ***Source:*** SynQuest Labs

5.1.3 ***Description:*** Fluffy, white crystals

5.1.4 ***3M Environmental Laboratory ID#:*** TCR-00017-047

5.1.5 ***Storage Conditions:*** THPFOS should be stored at ambient temperature or lower

5.1.6 ***Expiration Date:*** 2010

5.1.7 ***Retention Sample:*** A retention sample of 0.27 g of THPFOS has been taken and stored frozen at -20°C±5°C. The compound will be archived for at least the period as required by the EPA GLPs, Section 792.195.

5.1.8 ***Safety Precautions***:

5.1.8.1 Wear appropriate laboratory attire.

5.1.8.2 An MSDS sheet is available on this substance and is accessible using the 3M Environmental Lotus Notes TCR database.

5.2 ***PFOS***

5.2.1 ***Identification:*** Perfluorooctanesulfonate, $C_8F_{17}SO_3^-$ (PFOS)

5.2.2 ***Source:*** 3M Specialty Materials Division

5.2.3 ***Description:*** White powder

5.2.4 ***3M Environmental Laboratory ID#:*** TCR-00017-46

5.2.5 ***Storage Conditions:*** PFOS should be stored at ambient temperature or lower

5.2.6 ***Purity***: 97.3%

5.2.7 ***Expiration Date:*** 2010

5.2.8 ***Retention Sample:*** A retention sample of 0.34 g PFOS has been taken and stored frozen at -20°C ±5°C. The compound will be archived for at least the period as required by the EPA GLPs, Section 792.195.

5.2.9 ***Safety Precautions:***

5.2.9.1 Wear appropriate laboratory attire.

5.2.9.2 An MSDS sheet is available on this substance and is accessible using the 3M Environmental Lotus Notes TCR database.

6.0 Test System

6.1 The test system consists of three soil types, one sediment and one dried sludge in contact with a 0.01 M $CaCl_2$ aqueous solution.

6.2 The criteria for selection of the soils are based on Table 1 of the OECD Guidelines 106.

6.3 The soils used in this study were characterized using GLP guidelines.

6.4 Although not specified in OECD Guideline 106, one sediment was also selected as part of the test system.

6.5 Although not specified in OECD Guideline 106, one dried sludge was also selected as part of the test system.

7.0 Analytical Scheme and Control of Bias

7.1 OECD Guideline 106 is aimed at estimating the adsorption/desorption behavior of a substance on soils. The goal is to obtain a sorption value that can be used to predict partitioning under a variety of environmental conditions. Therefore, equilibrium adsorption coefficients for a chemical onto various soils are determined as a function of soil characteristics. Different soil types must be used

in order to cover as widely as possible the interactions of a given substance with naturally occurring soils. The soil parameters that are believed most important for adsorption are pH, organic carbon content, clay content and soil texture. The procedures outlined in the guideline are designed to evaluate the adsorption of a chemical on different soil types that have a varying range of pH, organic carbon content, clay content and soil texture. The guideline is comprised of three tiers:

7.1.1 Tier I: The Preliminary Study

7.1.1.1 The preliminary study is designed to determine:

a) a suitable analytical method

b) the adsorption of the test substance onto the surfaces of the test vessels

c) the equilibration time for adsorption and the amount of test substance adsorbed at equilibrium

d) a suitable desorption solvent

e) the soil:aqueous solution ratio

f) the stability of the test substance during the study period

7.1.1.2 The preparatory methodology for Tier I is described in the 3M Environmental Laboratory Method ETS-8-159: *Preparation of Soil Samples for Preliminary (Tier I) Sorption Studies for Fluorochemicals as the Test Substance* (based on OECD Guideline 106).

7.1.2 Tier II: Screening Study:

7.1.2.1 The screening study is designed to study the adsorption of the test substance in three different soil systems, one sediment and one dried sludge by means of:

a) adsorption kinetics at a single concentration

b) determination of distribution coefficients K_d and K_{oc}

7.1.2.2 The preparatory methodology for Tier II is described in the 3M Environmental Laboratory Method ETS-8-160: *Preparation of Soil Samples for Screening (Tier II) and Advanced (Tier III) Sorption Studies for Fluorochemicals as the Test Substance* (based on OECD Guideline 106).

7.1.3 Tier III: Adsorption Isotherms and Desorption Kinetics/Desorption Isotherms

7.1.3.1 The advanced study is designed to:

a) determine the Freundlich adsorption isotherms that, in turn, determine the influence of concentration on the extent of

adsorption onto the soils, sediment and sludge.

b) study desorption by means of determining desorption kinetics/Freundlich desorption isotherms

7.1.3.2 The preparatory methodology for Tier III is described in the 3M Environmental Laboratory Method ETS-8-160: *Preparation of Soil Samples for Screening (Tier II) and Advanced (Tier III) Sorption Studies for Fluorochemicals as the Test Substance* (based on OECD Guideline 106).

7.2 The adsorption/desorption studies will be conducted according to a modified version of the OECD Guideline for the Testing of Chemicals 106 "Adsorption-Desorption Using a Batch Equilibrium Method."

7.3 The preliminary section of OECD Guideline 106 (Tier I) refers to performance-based criteria. This document outlines minimally acceptable criteria to be met before actually beginning Tiers II and III. The study plan outlined for Tier I is an attempt to meet these criteria. The procedures used in the 3M Environmental Laboratory for Tier II and Tier III will follow as closely as practical the procedures outlined in Guideline 106. However, fluorochemicals have unique properties that may prohibit the criteria being precisely met. In these instances, modifications to the criteria may be necessary. Where this is the case, the reason for the modification will be stated and documented.

7.4 Sufficient controls and blanks will be incorporated as part of this study to ensure control of bias. These controls and blanks are described in more detail within this protocol.

8.0 Preparatory Methods

8.1 The study sample numbering scheme will be as follows:

8.1.1 Each study sample, each control sample, each control blank and all of their aliquots throughout the course of the study will have a unique identifier.

8.1.2 When the initial study samples are set up, each will be given a number beginning with the designator "E00-1311" which is the Laboratory Study Identification Number for this Study Protocol. These initial study samples will then be numbered sequentially for each section by the addition of a four digit number.

8.1.3 Each section will have its own unique section number (e.g. 1000, 2000, etc.) unless that section does not generate any "new" study samples, but continues use of the study samples from a previous section.

8.1.4 If more than one aliquot is taken from a study sample during the course of a section, a designator of S1, S2, S3, etc. will be included to uniquely identify that aliquot.

8.1.5 A study sample that is used in a following section will maintain its original unique identifier, but will continue with the appropriate addition of the S1, S2, S3 designators as described above.

8.1.6 Each spike sample will include all of the above designators as well as the additional designator of "-MS" added to it to identify is as a Matrix Spike.

8.1.7 Example Numbering Scheme: See Attachment A

Section A: Tier I, Preliminary Study

This section details the general methodology used to determine the range-finding and method development aspects of OECD Guideline 106.

8.2 Suitable Analytical Method:

8.2.1 Previous work with the test substance in a variety of matrices have strongly indicated that the analysis of PFOS in the aqueous/soil matrix described in OECD Guideline 106 can be accomplished by dilution of a portion of the centrifuged aqueous portion with methanol in a 1:1 ratio. The resulting aliquot can then be analyzed using HPLC/MS/MS.

8.2.2 Refer to 3M Environmental Laboratory Method ETS-8-159 for the preparation of the study samples to be used. Refer to 3M Environmental Laboratory Method ETS-8-110 for the analytical methodology.

8.2.3 Acceptable analytical method performance criteria is identified in 3M Environmental Laboratory Document ETS-8-005. Data generated from Section 8.2 will be evaluated using the criteria in the referenced document. If the analytical method meets these criteria, the method will be determined to be appropriate for this study.

8.2.4 If it is determined that a preparatory cleanup step is necessary, solid phase extraction may be used as described in 3M Environmental Laboratory Method ETS-8-154.

8.3 Suitable Container:

8.3.1 A minimally adsorbing container for the test substance is desirable for Tiers II and III of the Adsorption/Desorption study in order to generate the most useful information possible. However, due to the unique properties of fluorochemicals, significant adsorption of the test substance to the container walls is possible. Therefore, it may only be possible to determine which container from a variety of those tested will demonstrate the least adsorption of the test substance to it. This study will generate documentation that the container material used for Tiers II and III is the most suitable container of those tested.

8.3.2 Test a reasonable variety of materials/containers. They may include, but are not limited to, the following: Teflon® centrifuge tubes, Pyrex® glass centrifuge tubes, polypropylene centrifuge tubes, polystyrene centrifuge tubes, and styrene butadiene centrifuge tubes. (Use 15-mL centrifuge tubes whenever possible.)

8.3.3 Two concentrations of the test substance will be used (0.1 mg/L and 1 mg/L).

8.3.4 Equilibrate 12.5 mL of a 0.01 M $CaCl_2$ aqueous solution containing the test substance (at concentrations of 0.1 mg/L and 1 mg/L) for approximately 24 hours with the container. After that time, dilute a portion of the aqueous solution with methanol and analyze using HPLC/MS/MS to determine the amount of adsorption by the container. In addition, extract the walls of the container with methanol and analyze the methanol for the test substance.

8.3.5 Refer to Method ETS-8-159 for more details of this procedure.

8.3.6 Calculate the amount of test substance adsorbed onto each container.

8.3.7 The most appropriate container (based on minimal adsorptivity, convenience and cost) will be selected for use in Tiers II and III.

8.4 Suitable Desorption Solvent:

8.4.1 Previous work with the test substance has indicated that methanol will be a suitable solvent for the desorption steps described in OECD Guideline 106. This assumption will be further investigated and confirmed.

8.4.2 Dose the test substance (at 2 µg and 20 µg) onto 2.5 grams of a strongly adsorbing (high clay content) soil.

8.4.3 Extract the soils with three 2.5-mL portions of methanol to desorb the test substance back off the soil.

8.4.4 Refer to Method ETS-8-159 for more details of this procedure.

8.4.5 If this process cannot recover 80% or more of the test substance, investigate a minimum of three other solvents. (These alternative solvents will be chosen based on the experience and knowledge of the analytical team leader.)

8.4.6 Choose the most suitable solvent (based on maximum desorption, convenience and cost) of those tested.

8.5 Selection of Optimal Soil:Aqueous Solution Ratio, Determination of Equilibration Time, and Stability of the Test Substance under Conditions of the Study

8.5.1 Use two soil types and three soil:solution ratios (six experiments). One soil type should have a high organic carbon and low clay content, and the other soil should have a low organic carbon and high clay content. Prepare the following ratios of soil and test substance:

8.5.1.1 Equal parts (w:v) of soil to aqueous solution containing test substance

8.5.1.2 A 1:5 ratio (w:v) of soil to aqueous solution containing test substance

8.5.1.3 A 1:25 ratio (w:v) of soil to aqueous solution containing test substance

8.5.2 Dose the test substance such that the final concentration of test substance in solution is approximately 1 mg/L.

8.5.3 Prepare control samples containing only the test substance in 0.01 M $CaCl_2$ solution (no soil) in order to check the stability of the test substance in the 0.01M $CaCl_2$ solution.

8.5.4 Prepare background control samples containing soil and aqueous 0.01M $CaCl_2$ (no test substance) using the same soil:solution ratios as part of the study.

8.5.5 Prepare and analyze all study samples and controls in triplicate. In addition, spike a portion of one replicate from each triplicate set with additional test substance in order to determine spike recoveries.

8.5.6 Prepare a sufficient number of individual containers of each series such that a (triplicate) set of vials can be removed according to the following approximate time intervals: 0 hr, 2 hr, 4 hr, 8 hr, 16 hr, 24 hr, 36 hr and 48 hr.

8.5.7 Refer to Method ETS-8-159 for further details of this procedure.

8.5.8 The data generated from these study samples allow the estimation of the equilibrium plateau. Calculate the K_d value at equilibrium. Based on this K_d value, select appropriate soil:solution ratios such that the percentage adsorption is between 20% and 80%.

8.5.9 Based on the data generated from this section, determine the stability of the test substance under the conditions of the study.

Section B: Tier II Screening Study

8.6 Adsorption Kinetics at One Concentration of the Test Substance:

8.6.1 Prepare control samples containing only the test substance in 0.01 M $CaCl_2$ solution (no soil) in order to check the stability of the test substance in 0.01M $CaCl_2$ solution.

8.6.2 Include background control samples containing soil and aqueous 0.01M $CaCl_2$ (no test substance) in the same soil:solution ratios.

8.6.3 Set up and analyze all study samples and controls in triplicate. In addition, spike a portion of one of each triplicate with additional test substance in order to determine spike recoveries.

8.6.4 Select three soil types using the guidance given in Table I of OECD method 106, one sediment and one dried sludge.

8.6.5 Prepare a sufficient number of individual containers of each series such that a (triplicate) set of vials can be removed according to the following approximate intervals: 0 hr, 2 hr, 4 hr, 8 hr, 16 hr, 24 hr, 36 hr and 48 hr.

8.6.6 Refer to Method ETS-8-160 for further details of this procedure.

8.6.7 Calculate the percentage adsorption of the test substance onto the soil at each time point and/or time interval and plot % adsorption versus time. Calculate the distribution coefficient at equilibrium.

8.6.8 Calculate the organic carbon normalized adsorption coefficient.

Section C: Tier III

8.7 Desorption Kinetics–Serial Method:

8.7.1 Using the last set of sample vials (hour 48) from the Tier II Adsorption Kinetics study, centrifuge the vials and remove as much of the aqueous layer as possible.

8.7.2 Replace the volume of solution with an equal volume of fresh 0.01 M $CaCl_2$ solution containing no test substance.

8.7.3 Agitate the new mixture until the desorption equilibrium is reached (as determined in Section 8.5.

8.7.4 Throughout this time, at defined time intervals, prepare study sample aliquots for analysis.

8.7.5 Proposed time periods are: 2 hr, 4 hr, 8 hr, 16 hr, 24 hr, 36 hr and 48 hr.

8.7.6 Refer to Method ETS-8-160 for further details of this procedure.

8.7.7 Calculate the percentages of desorption at each time point and/or time interval and plot percentage desorption versus time.

8.7.8 Calculate the desorption coefficient at equilibrium.

8.8 Adsorption Isotherms:

8.8.1 Prepare control samples containing only the test substance at the same concentrations as the study samples in 0.01 M $CaCl_2$ solution (no soil).

8.8.2 Prepare background control samples containing soil and aqueous 0.01M $CaCl_2$ (no test substance) in the same soil:solution ratios as part of the study.

8.8.3 Prepare and analyze all study samples and controls in triplicate. In addition, spike a portion of one of each triplicate with additional test substance in order to determine spike recoveries.

8.8.4 For the adsorption isotherm determination, prepare five sample sets with initial concentrations of approximately 0.05, 0.2, 0.5, 1.0, and 5.0 mg/L for each of the selected three soil types, sediment and sludge. Use the

same soil:solution ratio as that used in the Tier II study. *(If the amount of adsorption of the test substance onto the soils will produce concentrations in the adsorption solvent which would border on, or be below, the quantification limits of the test substance, the concentration levels may need to be increased. The criteria that should be met are that the concentration range should span two orders of magnitude.)*

8.8.5 Samples are placed in an orbital shaker until equilibrium time is established (or for a maximum of 48 hours).

8.8.6 Refer to Method ETS-8-160 for further details of this procedure.

8.8.7 Analyze the aqueous portion to (indirectly) determine the amount of test substance adsorbed onto the soil.

8.8.8 Plot the adsorbed mass of test substance per unit mass of soil as a function of the equilibrium concentration of the test substance.

8.9 Desorption Isotherms:

8.9.1 Determine Freundlich desorption isotherms on the soils used in the adsorption isotherms study.

8.9.2 Using the last set of study samples generated from the Adsorption Isotherm Study (Section 8.8), perform the desorption test using 0.01M $CaCl_2$ solution as described in the "Desorption Kinetics" section (exception: the aqueous phases will be analyzed only once, at desorption equilibrium.)

8.9.3 Refer to Method ETS-8-160 for further details of this procedure.

8.9.4 Calculate the amount of the test substance desorbed.

8.9.5 Plot the content of test substance remaining adsorbed on the soil at desorption equilibrium as a function of the equilibrium concentration of the test substance in solution.

8.9.6 In addition, determine a mass balance by finding the concentration of the substance desorbed using an organic solvent (methanol) from the soil for one concentration.

8.9.7 Refer to Method ETS-8-160 for further details of this procedure.

9.0 Analytical Methods

9.1 ETS-8-110. Analysis of Perfluorooctanesulfonate or Other Fluorochemicals in Water Extracts Using HPLC-Electrospray/Mass Spectrometry/Mass Spectrometry

9.2 Additional methods may be developed at a later time and will be listed as protocol amendments.

10.0 Data Quality Objectives

10.1 ***Tier I only***—Although the statistical data will be generated from the Tier study, the primary purposes of Tier I are to determine an appropriate container, analytical method, desorption solution, and soil:solution ratio. Tier I is also for range-finding in order to successfully proceed to Tiers II and III of the adsorption/desorption study.

10.2 ***Linearity***—The measure of fit of the calibration curve, as measured by the coefficient of determination (r^2) will be 0.980 or greater. The curve may include the origin, but should not be "forced" through the origin.

10.3 ***Limits of Detection/Quantitation***—The LOQ is estimated at 5 µg/L at the instrument level. This would result in a Limit of Quantitation of 10 µg/L for the sample (1:1 dilution in the preparation procedure). However, during the study, the LOQ will be equal to the lowest calibration standard used in the calibration curve and that is greater than two times the background "noise".

10.4 ***Matrix Spike Frequency***—An aliquot of one replicate from each triplicate set will be spiked with a known amount of substance, except as noted in the referenced methods.

10.5 ***Acceptable Recoveries***—Upon completion of the analytical method validation portion of the study, an amendment to the protocol will be written defining acceptable criteria based on the validation results.

10.6 ***Use of Reference Materials***—

10.6.1 THPFOS—The reference material THPFOS will be used to determine gross instrument failure when using HPLC/MS/MS. Gross instrument failure is defined by a ±50% deviation in standards and calibration checks. THPFOS is not used for quantitative purposes because the magnitude of response may not be consistent between standards and samples, although the response among a single group is expected to be consistent. THPFOS will be added to samples as the last step of the preparatory procedure. An equivalent concentration of the reference material will also be added to the calibration standards.

10.6.2 PFOS (TCR-00017-46) will be used to make the calibration standards, as well as being used as the test substance. Since commercial standards of known purity are unavailable for each isomer and since the isomer ratios of PFOS very from lot to lot, using the same lot number for the calibration standards provides the most accurate measure of the concentration of PFOS in the analyzed samples.

10.7 ***Use of Confirmatory Methods***—No confirmatory methods will be used. The analytical method uses a very selective detector (mass spectrometer) with a chromatographic separation method.

10.8 ***Demonstration of Specificity—***

10.8.1 HPLC/MS/MS—Unique and characteristic product ions are monitored for each analyte. In addition, a chromatographic separation method is employed.

10.9 ***Precision—***

10.9.1 Precision will be measured by determining the relative Standard Deviation of triplicate samples.

10.9.2 Upon completion of the analytical method validation portion of the study, an amendment to the protocol will be written defining acceptable criteria based on the validation results.

10.10 ***Quality Control Blanks***—The area count of the peak of the test substance will be no more than half the area count of the average of the area counts (from the opening and closing curves) of the test substance in the lowest standard used in making the calibration standards.

10.11 ***Laboratory Controls***—Laboratory control samples will be used throughout the study to ensure reliable results are achieved. Laboratory control data will be collected and compared to the data collected from the study samples. The report will include appropriate calculations based on the differences between the controls and the study samples. The final report will also include any appropriate tables, information or observations pertaining to the control samples.

11.0 Subcontracted Analysis

11.1 Not Applicable.

12.0 Statistical Methods and Calculations

12.1 Statistical methods for the analytical results will be limited to the calculations of means, standard deviations, relative standard deviations, and percent recoveries (as appropriate).

12.2 Percent recoveries will be calculated using the following equation:

$$[(A-B)/C] * 100$$

where:
A = analyzed concentration of the spiked replicate sample
B = analyzed concentration of the replicate sample (without spike)
C = true concentration of the spike

12.3 Calculations will be made using the appropriate equations from the OECD Guideline 106 (pages 14-18).

12.4 Report

A report of the results of the study will be prepared by 3M Environmental Laboratory. The report will include, but not be limited to, the following, when applicable:

12.4.1 Name and address of the facilities performing the study,

12.4.2 Dates upon which the study was initiated and completed.

12.4.3 A statement of compliance by the Study Director addressing any exceptions to Good Laboratory Practice Standards.

12.4.4 A copy of the protocol, and any amendments and deviations.

12.4.5 The identification of the test substance (PFOS) and the results of composition analyses.

12.4.6 A description of the methods used to conduct the test(s). The report will contain updated methods incorporating any changes or improvements.

12.4.7 A description of the test system.

12.4.8 A description of any circumstances that may have affected the quality or the integrity of the data.

12.4.9 The name of the Study Director and the names of other scientists, professionals, and supervisory personnel involved in the study.

12.4.10 A description of the transformations, calculations, or operations performed on the data, a summary and analysis of the analytical chemistry data, and a statement of the conclusions drawn from the analyses.

12.4.11 Statistical methods used to evaluate the data, if applicable.

12.4.12 The signed and dated reports of each of the individual scientists or other professionals involved in the study, if applicable.

12.4.13 The location where raw data and the final report are to be stored.

12.4.14 A statement prepared by the quality assurance unit listing the dates that study inspections and audits were made and the dates of any findings reported to the Study Director and Management.

12.5 If it is necessary to make corrections or additions to a final report after it has been accepted, the changes will be made in the form of an amendment issued by the Study Director. The amendment will clearly identify the part of the final report that is being amended, provide the reasons for the amendment, and will be signed by the Study Director.

13.0 Quality Assurance

13.1 The 3M Environmental Laboratory Quality Assurance Unit will audit this protocol, the study conduct, and the final report in accordance with GLP regulations and 3M Environmental Laboratory standard operating procedures.

14.0 Location of Raw Data, Records, and Final Report

14.1 Original data or copies thereof, will be available at 3M Environmental Laboratory. When the final report is completed (Tiers II and III), all original paper data, including those items listed below, will be retained in the archives of 3M Environmental Laboratory following signing of the final report.

14.2 The following raw data and records will be retained in the study folder in the archives according to 3M Environmental Laboratory SOPs.

14.2.1 Approved protocol and amendments

14.2.2 Study correspondence

14.2.3 Shipping records

14.2.4 Raw data

14.2.5 Approved final report (original signed copy)

14.2.6 Electronic copies of data

14.3 The following supporting records will be retained separately from the study folder in the archives according to 3M Environmental Laboratory SOPs:

14.3.1 Training records

14.3.2 Calibration records

14.3.3 Instrument maintenance logs for LC/MS

14.3.4 Standard operating procedures, equipment procedures, and methods

15.0 Sample Retention

15.1 A portion of the test substance used in the study will be retained in the laboratory for a period of not less than 2 years after a report is issued.

15.2 Tier I is used for preliminary purposes only. The study samples generated from this portion of the study will be retained for a minimum of two weeks after the Tier I data has been reviewed by the Quality Assurance unit and the issuance of a QA audit report.

15.3 Tier II and Tier III study samples will be maintained in the laboratory for a period of time as specified by regulation or as long as the quality of the preparation affords evaluation. However, samples will not be maintained more than 10 years after the effective date of the final test rule (if applicable). 3M Environmental Laboratory standard operating procedures also apply to sample retention times.

15.4 Tier II and Tier III study samples of the prepared HPLC/MS/MS sample vials will be retained and refrigerated for a period of not less than six months from the time of analysis.

16.0 Protocol Amendments and Deviations

16.1 Amendments and deviations to the protocol will be in the form of written amendments signed by the Study Director and the Sponsor Representative. Amendments will be considered as part of the protocol and will be attached to the final protocol. All changes to the protocol will be indicated in the final report. Any other changes will be in the form of written deviations, signed by the Study Director and filed with the raw data.

17.0 References

17.1 Organization of Economic Cooperation and Development. OECD Guideline for the Testing of Chemicals. "Adsorption-Desorption Using a Batch Equilibrium Method," OECD Guideline 106 Adopted 21 January 2000

17.2 United States Environmental Protection Agency. OPPTS 835.1220 Sediment and Soil Adsorption/Desorption Isotherm. Prevention, Pesticides and Toxic Substances: Fate, Transport and Transformation Test Guidelines. EPA 712-C-98-048. 1998

17.3 United States Environmental Protection Agency. OPPTS 835.1110 Activated Sludge Sorption Isotherm. Prevention, Pesticides and Toxic Substances: Fate, Transport and Transformation Test Guidelines. EPA 712-C-98-298. January 1998

17.4 3M Environmental Laboratory Method ETS-8-159: Preparation of Soil Samples for Preliminary (Tier I) Sorption Studies for Fluorochemicals as the Test Substance

17.5 3M Environmental Laboratory Method ETS-8-160: Preparation of Soil Samples for Screening and Advanced (Tier II and Tier III) Sorption Studies for Fluorochemicals as the Test Substance

17.6 3M Environmental Laboratory Method ETS-8-110: Analysis of Perfluorooctanesulfonate or Other Fluorochemicals in Water Extracts Using HPLC-Electrospray/Mass Spectrometry/Mass Spectrometry

17.7 3M Environmental Laboratory Method ETS-8-154: Determination of Perfluorooctane sulfonate (PFOS), Perfluorooctane Sulfonylamide (PFOSA), and Perfluorooctanoate (POAA) in Water by Liquid-Solid Extraction and High-Performance Liquid Chromatography/Tandem Mass Spectrometry (HPLC/MS/MS)

18.0 Attachments

18.1 ***Attachment A***: Eample Numbering Scheme

Attachment A: Example Numbering Scheme

Matrix Solutions
E00-1311-0001
E00-1311-0002
E00-1311-0003
Analytical Samples made from Matrix Solutions
E00-1311-0004
E00-1311-0005
E00-1311-0006
Suitable Container

E00-1311-1016	---	S1	S2
E00-1311-1017	---	S1	S2
E00-1311-1018	---	S1	S2
E00-1311-1018	MS	S1	S2

Suitable Desorption Solvent

E00-1311-2010	---	S1
E00-1311-2011	---	S1
E00-1311-2012	---	S1
E00-1311-2012	MS	S1

Optimal Ratio

E00-1311-3094	---	S1
E00-1311-3095	---	S1
E00-1311-3096	---	S1
E00-1311-3096	MS	S1

Optimal Ratio-Mass Balance

E00-1311-3094	---	S2
E00-1311-3095	---	S2
E00-1311-3096	---	S2
E00-1311-3096	MS	S2

Adsorption Kinetics-One Concentration

E00-1311-4031	---	S1
E00-1311-4032	---	S1
E00-1311-4033	---	S1
E00-1311-4033	MS	S1

Desorption Kinetics-One Concentration

E00-1311-4031	---	S2	S3	S4	S5	S6	S7	S8
E00-1311-4032	---	S2	S3	S4	S5	S6	S7	S8
E00-1311-4033	---	S2	S3	S4	S5	S6	S7	S8
E00-1311-4033	MS	S2	S3	S4	S5	S6	S7	S8

Adsorption Isotherms-Multiple concentrations

E00-1311-5058	---	S1
E00-1311-5059	---	S1
E00-1311-5060	---	S1
E00-1311-5060	MS	S1

Desorption Isotherms-Multiple concentrations

E00-1311-5058	---	S2	S3
E00-1311-5059	---	S2	S3
E00-1311-5060	---	S2	S3
E00-1311-5060	MS	S2	S3

Study Title

Soil Adsorption/Desorption Study of Perfluorooctanesulfonate (PFOS) – Test Control Reference #TCR-00017-46

PROTOCOL AMENDMENT NO. 1

Amendment Date:

October 30, 2000

Performing Laboratory

3M Environmental Laboratory
Building 2-3E-09
935 Bush Avenue
St. Paul, MN 55144-1000

Laboratory Project Identification

3M Environmental Laboratory Study LIMS #E00-1311

This amendment modifies the following portion(s) of the protocol:

1. PROTOCOL READS: SECTION 8.2.1: Previous work with the test substance in a variety of matrices have strongly indicated that the analysis of PFOS in the aqueous/soil matrix described in OECD Guideline 106 can be accomplished by a dilution of a portion of the centrifuged aqueous portion with methanol in a 1:1 ratio.

AMEND TO READ: Previous work with the test substance in a variety of matrices has strongly indicated that the analysis of PFOS in the aqueous/soil matrix described in OECD Guideline 106 can be accomplished by a dilution of a portion of the centrifuged aqueous portion with methanol in at least a 1:1 ratio.

REASON: Some of the samples in this study were diluted at a level other than 1:1.

2. PROTOCOL READS: SECTION 8.2.1: The resulting aliquot can then be analyzed using HPLC/MS/MS.

AMEND TO READ: The resulting aliquot can then be analyzed using HPLC/MS.

REASON: Samples in this study were analyzed by single and triple quadrupole instruments, as well as MSD's. The term "LC/MS" encompasses all these instruments.

3. PROTOCOL READS: SECTION 8.4.2: Dose the test substance (at 2ug and 20ug) onto 2.5 grams of a strongly adsorbing (high clay content) soil.

AMEND TO READ: Dose the test substance (at 0.75ug and 7.5ug) onto 2.5 grams of a strongly adsorbing (high clay content) soil.

REASON: The test substance concentrations were modified to more closely resemble the concentrations used in the rest of the study.

4. PROTOCOL READS: SECTION 8.4.5 If this process cannot recover 80% or more of the test substance, investigate a minimum of three other solvents.

AMEND TO READ: If this process cannot recover 80% or more of the test substance up to three other solvents may be investigated. However, the test substance in question may be so strongly bound to the soil that no solvent will yield ideal recoveries. If one or more of the ratios tested in the "Optimal Soil:Solution Ratio" portion of the experiment shows greater that 80% adsorption onto the high clay content soil at equilibrium this may be assumed to be the case. In this case no further solvent testing will be needed.

REASON: The test substance demonstrated a very strong adsorption onto the high clay content soils. Based on previous experience it was reasoned that alternative solvents were unlikely to yield acceptable recoveries.

5. PROTOCOL READS: SECTION 8.5.2 Dose the test substance such that the final concentration of test substance is approximately 1mg/L.

AMEND TO READ: Dose the test substance such that the final concentration of test substance is approximately 5mg/L.

REASON: The test substance showed strong adsorption in earlier portions of the study, and it was necessary to increase the concentration.

6. PROTOCOL READS: SECTION 9.2 Additional methods may be developed at a later time and will be listed as protocol amendments.

AMEND TO READ: ETS-8-155. Analysis of Potassium Perfluorooctanesulfonate or Other Fluorochemicals in Wastestream or Water Extracts Using HPLC-Electrospray/Mass Spectrometry.

REASON: This method was also used in the analysis of the study samples.

7. PROTOCOL READS: SECTION 10.5 Upon completion of the analytical method validation portion of the study, an amendment to the protocol will be written defining acceptable criteria based on the validation results.

AMEND TO READ: Matrix spikes and laboratory control sample recoveries will be acceptable if at least 80% of them are within ±30% of the theoretical value.

REASON: Acceptable criteria were decided upon after the signing of the protocol.

8. PROTOCOL READS: SECTION 10.8.1 HPLC/MS/MS

AMEND TO READ: HPLC/MS.

REASON: Samples in this study were analyzed by single and triple quadrupole instruments, as well as MSD's. The term "LC/MS" encompasses all these instruments.

9. PROTOCOL READS: SECTION 10.9.2 Upon completion of the analytical method validation portion of the study, an amendment to the protocol will be written defining acceptable criteria based on the validation standards.

AMEND TO READ: The Relative Standard Deviations of triplicate samples will be acceptable if at least 80% of them are less than or equal to 30%. In addition, a Q-test may be used to exclude outliers in data sets.

REASON: Acceptable criteria were decided upon after the signing of the protocol.

10. PROTOCOL READS: SECTION 12.2 Percent recoveries will be calculated using the following equation: [(A-B)/C]*100
where:
A = analyzed concentration of the spiked replicate sample
B = analyzed concentration of the replicate sample (without spike)
C = true concentration of the spike

AMEND TO READ: Percent recoveries will be calculated using the following equation: [(A-B)/C]*100
where:
A = analyzed concentration of the spiked replicate sample
B = analyzed concentration of the replicate sample (without spike)**
C = theoretical concentration of the spike
**If the replicate sample is below the LOQ it will not be subtracted from the concentration of the spikes replicate sample.

REASON: Clarification of the term "true" concentration, and explanation of the formula. Since nothing can be said about a sample that is below the LOQ it should not be used in any calculations.

11. PROTOCOL READS: SECTION 15.4 HPLC/MS/MS

AMEND TO READ: HPLC/MS.

REASON: Samples in this study were analyzed by single and triple quadrupole instruments, as well as MSD's. The term "LC/MS" encompasses all these instruments.

12. PROTOCOL READS: SECTION 17.8 N/A (there was no previous section 17.8)

AMEND TO READ: 3M Environmental Laboratory Method ETS-8-155: Analysis of Potassium Perfluorooctanesulfonate or Other Fluorochemicals in Wastestream or Water Extracts Using HPLC-Electrospray/Mass Spectrometry.

REASON: This method was not referenced in the protocol, but was used in the analysis of the study samples.

Amendment Approval

William K. Reagen, Sponsor Representative — Date: 05/17/01

Mark E. Ellefson, Study Director — Date: 5/17/01

Appendix B: Analytical Methods

This appendix presents the analytical methods used in the present study:

ETS-8-159 "Preparation of Soil Samples for Preliminary (Tier I) Sorption Studies for Fluorochemicals as the Test Substance"

ETS-8-160 "Preparation of Soil Samples for Screening (Tier II) and Advanced (Tier III) Sorption Studies for Fluorochemicals as the Test Substance"

OECD 106 "Adsorption – Desorption Using a Batch Equilibrium Method"

ETS-8-155 "Analysis of Potassium Perfluorooctanesulfonate or Other Fluorochemicals in Waste Stream of Water Extracts Using HPLC-Electrospray/Mass Spectrometry"

ETS-8-110 "Analysis of Potassium Perfluorooctanesulfonate or Other Fluorochemicals in Water Extracts Using HPLC-Electrospray/Mass Spectrometry/Mass Spectrometry"

3M ENVIRONMENTAL LABORATORY

METHOD

PREPARATION OF SOIL SAMPLES FOR PRELIMINARY (TIER I) SORPTION STUDIES FOR FLUOROCHEMICALS AS THE TEST SUBSTANCE (BASED ON OECD GUIDELINE 106)

Method Number: ETS-8-159.0

Adoption Date:

Revision Date:

Author: *Linda Goodspeed, Cindy Carlson, Mark Ellefson*

Approved By:

Laboratory Manager	Date 10/20/00
Group Leader	Date 10/20/00
Technical Reviewer	Date 10/23/00

1.0 SCOPE AND APPLICATION

1.1 By complying with the requirements of the OECD Guideline 106, "Adsorption - Desorption Using A Batch Equilibrium Method", the data will meet the testing requirements of the European Community and Canada.

1.2 This method complies with OPPTS 835.1220 "Sediment and Soil Adsorb/Desorb Isotherm" and is also intended to meet testing requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA) for the United States.

1.3 This method describes the procedures used to prepare method development study samples and subsequently analyze them in order to demonstrate applicability. This method precedes testing methods for the screening (Tier I) and the advanced (Tier III) portions of the Sorption Studies.

1.4 This method is based on the "Preliminary" subsection of OECD Guideline 106: "Adsorption - Desorption Using A Batch Equilibrium Method".

1.5 The "Preliminary" portion of OECD Guideline 106 requires pre-testing done (method development) in order to insure applicability of the subsequent tiers of the Guideline (the "Screening" portion and the "Advanced" portion). The required pre-testing is designed to determine:

- **1.5.1** a suitable analytical method
- **1.5.2** the adsorption of the test substance on the surfaces of the test vessels
- **1.5.3** the equilibration time for adsorption and the amount of test substance adsorbed at equilibrium
- **1.5.4** a suitable desorption solvent
- **1.5.5** the soil:aqueous ratio
- **1.5.6** the stability of the test substance during the study period

1.6 In addition, this internal 3M method (ETS-8-159) will address determination of an approximation of the statistical variance of precision and accuracy data that may be expected from the continuation of the procedure to the screening and advanced tiers of OECD Guideline 106.

1.7 This method is applicable to the testing of fluorochemical substances manufactured or distributed by 3M.

1.8 An approximate solubility concentration of the test substance in water should be established prior to the commencement of this method, so that appropriate concentrations of the test substance in the study samples are used throughout.

2.0 SUMMARY OF METHOD

2.1 Suitable Analytical Method:

2.1.1 A soil of high adsorbability (high organic carbon and clay content) is agitated with an appropriate volume of 0.01 M $CaCl_2$ solution at a 1:5 (w:v) ratio for a minimum of 4 hours. The mixture is centrifuged and the aqueous phase filtered, if necessary. A certain volume of the test substance stock solution is added to the latter to reach a nominal concentration within the concentration range that is likely to occur during the test. This "study sample" is then prepared for later analysis using HPLC/MS. After the study sample has been analyzed, a determination is made as to whether HPLC/MS is a suitable analytical method for the test substance.

2.2 Suitable Desorption Solvent:

2.2.1 Methanol is investigated as the first choice for a suitable desorption solvent for the test substance. A high clay content soil is dosed with the test substance at two levels (1 µg, 10 µg). The test substance is then extracted from the study samples three times with methanol. The combined methanol extracts are then prepared for analysis by HPLC/MS.

2.2.2 If the extraction results in a total of ≥80% desorption, no further testing of solvents is necessary. Otherwise, up to three other solvents will be investigated in a similar manner until the criteria (≥80% desorption) are met.

2.2.3 If the criteria are not met, the most suitable solvent among those tested will be chosen.

2.3 Suitable (Minimally Adsorbing) Container

2.3.1 Up to five containers comprising a variety of materials are exposed to a 0.01 M $CalCl_2$ aqueous solution dosed with the test substance for a minimum of 24 hours. The resulting solution is analyzed for the test substance using HPLC/MS. In addition, an extraction of the walls of the container with methanol is made. This extract is analyzed as well. Any container that adsorbs less than 10% of the test substance onto its walls is considered suitable for use as a study container. Alternatively, the container demonstrating the least amount of test substance absorption is chosen from those tested.

2.4 Selection of Optimal Soil: Aqueous Solution Ratio, Determination of Equilibration Time, and Stability of the Test Substance under Conditions of the Study

2.4.1 The optimal soil: aqueous ratio is determined by using two types of soils and three soil: solution ratios. The test substance is dosed into an aqueous solution in contact with the soil. Sufficient tubes are prepared such that tubes can be removed after a period of time (spanning 0 to 48 hr) and the aqueous portion analyzed. *Equilibrium* is determined by plotting the adsorption of the test substance over time. The *optimal soil: solution ratio* is determined by a comparison of the amount of adsorption of the test substance at equilibrium for the various soil: solution ratio study samples. Acceptable values are soil: solution ratios that give a depletion of the test chemical above 20% and preferably above 50% at equilibrium. *Stability* is determined by a mass balance determination. The mass balance determination is conducted on both soils and on the one soil:solution ratio per soil that gives a depletion of the test chemical above 20% and preferably above 50% at equilibrium.

2.5 In all cases, adequate quality assurance samples are prepared and analyzed.

3.0 DEFINITIONS

3.1 Test Substance: Any substance (mixture or controlled compound) added or administered to the test system for the purpose of biological or chemical measurements.

3.2 Target Analyte: In the analytical phase of a study, the chemical(s) singled out in the analyses is the target analyte. The target analyte may be identical to the test substance used in the in-life phase of the study, or a by-product of that chemical.

3.3 Reference Substance: A material or substance, one or more properties or constituents of which are sufficiently well established for it to be used for the calibration of an apparatus, the assessment of a measurement method, or for assigning values to materials.

3.4 Test system: Any animal, plant, microorganism, chemical, or physical matrix (including soil or water) or any subpart thereof, to which the test, control, or reference substance is administered or added for study.

3.5 Study sample: A sample containing the test substance in contact with the test system, or any of the subsequent samples generated from the initial set up.

3.6 Control Sample: A sample containing the test substance, but which does not include the entire test system or any subsequent samples generated from the initial set up. In most, but not all cases, control samples go through all of the same processes as the study samples.

3.7 Matrix Blank: A sample that has not been exposed to the test substance and/or target analyte. Matrix blanks may or may not include the entire test system. The term matrix blank also includes any subsequent samples generated from the initial matrix blank set up. In most, but not all cases, matrix blanks go through all of the same processes as the study samples.

3.8 Solvent Blank: Aqueous or organic solvent that has not been exposed to the test substance and/or target analyte, and is analyzed to demonstrate the absence of target analytes in the solvent.

4.0 WARNINGS AND CAUTIONS

4.1 Health and Safety Warnings:

4.1.1 Many of the fluorochemicals used in the laboratory are not completely characterized for toxicity and other health hazards. They should be treated as potential health hazards. Proper equipment such as gloves and safety glasses should be worn when working with these chemicals or any solvents. Skin contact and inhalation should be avoided. Preparation of the stock standards should be done under a hood. All spills should be wiped up immediately.

4.2 Cautions:

4.2.1 Contamination of glassware and equipment by the compounds of interest are an on-going issue within laboratories. Care must be taken to rinse any reusable glassware with appropriate solvents before and after the glassware is used. Triple rinsing with methanol or acetone is recommended to remove fluorochemicals from the glassware. Clean all spills immediately to avoid present or future contamination.

4.2.2 Use disposable glassware whenever possible.

5.0 INTERFERENCES

5.1 Any compound that co-elutes with the test substance or the reference material during the HPLC/MS analysis can interfere with quantification.

6.0 EQUIPMENT

6.1 Balance capable of weighing to 0.1 mg, such as OHAUS Brand Model GA200

6.2 Centrifuge capable of maintaining 4,000 ± 200 rpm, such as Jouan Brand Model C412

6.3 Orbital shaker capable of a gentle rotation and temperature controlled capable of maintaining 23 ± 3 C, such as Lab-Line Model Environ-Shaker

6.4 Vacuum Pump, such as Gast #DOA-P104-AA (Optional)

7.0 SUPPLIES AND MATERIALS

7.1 15-mL polypropylene centrifuge tubes, such as VWRbrand® Centrifuge Tubes, catalog number 21008-089
7.2 15-mL polystyrene centrifuge tubes such as VWRbrand® Centrifuge Tubes, catalog number 21008-202
7.3 15-mL styrene butadiene centrifuge tubes such as VWRbrand® Centrifuge Tubes, catalog number 21008-226
7.4 15-mL glass centrifuge tubes
7.5 30-mL Teflon centrifuge tubes
7.6 50-mL plastic centrifuge tubes, such as VWRbrand® 20171
7.7 Syringes, 10 uL, 25 uL, 1000 uL
7.8 Volumetric flasks, 10-mL, 100-mL, 1-L, 5-L, Nalgene® and/or glass
7.9 Automatic or manual dispenser, capable of dispensing liquid with ±0.1 mL accuracy
7.10 250-1000 uL manual pipettor(s) and plastic pipette tips, or equivalent
7.11 Autosampler vials, 1.5 to 2 mL GC/HPLC, such as Kimble # 60820-1232 or equivalent
7.12 Autosampler vial caps, such as Wheaton # 224211-01
7.13 GC/HPLC autovial crimper(s) and decrimper(s)
7.14 Appropriately sized storage containers with tight-fitting caps for solutions
7.15 Glassware, miscellaneous
7.16 150-mL Nalgene® bottles or equivalent
7.17 pH paper capable of distinguishing pH to ±0.5 units.

8.0 REAGENTS, SOLUTIONS AND STANDARDS

8.1 Reagents

8.1.1 Methanol, HPLC grade, such as J.T. Baker #9093.
8.1.2 ASTM Type I water, 18.0 MΩ or better.
8.1.3 $CaCl_2$, Anhydrous, to meet ACS specifications (>96% pure), such as J.T. Baker #1311.
8.1.4 Soils: Appropriate soil types selected from Table 1 below. (Soils should be air-dried at ambient temperature and sieved to a particle size ≤2 mm.)

Table 1

Soil Types	pH range (in 0.01 M CaCl2)	Organic Carbon content (%)	Clay Content (%)	Soil Texture
1	4.5-5.5	1.0-2.0	65-80	Clay
2	>7.5	3.5-5.0	20-40	Clay loam
3	5.5-7.0	1.5-3.0	15-25	Silt loam
4	4.0-5.5	3.0-4.0	15-30	Loam
5	<4.0-6.0	<0.5-1.5	<10-15	Loamy sand
6	>7.0	<0.5-1.0	40-65	Clay loam/clay
7	<4.5	>10	<10	Sand/loamy sand

NOTE: It may not be possible to obtain soils that match all criteria. Soils will be used that match as closely as possible the parameters as listed. Exceptions will be noted.

8.1.5 Sediment:
NOTE: Sediment may be used in addition to the soil types listed, but is not required as part of this method.

8.1.6 Sludge: In addition to soil and/or sediment, sludge may be used as appropriate to achieve the goals of the study in question. The use of sludge is not required by this method.

8.1.7 Test Substance: Characterized by HPLC/MS

8.1.8 Reference Material: THPFOS, 1H, 1H, 2H, 2H- perfluorooctanesulfonic Acid

8.2 Solutions and Standards:
NOTE: Different quantities of any of the solutions may be prepared, as long as solutions are documented as to how they were made.

8.2.1 Solution A: 0.01 M $CaCl_2$ Solution
5.55±0.02 grams of $CaCl_2$ dissolved in 5.0 L of ASTM Type I water. This solution is may be stored for up to 100 days at room temperature.

8.2.2 Solution B: ~50 mg/L test substance in 0.01 M $CaCl_2$ Solution
Dissolve 0.050 ± 0.005 grams of test substance in 1.0 liter of 0.01 M $CaCl_2$. Use volumetric flask and record weight. Immediately transfer into a Nalgene® container(s). This solution is may be stored for up to 35 days at room temperature. However, it is good practice to take an aliquot of this solution and prepare it to run along with samples prepared at the same time to monitor for any possible degradation and/or adsorption to the container.

9.0 SAMPLE HANDLING

9.1 All study samples generated and prepared for analysis by HPLC/MS may be left at room temperature for a maximum of 15 days, or refrigerated for a maximum of six months.

9.2 The autovial study samples may be reanalyzed at any time throughout the study. However, autovials whose caps have been pierced should have the caps replaced within 3 days.

10.0 QUALITY CONTROL

10.1 Matrix Blanks consisting of the following types will be prepared for the study:
10.1.1 0.01 M $CaCl_2$ in contact with each of the selected soil types

10.2 Matrix Spikes (MS): One matrix spike will be prepared for each sample set, except as noted in the method

10.3 Solvent Blanks will be prepared for the study:
10.3.1 0.01 M $CaCl_2$ and No Soil
10.3.2 Methanol and No Soil (in some sections)

10.4 Control Samples: Control Samples per following type will be prepared for the study:
10.4.1 Test substance in 0.01 M $CaCl_2$ only
10.4.2 Test substance in Methanol only (in some sections)

10.5 Sample Replicates: Sample sets will consist of a "sample," "duplicate," and "triplicate," except as noted in the method

10.6 Surrogate(s): No surrogate will be used in this study.

10.7 Reference Material: THPFOS will be used as the reference material.

11.0 CALIBRATION AND STANDARDIZATION

11.1 This section is outside the application of this method.

12.0 PROCEDURES

12.1 **Labeling of Samples (Centrifuge Tubes) and Autovials**—Centrifuge tubes and autovials should be prelabeled, according to the following scheme:

- **12.1.1** The study project should be given a unique Lab request number from 3M's Environmental Laboratory Sample Control Numbering system.
- **12.1.2** Study Samples, Labeling of Centrifuge Tubes: Each individual sample and QC sample that is set up in the Suitable Analytical Work section will have a unique identifier.
- **12.1.3** If necessary, aliquots taken from the study samples will be uniquely identified by using the initial study sample ID and then adding an additional designator for each aliquot removed from the study sample.
- **12.1.4** All autovials will clearly identify any "extra" dilution made of its contents.
- **12.1.5** All Matrix Spike samples will contain all of the above information, as well as the designator "MS."

12.2 **Suitable Analytical Work**

- **12.2.1** Each soil used in this study must be tested for the suitability of the proposed analytical work. Carry each soil to be used through the analysis described in this section.
- **12.2.2** Weigh 20 grams of soil into a vessel and record the weight. (Do this in triplicate.)
- **12.2.3** Add 100 mL of 0.01 M $CaCl_2$ solution.
- **12.2.4** Place the soil: aqueous solution in an orbital shaker with gentle rotation at ambient temperature for a minimum of four hours.
- **12.2.5** Centrifuge the contents until the aqueous portion is clear (transfer into smaller centrifuge tubes if necessary).
- **12.2.6** Transfer this solution into a clean container, label as "Matrix Solution" and give a unique ID number to it. Store under refrigeration.
- **12.2.7** Matrix Blanks:
  - **12.2.7.1** Prepare by aliquotting 1.00mL of the Matrix Solution directly into an autovial. Prepare one Matrix Blank for each Matrix Solution.
- **12.2.8** Study Samples:
  - **12.2.8.1** Add 100 µL of stock test substance solution (Solution B) to a 10 mL volumetric flask. (Volume of stock solution added may be adjusted. Final concentration should be approximately 0.500 mg/L). Dilute each flask to the mark with the Matrix Solution. Do this in triplicate for each Matrix Solution (a total of nine flasks).
  - **12.2.8.2** Label with unique ID number.
  - **12.2.8.3** Continue by withdrawing 1.0 mL of the study sample and dispensing into the same prelabeled autovial.
- **12.2.9** Add THPFOS internal standard prior to analysis.
- **12.2.10** Analyze autovials using appropriate methodology to determine concentration of test substance.
- **12.2.11** Calculate percent test substance of theoretical as described in the Calculations section.

12.3 Suitable Container

12.3.1 Select the types/materials of centrifuge tubes to use in the study from the Supplies and Materials section of the method (up to 5).

12.3.2 Prepare 100 mL of each of the following solutions:

12.3.2.1 0.0 mg/L of test substance in 0.01 M $CaCl_2$ (i.e., Solution A).

12.3.2.2 ~0.05 mg/L of test substance in 0.01 M $CaCl_2$. (Dilute 100 uL of Solution B to 100 mL with Solution A in a Nalgene® volumetric flask.)

12.3.2.3 ~0.50 mg/L of test substance in 0.01 M $CaCl_2$. (Dilute 1000 uL of Solution B to 100 mL with Solution A in a Nalgene® volumetric flask.)

12.3.3 Prepare Time "0 hr" samples:

12.3.3.1 Dispense 1.00mL of each of the three solutions listed in section 12.3.2 directly into labeled autovials. Do this four times for each solution (triplicate samples and one matrix spike).

12.3.3.2 Spiking: Refer to section 12.6.

12.3.4 Prepare Time "24 hr" samples:

12.3.4.1 Aliquot 10mL of solution into each centrifuge tube, according to the following Study Sample grid (Table 2):

Table 2

		No. of tubes	No. of tubes	No. of tubes	No. of tubes	No. of tubes
Conc. Test Substance, mg/L	Solution	Cent. Tube, Type 1	Cent. Tube, Type 2	Cent. Tube, Type 3	Cent. Tube, Type 4	Cent. Tube, Type 5
0.0	12.3.2.1	3	3	3	3	3
~0.05	12.3.2.2	3	3	3	3	3
~0.50	12.3.2.3	3	3	3	3	3

12.3.4.2 Equilibrate the tubes for 24 hours at room temperature in an orbital shaker set to gently rotate. Record start and stop times on the appropriate data form.

12.3.4.3 Transfer 1.00mL of the study sample into a labeled autovial.

12.3.4.4 Spiking: Refer to section 12.6 for spiking.

12.3.4.5 Empty contents of the tubes. (Contents may be discarded.)

12.3.4.6 Add 2.0 mL of Methanol to the empty tube.

12.3.4.7 After recapping the tube, thoroughly rinse the sides and cap of the centrifuge tube.

12.3.4.8 Transfer 1.0 mL of the rinse solution from 12.3.4.6 to an autovial and cap tightly.

12.3.4.9 Spiking: Refer to section 12.6 for spiking.

12.3.5 Add THPFOS internal standard prior to analysis.

12.3.6 Analyze all autovials using appropriate methodology to determine concentration of test substance.

12.3.7 Calculate percent test substance of theoretical as described in the Calculations section.

12.3.8 Choose the most appropriate container based on minimal adsorption as well as convenience and cost.

12.4 Suitable Desorption Solvent

12.4.1 Two amounts (1 ug and 10 ug total) of test substance will be used, as well as a blank control.

12.4.2 Select a soil with high clay content from the list of soil types in section 8.1.4 for use in this study.

12.4.3 Use the centrifuge tubes determined from section 12.3 of this method.

12.4.4 Using the following Study Sample grid (Table 3), prepare the following (replicate) sample sets:

Table 3

Total µg of Test Substance	Matrix	µL of Stock Test Substance	Amount of Soil (grams)	# of Tubes with Soil	# of Tubes with No Soil
0.0	Soil only	0.0	2.50 ± 0.05	3	3
~1 µg	Soil only	20	2.50 ± 0.05	3	3
~10 µg	Soil only	200	2.50 ± 0.05	3	3

12.4.5 Weigh soil amounts as indicated and record weights on the appropriate data form.

12.4.6 Add the test substance onto the soil as indicated in Table 3.

12.4.7 Mix the soil contents thoroughly and then allow the tubes to sit for a minimum of 10 minutes to insure adsorption of the test substance onto the soil.

12.4.8 Add 2.5 mL of methanol to each tube and cap tightly.

12.4.9 Vortex for 1 minute. (Alternatively, place tubes horizontally on a shaker and mix for 10 minutes.)

12.4.10 Centrifuge the tubes and remove as much of the solvent layer as possible, without disturbing the solids layer.

12.4.11 Place the solvent layer into a second prelabeled centrifuge tube.

12.4.12 Repeat steps 12.4.8 through 12.4.12 twice more, adding the solvent portion to the same tube each time.

12.4.13 Withdraw 1.00mL of the study sample and dispense into a prelabeled autovial.

12.4.14 Spiking: Refer to section 12.6 for spiking.

12.4.15 Add THPFOS internal standard prior to analysis.

12.4.16 Analyze autovials using appropriate methodology to determine concentration of test substance.

12.4.17 Calculate percent test substance of theoretical as described in the Calculations section.

12.4.18 If the total test substance recovery from the soil is ≥80%, no further testing of solvent is necessary.

12.4.19 If the test substance recovery from the soil is <80%, investigate other solvents, using the same procedural steps.

12.5 Selection of Optimal Soil: Solution Ratios

12.5.1 Select two soils from the soils listed in section 8.1.4.

12.5.1.1 One soil type with high organic carbon and low clay content.

12.5.1.2 One soil type with low organic carbon and high clay content.

12.5.2 Using the centrifuge tube type determined for use from section 12.3, set up the following study sample grid (Table 4). Control blanks are set up for only two time points (0 hr and 48 hour). All other samples are set up for eight time points.

Table 4

Conc. Test Substance, mg/L	Soil: Solution Ratio	Soil (grams)	mL of 0.01 M $CaCl_2$ Solution	Number of Time Points	No. of Tubes with No Soil (Control Sample)	No. of Tubes with Soil Type 1	No. of Tubes with Soil Type 2	µL of 50 mg/L Stock Test Substance*
0.0	NA	0.00	25.0 ± 0.2	2	3 x 2 = 6	NA	NA	0.00
~0.5	NA	0.00	24.75 ± 0.2	8	3 x 8 = 24	NA	NA	250*
0.0	1:1	5.00 ±0.05	5.0 ±0.1	2	NA	3 x 2 =6	3 x 2 = 6	0.00
0.0	1:5	2.50 ±0.05	12.5 ±0.1	2	NA	3 x 2 = 6	3 x 2 = 6	0.00
0.0	1:25	1.00 ±0.05	25.0 ±0.2	2	NA	3 x 2 = 6	3 x 2 = 6	0.00
~0.5	1:1	5.00 ±0.05	5.0 ±0.1	8	NA	3 x 8 = 24	3 x 8 = 24	50*
~0.5	1:5	2.50 ±0.05	12.4 ±0.1	8	NA	3 x 8 = 24	3 x 8 = 24	125*
~0.5	1:25	1.00 ±0.05	24.75 ±0.2	8	NA	3 x 8 = 24	3 x 8 = 24	250*

*To be added in after the study samples have equilibrated for 12 hours.

12.5.3 Document the pH of the stock test substance solution, using pH paper. Record to ±0.5 pH units.

12.5.4 The study samples are equilibrated with the 0.01 M CaCl2 solution for a minimum of 12 hours by placing the tubes on an orbital shaker at 23 ± 3 °C using a gentle rotation. Record start and stop times/dates on appropriate data forms.

12.5.5 Remove the tubes after the 12 hours and add the Stock Test Substance Solution (Solution B) in the amounts as specified in Table 4 (grayed section).

12.5.6 **For Time "0 hr" study samples only**, gently mix and proceed directly to 12.5.10.

12.5.7 The rest of the study samples are then placed back on the orbital shaker 23 ± 3 °C using a gentle rotation. Record start times/dates on appropriate data forms.

12.5.8 Remove (replicate) sample sets at the following time points and record the date(s)/time(s) of removal.

2 hr	24 hr
4 hr	36 hr
8 hr	48 hr
16 hr	

12.5.9 **For the Time "48 hr" study samples only**, weigh the tube + Contents and record on the appropriate data forms.

12.5.10 Centrifuge until the aqueous layer appears clear.

12.5.11 Document the pH for one of each sample set per time point. Record to ±0.5 pH units.

12.5.12 Withdraw 1.00mL of the study sample and dispense into a prelabeled autovial.

12.5.13 Spiking: Refer to section 12.6 for spiking.

12.5.14 Continue to pull the (replicate) timed study sample sets at the designated time points and repeat steps 12.5.10 through 12.5.13, as appropriate.

12.5.15 **Continue with the procedure using the "Time 48 hr" set of tubes only.**

12.5.16 Remove as much of the aqueous layer as possible without removing any of the solids layer (discard the aqueous layer).

12.5.17 Weigh the tube + contents and record on the appropriate data form.

12.5.18 Methanol addition

- **12.5.18.1** Add 2.0 mL of methanol to tubes containing 3 or less grams of soils (this include all blank controls).
- **12.5.18.2** Add 3.0 mL of methanol to tubes containing more than 3 grams of soil.

12.5.19 Vortex for 1 minute. (Alternatively, place tubes horizontally on a shaker and mix for 10 minutes.)

12.5.20 Centrifuge the tubes and remove as much of the solvent layer as possible.

12.5.21 Place the solvent layer into a second prelabeled centrifuge tube.

12.5.22 Repeat steps 12.5.18 through 12.5.21 twice more, adding the solvent portion to the same tube each time.

12.5.23 After all three portions of methanol extract have been added to the centrifuge tube, centrifuge the solution until it is clear.

12.5.24 Transfer 1.00mL of the study sample solution into the same autovial.

12.5.25 Spiking: Refer to section 12.6 for spiking.

12.5.26 After all study samples have been pulled, prepped, and the internal standard added, analyze autovials using appropriate methodology to determine concentration of test substance.

12.5.27 Make appropriate calculations as defined in the Calculations section.

12.5.28 Determine the optimal soil:solution ratio based the following two factors:

- **12.5.28.1** Adsorption of the test substance should be between 20% and 80% onto the soil.
- **12.5.28.2** If possible, a soil: solution ratio that enables the use of 15-mL centrifuge tubes is highly preferred. (The weight of the soil can be adjusted down to a minimum of 1.0 ± 0.05 grams. The aqueous ratio would be adjusted accordingly.)

12.6 Spiking

12.6.1 Only one replicate per study sample set will be spiked with a known amount of the test substance.

12.6.2 Spiking will be done whenever any aliquoted study sample is generated.

12.6.3 Dilute samples to the appropriate level for analysis (if necessary) with methanol.

12.6.4 Add an appropriate amount of spiking solution to provide a spike concentration of approximately 200ppb (or as deemed appropriate).

13.0 DATA ANALYSIS AND CALCULATIONS

13.1 Data analysis and calculations should be done using the templates provided from OECD Guideline 106.

14.0 METHOD PERFORMANCE

There are no previously defined method performance criteria for this method. However, this method will generate statistical data that may be used as a guideline for monitoring performance for Method ETS-8-160.

14.1 Accuracy

14.1.1 Matrix Spikes (MS): One matrix spike per study sample set will be generated. The matrix spikes will be calculated by using the following equation:

$$\frac{\text{(MS conc. analytical - Sample conc. analytical)}}{\text{(MS Spike conc. theoretical)}} \times 100$$

14.2 Precision

14.2.1 Replicates: Triplicate study samples will be generated using this method. Relative Standard Deviations (RSD) will be calculated from the triplicate samples. In the cases, where there are only two replicates, the Relative Percent Difference (RPD) will be calculated.

15.0 POLLUTION PREVENTION AND WASTE MANAGEMENT

15.1 Dispose of sample waste by placing in high or low BTU containers as appropriate.

15.2 Use broken glass containers to dispose of any empty glass containers, pipettes, etc.

16.0 RECORDS

16.1 Laboratory data forms will be generated and filled out during the course of this study. These data forms will be archived according to standard laboratory protocols.

17.0 ATTACHMENTS

17.1 Example data forms:

17.1.1 Suitable Analytical Method Data Form

17.1.2 Suitable Container Data Form

17.1.3 Suitable Desorption Solvent Data Form

17.1.4 Soil: Aqueous Optimal Ratio Data Form

18.0 REFERENCES

18.1 Organization of Economic Cooperation and Development, OECD Guideline for the Testing of chemicals. "Adsorption-Desorption Using a Batch Equilibrium Method: OECD Guideline 106 Adopted 21 January 2000.

18.2 EPA Fate, Transport and Transformation Test Guidelines: OPPTS 835.1220 Sediment and Soil Adsorption/Desorption Isotherm, EPA 712-C-98-048, January 1998.

19.0 AFFECTED DOCUMENTS

19.1 ETS-8-160.0 Preparation of Soil Samples for Screening (Tier II) and Advanced (Tier III) Sorption Studies for Fluorochemicals as the Test Substance (Based on OECD Guideline 106).

20.0 REVISIONS

Revision Number.	Reason For Revision	Revision Date

Sample ID	Soil Type (High Clay/High %CC)	Soil weight, grams (20 g)	100 mL CaCl2 solution	Equilibrate 4 hours (Yes/No)	Centrifuge (Yes/No)	Comments
1	2	3	4	5	6	7
E00-xxxx-0001						
E00-xxxx-0002						
E00-xxxx-0003						

Col. 2 Soil ID #: _____

Col. 3 Balance ID _____

T/D/I _____ _____/_____/_____

Col. 4 0.01 M CaCl2 Soln ID #: _____

T/D/I _____ _____/_____/_____

Col. 5 Inc. ID _____

Start T/D/I _____ _____/_____/_____

Stop T/D/I _____ _____/_____/_____

Col. 6 T/D/I _____ _____/_____/_____

Sample ID	Original Matrix Solution	Conc. of Test Substance	100 uL of Stock Test Substance Added	Matrix Solution Added (10 mL to Volume)	1.00mL of Study Sample	Comments
1	2	3	4	5	6	7
E00-xxxx-0004	E00-xxxx-0001	0.0	---			
E00-xxxx-0005	E00-xxxx-0002	0.0	---			
E00-xxxx-0006	E00-xxxx-0003	0.0	---			
E00-xxxx-0007	E00-xxxx-0001	1				
E00-xxxx-0008	E00-xxxx-0001	1				
E00-xxxx-0009	E00-xxxx-0001	1				
E00-xxxx-0010	E00-xxxx-0002	1				
E00-xxxx-0011	E00-xxxx-0002	1				
E00-xxxx-0012	E00-xxxx-0002	1				
E00-xxxx-0013	E00-xxxx-0003	1				
E00-xxxx-0014	E00-xxxx-0003	1				
E00-xxxx-0015	E00-xxxx-0003	1				

Col. 4 Test Substance = _____ ID #: _____

T/D/I _____ _____/_____/_____

Col. 5 Matrix Solution ID #: _____

T/D/I _____ _____/_____/_____

Col. 6 T/D/I _____ _____/_____/_____

Internal Standard ID Number _____

T/D/I _____ _____/_____/_____

GLP Study Number:

Suitable Analytical ETS-8-159 Section 12.2 Test Substance:

Sample ID	Soil Type	Soil weight, grams (20 g)	100 mL CaCl2 solution	Equilibrate 4 hours (Yes/No)	Centrifuge (Yes/No)	Comments
1	2	3	4	5	6	7
E00-xxxx-0016						
E00-xxxx-0017						
E00-xxxx-0018						

Col. 2 Soil ID #: _____

Col. 3 Balance ID _____

T/D/I _____ _____/_____/ _____

Col. 4 0.01 M CaCl2 Soln ID #: _____

T/D/I _____ _____/_____/ _____

Col. 5 Inc. ID _____

Start T/D/I _____ _____/_____/ _____

Stop T/D/I _____ _____/_____/ _____

Col. 6 T/D/I _____ _____/_____/ _____

Sample ID	Original Matrix Solution	conc. of Test Substance	100 uL of Stock Test Substance Added	Matrix Solution Added (10 mL to Volume)	1.00 mL of Study Sample	Comments
1	2	3	4	5	6	7
E00-xxxx-0019	E00-xxxx-0001	0.0				
E00-xxxx-0020	E00-xxxx-0002	0.0				
E00-xxxx-0021	E00-xxxx-0003	0.0				
E00-xxxx-0022	E00-xxxx-0001	1				
E00-xxxx-0023	E00-xxxx-0001	1				
E00-xxxx-0024	E00-xxxx-0001	1				
E00-xxxx-0025	E00-xxxx-0002	1				
E00-xxxx-0026	E00-xxxx-0002	1				
E00-xxxx-0027	E00-xxxx-0002	1				
E00-xxxx-0028	E00-xxxx-0003	1				
E00-xxxx-0029	E00-xxxx-0003	1				
E00-xxxx-0030	E00-xxxx-0003	1				

Col. 4 Test Substance = _____ ID #: _____

T/D/I _____ _____/_____/ _____

Col. 5 Matrix Solution ID #: _____

T/D/I _____ _____/_____/ _____

Col. 6 T/D/I _____ _____/_____/ _____

Internal Standard ID Number _____

T/D/I _____ _____/_____/ _____

GLP Study Number:

Suitable Container

ETS-8-159 Section 12.3

Test Substance:

Col 3
CT-1 _____ CT-4 _____
CT-2 _____ CT-5 _____
CT-3 _____

Col 7 T/D/I ____/____/____
(a) 0.0 mg/L Test Subs. Soln ID _____
(b) 0.1 mg/L Test Subs. Soln ID _____
(f) 1 mg/L Test Subs. Soln ID _____

Col 8 Inc. ID _____
Start T/D/I ____/____/____
Stop T/D/I ____/____/____

Col 9
T/D/I ____/____/____

Col 10
Spike Soln ID _____
T/D/I ____/____/____

Col 12
MeOH Dil Soln ID _____
T/D/I ____/____/____

Col 13
T/D/I ____/____/____

Col 14
Spike Soln ID _____

Internal Standard ID _____
T/D/I ____/____/____

Sample ID	Spike	Centrifuge Type	Time (0 hr or 24)	Concentration, mg/L	S1 (Adsorb)	10.0 mL of Test Subst. Soln.	Equilibrate 24 hours	1.00 mL sample	Spike Soln Addition, uL	S2 (Desorb)	2.0 mL Methanol	Remove 1.00 mL	Spike Soln Addition	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
E00-xxxx-1001	—	NA	0 hr	0.0	S1	—	—		—	—	—	—	—	
E00-xxxx-1002	—	NA	0 hr	0.0	S1	—	—		—	—	—	—	—	
E00-xxxx-1003	—	NA	0 hr	0.0	S1	—	—		—	—	—	—	—	
E00-xxxx-1004	—	NA	0 hr	0.05	S1	—	—		—	—	—	—	—	
E00-xxxx-1005	—	NA	0 hr	0.05	S1	—	—		—	—	—	—	—	
E00-xxxx-1006	—	NA	0 hr	0.05	S1	—	—		—	—	—	—	—	
E00-xxxx-1007	—	NA	0 hr	0.5	S1	—	—		—	—	—	—	—	
E00-xxxx-1008	—	NA	0 hr	0.5	S1	—	—		—	—	—	—	—	
E00-xxxx-1009	—	NA	0 hr	0.5	S1	—	—		—	—	—	—	—	
E00-xxxx-1010	—	CT-1	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1011	—	CT-1	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1012	—	CT-1	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1012	MS	CT-1	24 hr	0.0	S1					S2				
E00-xxxx-1013	—	CT-1	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1014	—	CT-1	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1015	—	CT-1	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1015	MS	CT-1	24 hr	0.05	S1					S2				
E00-xxxx-1016	—	CT-1	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1017	—	CT-1	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1018	—	CT-1	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1019	MS	CT-1	24 hr	0.5	S1					S2				
E00-xxxx-1019	—	CT-2	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1020	—	CT-2	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1021	—	CT-2	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1021	MS	CT-2	24 hr	0.0	S1					S2				
E00-xxxx-1022	—	CT-2	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1023	—	CT-2	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1024	—	CT-2	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1024	MS	CT-2	24 hr	0.05	S1					S2				
E00-xxxx-1025	—	CT-2	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1026	—	CT-2	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1027	—	CT-2	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1027	MS	CT-2	24 hr	0.5	S1					S2				
E00-xxxx-1028	—	CT-3	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1029	—	CT-3	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1030	—	CT-3	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1030	MS	CT-3	24 hr	0.0	S1					S2				
E00-xxxx-1031	—	CT-3	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1032	—	CT-3	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1033	—	CT-3	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1033	MS	CT-3	24 hr	0.05	S1					S2				
E00-xxxx-1034	—	CT-3	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1035	—	CT-3	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1036	—	CT-3	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1036	MS	CT-3	24 hr	0.5	S1					S2				
E00-xxxx-1037	—	CT-4	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1038	—	CT-4	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1039	—	CT-4	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1039	MS	CT-4	24 hr	0.0	S1					S2				
E00-xxxx-1040	—	CT-4	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1041	—	CT-4	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1042	—	CT-4	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1042	MS	CT-4	24 hr	0.05	S1					S2				
E00-xxxx-1043	—	CT-4	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1044	—	CT-4	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1045	—	CT-4	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1045	MS	CT-4	24 hr	0.5	S1					S2				
E00-xxxx-1046	—	CT-5	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1047	—	CT-5	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1048	—	CT-5	24 hr	0.0	S1				—	S2			—	
E00-xxxx-1048	MS	CT-5	24 hr	0.0	S1					S2				
E00-xxxx-1049	—	CT-5	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1050	—	CT-5	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1051	—	CT-5	24 hr	0.05	S1				—	S2			—	
E00-xxxx-1051	MS	CT-5	24 hr	0.05	S1					S2				
E00-xxxx-1052	—	CT-5	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1053	—	CT-5	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1054	—	CT-5	24 hr	0.5	S1				—	S2			—	
E00-xxxx-1054	MS	CT-5	24 hr	0.5	S1					S2				

GLP Study Number:

Desorption Solvent | ETS-8-159 Section 12.4 | Test Substance

Col 4 Soil ID 1 _____
Soil ID 2 _____
Col 6 Balance ID _____
T/D/I _____/____/____
Col 7 Test Subst. Soln ID # _____
T/D/I _____/____/____
Col 8 MeOH ID # _____
T/D/I _____/____/____

Col 9
T/D/I _____/____/____
Col 10 MeOH ID # _____
T/D/I _____/____/____
Col 11
T/D/I _____/____/____
Col 12 MeOH ID # _____
T/D/I _____/____/____

Col 13
T/D/I _____/____/____
Col 15 Study Sample
T/D/I _____/____/____
Col 16 Spike soln ID # _____
Time/Date/Initials _____/__/___
Internal Standard ID # _____
Time/Date/Initials _____/__/___

Sample ID	MS	Type of Sample	Type of Soil (High Clay Content or sludge)	Test Substance, ug	Soil Weight, grams	Test Substance Add'n, uL	Add methanol, record volume added in mLs	Centrifuge & Transfer	Add methanol, record volume added in mLs	Centrifuge & Transfer	Add methanol, record volume added in mLs	Centrifuge & Transfer	1.00 mL of Study Sample	Spike Amount	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
E00-xxxx-2001	---	Cntrl	NA	0	---	---									
E00-xxxx-2002	---	Cntrl	NA	0	---	---									
E00-xxxx-2003	---	Cntrl	NA	0	---	---									
E00-xxxx-2003	MS	Cntrl	NA	0	---	---									
E00-xxxx-2004	---	Cntrl	NA	1	---										
E00-xxxx-2005	---	Cntrl	NA	1	---										
E00-xxxx-2006	---	Cntrl	NA	1	---										
E00-xxxx-2006	MS	Cntrl	NA	1	---										
E00-xxxx-2007	---	Cntrl	NA	10	---										
E00-xxxx-2008	---	Cntrl	NA	10	---										
E00-xxxx-2009	---	Cntrl	NA	10	---										
E00-xxxx-2009	MS	Cntrl	NA	10	---										
E00-xxxx-2010	---	Smpl	S1	0		---									
E00-xxxx-2011	---	Smpl	S1	0		---									
E00-xxxx-2012	---	Smpl	S1	0		---									
E00-xxxx-2012	MS	Smpl	S1	0		---									
E00-xxxx-2013	---	Smpl	S1	1											
E00-xxxx-2014	---	Smpl	S1	1											
E00-xxxx-2015	---	Smpl	S1	1											
E00-xxxx-2015	MS	Smpl	S1	1											
E00-xxxx-2016	---	Smpl	S1	10											
E00-xxxx-2017	---	Smpl	S1	10											
E00-xxxx-2018	---	Smpl	S1	10											
E00-xxxx-2018	MS	Smpl	S1	10											
E00-xxxx-2019	---	Smpl	S2	0		---									
E00-xxxx-2020	---	Smpl	S2	0		---									
E00-xxxx-2021	---	Smpl	S2	0		---									
E00-xxxx-2021	MS	Smpl	S2	0		---									
E00-xxxx-2022	---	Smpl	S2	1											
E00-xxxx-2023	---	Smpl	S2	1											
E00-xxxx-2024	---	Smpl	S2	1											
E00-xxxx-2024	MS	Smpl	S2	1											
E00-xxxx-2025	---	Smpl	S2	10											
E00-xxxx-2026	---	Smpl	S2	10											
E00-xxxx-2027	---	Smpl	S2	10											
E00-xxxx-2027	MS	Smpl	S2	10											

GLP Study Number:

Optimal Ratio

ETS-8-159 Section 12.5

Test Substance

Sample ID	Status	Soil Type	Test Subs. conc., mg/L	Soil:Soln Ratio	HR	Sampling	Soil Weight (grams)	0.01 M CaCl2 Addition	Equilibrate 12 hours	Test Substance Addition	Equilibrate for x hours	Centrifuge (Y/N)	pH	Weigh tube+contents,g (48 hr)	Remove 1.00 mL Study Sample	Add Spike Soln (uL)	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E00-xxxx-3001		--	0.0	NA1	0	S1											
E00-xxxx-3002		--	0.0	NA1	0	S1											
E00-xxxx-3003		--	0.0	NA1	0	S1											
E00-xxxx-3003	MS	--	0.0	NA1	0	S1											
E00-xxxx-3004		--	0.5	NA1	0	S1											
E00-xxxx-3005		--	0.5	NA1	0	S1											
E00-xxxx-3006		--	0.5	NA1	0	S1											
E00-xxxx-3006	MS	--	0.5	NA1	0	S1											
E00-xxxx-3007		--	0.0	NA1	48	S1											
E00-xxxx-3008		--	0.0	NA1	48	S1											
E00-xxxx-3009		--	0.0	NA1	48	S1											
E00-xxxx-3009	MS	--	0.0	NA1	48	S1											
E00-xxxx-3010		--	0.5	NA1	48	S1											
E00-xxxx-3011		--	0.5	NA1	48	S1											
E00-xxxx-3012		--	0.5	NA1	48	S1											
E00-xxxx-3012	MS	--	0.5	NA1	48	S1											
E00-xxxx-3013		HC/LO	0.0	1:1	0	S1											
E00-xxxx-3014		HC/LO	0.0	1:1	0	S1											
E00-xxxx-3015		HC/LO	0.0	1:1	0	S1											
E00-xxxx-3015	MS	HC/LO	0.0	1:1	0	S1											
E00-xxxx-3016		HC/LO	0.0	1:5	0	S1											
E00-xxxx-3017		HC/LO	0.0	1:5	0	S1											
E00-xxxx-3018		HC/LO	0.0	1:5	0	S1											
E00-xxxx-3018	MS	HC/LO	0.0	1:5	0	S1											
E00-xxxx-3019		HC/LO	0.0	1:25	0	S1											
E00-xxxx-3020		HC/LO	0.0	1:25	0	S1											
E00-xxxx-3021		HC/LO	0.0	1:25	0	S1											
E00-xxxx-3021	MS	HC/LO	0.0	1:25	0	S1											
E00-xxxx-3022		HC/LO	0.0	1:1	48	S1											
E00-xxxx-3023		HC/LO	0.0	1:1	48	S1											
E00-xxxx-3024		HC/LO	0.0	1:1	48	S1											
E00-xxxx-3024	MS	HC/LO	0.0	1:1	48	S1											
E00-xxxx-3025		HC/LO	0.0	1:5	48	S1											
E00-xxxx-3026		HC/LO	0.0	1:5	48	S1											
E00-xxxx-3027		HC/LO	0.0	1:5	48	S1											
E00-xxxx-3027	MS	HC/LO	0.0	1:5	48	S1											
E00-xxxx-3028		HC/LO	0.0	1:25	48	S1											
E00-xxxx-3029		HC/LO	0.0	1:25	48	S1											
E00-xxxx-3030		HC/LO	0.0	1:25	48	S1											
E00-xxxx-3030	MS	HC/LO	0.0	1:25	48	S1											

Soil Type 1 (HC/LO) _____
Soil Type 2 (LC/HO) _____

Col 8 Balance ID _____
T/D/I _____ ____/____/ ____
Col 9 CaCl2 Soln ID _____
T/D/I _____ ____/____/ ____

Col 10 (48 hr) Inc. ID _____
Start T/D/I _____ ____/____/ ____
Stop T/D/I _____ ____/____/ ____

Col 11 Test Subst. ID _____
T/D/I _____ ____/____/ ____
Col 12 Inc. ID _____
Start T/D/I _____ ____/____/ ____
Stop T/D/I _____ ____/____/ ____

Col 13 T/D/I _____ ____/____/ ____
Col 14 T/D/I _____ ____/____/ ____
Col 15 Balance ID _____
T/D/I _____ ____/____/ ____
Col 16 T/D/I _____ ____/____/ ____
Col 17 Spike Soln ID _____
T/D/I _____ ____/____/ ____
Internal Standard ID _____
T/D/I _____ ____/____/ ____

GLP Study Number:

Optimal Ratio ETS-8-159 Section 12.5 Test Substance

Sample ID	Spike	Soil Type	Test Subs. conc., mg/L	Soil:Soln Ratio	HR	Sampling	Soil Weight (grams)	0.01 M CaCl2 Addition	Equilibrate 12 hours	Test Substance Addition	Equilibrate for x hours	centrifuge (Y/N)	pH	Weigh tube+contents,g (48 hr)	Remove 1.00 mL Study Sample	Add Spike Soln (uL)	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E00-xxxx-3031		HC/LO	0.5	1:1	0	S1											
E00-xxxx-3032		HC/LO	0.5	1:1	0	S1											
E00-xxxx-3033		HC/LO	0.5	1:1	0	S1											
E00-xxxx-3033	MS	HC/LO	0.5	1:1	0	S1											
E00-xxxx-3034		HC/LO	0.5	1:5	0	S1											
E00-xxxx-3035		HC/LO	0.5	1:5	0	S1											
E00-xxxx-3036		HC/LO	0.5	1:5	0	S1											
E00-xxxx-3036	MS	HC/LO	0.5	1:5	0	S1											
E00-xxxx-3037		HC/LO	0.5	1:25	0	S1											
E00-xxxx-3038		HC/LO	0.5	1:25	0	S1											
E00-xxxx-3039		HC/LO	0.5	1:25	0	S1											
E00-xxxx-3039	MS	HC/LO	0.5	1:25	0	S1											
E00-xxxx-3040		HC/LO	0.5	1:1	2	S1											
E00-xxxx-3041		HC/LO	0.5	1:1	2	S1											
E00-xxxx-3042		HC/LO	0.5	1:1	2	S1											
E00-xxxx-3042	MS	HC/LO	0.5	1:1	2	S1											
E00-xxxx-3043		HC/LO	0.5	1:5	2	S1											
E00-xxxx-3044		HC/LO	0.5	1:5	2	S1											
E00-xxxx-3045		HC/LO	0.5	1:5	2	S1											
E00-xxxx-3045	MS	HC/LO	0.5	1:5	2	S1											
E00-xxxx-3046		HC/LO	0.5	1:25	2	S1											
E00-xxxx-3047		HC/LO	0.5	1:25	2	S1											
E00-xxxx-3048		HC/LO	0.5	1:25	2	S1											
E00-xxxx-3048	MS	HC/LO	0.5	1:25	2	S1											
E00-xxxx-3049		HC/LO	0.5	1:1	4	S1											
E00-xxxx-3050		HC/LO	0.5	1:1	4	S1											
E00-xxxx-3051		HC/LO	0.5	1:1	4	S1											
E00-xxxx-3051	MS	HC/LO	0.5	1:1	4	S1											
E00-xxxx-3052		HC/LO	0.5	1:5	4	S1											
E00-xxxx-3053		HC/LO	0.5	1:5	4	S1											
E00-xxxx-3054		HC/LO	0.5	1:5	4	S1											
E00-xxxx-3054	MS	HC/LO	0.5	1:5	4	S1											
E00-xxxx-3055		HC/LO	0.5	1:25	4	S1											
E00-xxxx-3056		HC/LO	0.5	1:25	4	S1											
E00-xxxx-3057		HC/LO	0.5	1:25	4	S1											
E00-xxxx-3057	MS	HC/LO	0.5	1:25	4	S1											
E00-xxxx-3058		HC/LO	0.5	1:1	8	S1											
E00-xxxx-3059		HC/LO	0.5	1:1	8	S1											
E00-xxxx-3060		HC/LO	0.5	1:1	8	S1											
E00-xxxx-3060	MS	HC/LO	0.5	1:1	8	S1											
E00-xxxx-3061		HC/LO	0.5	1:5	8	S1											
E00-xxxx-3062		HC/LO	0.5	1:5	8	S1											
E00-xxxx-3063		HC/LO	0.5	1:5	8	S1											
E00-xxxx-3063	MS	HC/LO	0.5	1:5	8	S1											
E00-xxxx-3064		HC/LO	0.5	1:25	8	S1											
E00-xxxx-3065		HC/LO	0.5	1:25	8	S1											
E00-xxxx-3066		HC/LO	0.5	1:25	8	S1											
E00-xxxx-3066	MS	HC/LO	0.5	1:25	8	S1											

Soil Type 1 (HC/LO) _____
Soil Type 2 (LC/HO) _____

Col 8 Balance ID _____
T/D/I _____ ___/___/ ___
Col 9 CaCl2 Soln ID _____
T/D/I _____ ___/___/ ___

Col 10 (2 hr) Inc. ID _____
Start T/D/I _____ ___/___/ ___
Stop T/D/I _____ ___/___/ ___
Col 10 (4 hr) Inc. ID _____
Start T/D/I _____ ___/___/ ___
Stop T/D/I _____ ___/___/ ___
Col 10 (8 hr) Inc. ID _____
Start T/D/I _____ ___/___/ ___
Stop T/D/I _____ ___/___/ ___

Col 11 Test Subst. ID _____
T/D/I _____ ___/___/ ___
Col 12 Inc. ID _____
Start T/D/I _____ ___/___/ ___
Stop T/D/I _____ ___/___/ ___
Col 13 T/D/I _____ ___/___/ ___
Col 14 T/D/I _____ ___/___/ ___
Col 15 Balance ID _____
T/D/I _____ ___/___/ ___
Col 16 T/D/I _____ ___/___/ ___
Col 17 Spike Soln ID _____
T/D/I _____ ___/___/ ___
Internal Standard ID _____
T/D/I _____ ___/___/ ___

GLP Study Number:

Optimal Ratio ETS-8-159 Section 12.5 Test Substance

Sample ID	Spike	Soil Type	Test Subs. conc., mg/L	Soil:Soln Ratio	HR	Sampling	Soil Weight (grams)	0.01 M CaCl2 Addition	Equilibrate 12 hours	Test Substance Addition	Equilibrate for x hours	centrifuge (Y/N)	pH	Weigh tube+contents,g (48 hr)	Remove 1.00 mL Study Sample	Add Spike Soln (uL)	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E00-xxxx-3067		HC/LO	0.5	1:1	16	S1											
E00-xxxx-3068		HC/LO	0.5	1:1	16	S1											
E00-xxxx-3069		HC/LO	0.5	1:1	16	S1											
E00-xxxx-3069	MS	HC/LO	0.5	1:1	16	S1											
E00-xxxx-3070		HC/LO	0.5	1:5	16	S1											
E00-xxxx-3071		HC/LO	0.5	1:5	16	S1											
E00-xxxx-3072		HC/LO	0.5	1:5	16	S1											
E00-xxxx-3072	MS	HC/LO	0.5	1:5	16	S1											
E00-xxxx-3073		HC/LO	0.5	1:25	16	S1											
E00-xxxx-3074		HC/LO	0.5	1:25	16	S1											
E00-xxxx-3075		HC/LO	0.5	1:25	16	S1											
E00-xxxx-3075	MS	HC/LO	0.5	1:25	16	S1											
E00-xxxx-3076		HC/LO	0.5	1:1	24	S1											
E00-xxxx-3077		HC/LO	0.5	1:1	24	S1											
E00-xxxx-3078		HC/LO	0.5	1:1	24	S1											
E00-xxxx-3078	MS	HC/LO	0.5	1:1	24	S1											
E00-xxxx-3079		HC/LO	0.5	1:5	24	S1											
E00-xxxx-3080		HC/LO	0.5	1:5	24	S1											
E00-xxxx-3081		HC/LO	0.5	1:5	24	S1											
E00-xxxx-3081	MS	HC/LO	0.5	1:5	24	S1											
E00-xxxx-3082		HC/LO	0.5	1:25	24	S1											
E00-xxxx-3083		HC/LO	0.5	1:25	24	S1											
E00-xxxx-3084		HC/LO	0.5	1:25	24	S1											
E00-xxxx-3084	MS	HC/LO	0.5	1:25	24	S1											
E00-xxxx-3085		HC/LO	0.5	1:1	36	S1											
E00-xxxx-3086		HC/LO	0.5	1:1	36	S1											
E00-xxxx-3087		HC/LO	0.5	1:1	36	S1											
E00-xxxx-3087	MS	HC/LO	0.5	1:1	36	S1											
E00-xxxx-3088		HC/LO	0.5	1:5	36	S1											
E00-xxxx-3089		HC/LO	0.5	1:5	36	S1											
E00-xxxx-3090		HC/LO	0.5	1:5	36	S1											
E00-xxxx-3090	MS	HC/LO	0.5	1:5	36	S1											
E00-xxxx-3091		HC/LO	0.5	1:25	36	S1											
E00-xxxx-3092		HC/LO	0.5	1:25	36	S1											
E00-xxxx-3093		HC/LO	0.5	1:25	36	S1											
E00-xxxx-3093	MS	HC/LO	0.5	1:25	36	S1											
E00-xxxx-3094		HC/LO	0.5	1:1	48	S1											
E00-xxxx-3095		HC/LO	0.5	1:1	48	S1											
E00-xxxx-3096		HC/LO	0.5	1:1	48	S1											
E00-xxxx-3096	MS	HC/LO	0.5	1:1	48	S1											
E00-xxxx-3097		HC/LO	0.5	1:5	48	S1											
E00-xxxx-3098		HC/LO	0.5	1:5	48	S1											
E00-xxxx-3099		HC/LO	0.5	1:5	48	S1											
E00-xxxx-3099	MS	HC/LO	0.5	1:5	48	S1											
E00-xxxx-3100		HC/LO	0.5	1:25	48	S1											
E00-xxxx-3101		HC/LO	0.5	1:25	48	S1											
E00-xxxx-3102		HC/LO	0.5	1:25	48	S1											
E00-xxxx-3102	MS	HC/LO	0.5	1:25	48	S1											

Soil Type 1 (HC/LO) _____
Soil Type 2 (LC/HO) _____

Col 8 Balance ID _____
T/D/I _____ ___/___/ ___
Col 9 CaCl2 Soln ID _____
T/D/I _____ ___/___/ ___

Col 10 (16 hr) Inc. ID _____
Start T/D/I _____ ___/___/ ___
Stop T/D/I _____ ___/___/ ___
Col 10 (24 hr) Inc. ID _____
Start T/D/I _____ ___/___/ ___
Stop T/D/I _____ ___/___/ ___
Col 10 (36 hr) Inc. ID _____
Start T/D/I _____ ___/___/ ___
Stop T/D/I _____ ___/___/ ___
Col 10 (48 hr) Inc. ID _____
Start T/D/I _____ ___/___/ ___
Stop T/D/I _____ ___/___/ ___

Col 11 Test Subst. ID _____
T/D/I _____ ___/___/ ___
Col 12 Inc. ID _____
Start T/D/I _____ ___/___/ ___
Stop T/D/I _____ ___/___/ ___
Col 13 T/D/I _____ ___/___/ ___
Col 14 T/D/I _____ ___/___/ ___
Col 16 MeOH Dilm Soln ID _____
T/D/I _____ ___/___/ ___
Col 15 Balance ID _____
T/D/I _____ ___/___/ ___
Col 17 T/D/I _____ ___/___/ ___
Col 18 Spike Soln ID _____
T/D/I _____ ___/___/ ___

GLP Study Number:

Optimal Ratio ETS-8-159 Section 12.5 Test Substance

Sample ID	Spike	Soil Type	Test Subst. conc., mg/L	Soil:Soln Ratio	HR	Sample	Soil Weight (grams)	0.01 M CaCl2 Addition	Equilibrate 12 hours	Test Substance Addition	Equilibrate for x hours	Centrifuge (Y/N)	pH	Weigh tube+contents,g (48 hr)	Remove 1.00 mL Study Sample	Add Spike Soln (uL)	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E00-xxxx-3103		LC/HO	0.5	1:1	0	S1											
E00-xxxx-3104		LC/HO	0.5	1:1	0	S1											
E00-xxxx-3105		LC/HO	0.5	1:1	0	S1											
E00-xxxx-3105	MS	LC/HO	0.5	1:1	0	S1											
E00-xxxx-3106		LC/HO	0.5	1:5	0	S1											
E00-xxxx-3107		LC/HO	0.5	1:5	0	S1											
E00-xxxx-3108		LC/HO	0.5	1:5	0	S1											
E00-xxxx-3108	MS	LC/HO	0.5	1:5	0	S1											
E00-xxxx-3109		LC/HO	0.5	1:25	0	S1											
E00-xxxx-3110		LC/HO	0.5	1:25	0	S1											
E00-xxxx-3111		LC/HO	0.5	1:25	0	S1											
E00-xxxx-3111	MS	LC/HO	0.5	1:25	0	S1											
E00-xxxx-3112		LC/HO	0.5	1:1	2	S1											
E00-xxxx-3113		LC/HO	0.5	1:1	2	S1											
E00-xxxx-3114		LC/HO	0.5	1:1	2	S1											
E00-xxxx-3114	MS	LC/HO	0.5	1:1	2	S1											
E00-xxxx-3115		LC/HO	0.5	1:5	2	S1											
E00-xxxx-3116		LC/HO	0.5	1:5	2	S1											
E00-xxxx-3117		LC/HO	0.5	1:5	2	S1											
E00-xxxx-3117	MS	LC/HO	0.5	1:5	2	S1											
E00-xxxx-3118		LC/HO	0.5	1:25	2	S1											
E00-xxxx-3119		LC/HO	0.5	1:25	2	S1											
E00-xxxx-3120		LC/HO	0.5	1:25	2	S1											
E00-xxxx-3120	MS	LC/HO	0.5	1:25	2	S1											
E00-xxxx-3121		LC/HO	0.5	1:1	4	S1											
E00-xxxx-3122		LC/HO	0.5	1:1	4	S1											
E00-xxxx-3123		LC/HO	0.5	1:1	4	S1											
E00-xxxx-3123	MS	LC/HO	0.5	1:1	4	S1											
E00-xxxx-3124		LC/HO	0.5	1:5	4	S1											
E00-xxxx-3125		LC/HO	0.5	1:5	4	S1											
E00-xxxx-3126		LC/HO	0.5	1:5	4	S1											
E00-xxxx-3126	MS	LC/HO	0.5	1:5	4	S1											
E00-xxxx-3127		LC/HO	0.5	1:25	4	S1											
E00-xxxx-3128		LC/HO	0.5	1:25	4	S1											
E00-xxxx-3129		LC/HO	0.5	1:25	4	S1											
E00-xxxx-3129	MS	LC/HO	0.5	1:25	4	S1											
E00-xxxx-3130		LC/HO	0.5	1:1	8	S1											
E00-xxxx-3131		LC/HO	0.5	1:1	8	S1											
E00-xxxx-3132		LC/HO	0.5	1:1	8	S1											
E00-xxxx-3132	MS	LC/HO	0.5	1:1	8	S1											
E00-xxxx-3133		LC/HO	0.5	1:5	8	S1											
E00-xxxx-3134		LC/HO	0.5	1:5	8	S1											
E00-xxxx-3135		LC/HO	0.5	1:5	8	S1											
E00-xxxx-3135	MS	LC/HO	0.5	1:5	8	S1											
E00-xxxx-3136		LC/HO	0.5	1:25	8	S1											
E00-xxxx-3137		LC/HO	0.5	1:25	8	S1											
E00-xxxx-3138		LC/HO	0.5	1:25	8	S1											
E00-xxxx-3138	MS	LC/HO	0.5	1:25	8	S1											

Soil Type 1 (HC/LO) _____
Soil Type 2 (LC/HO) _____

Col 8 Balance ID _____
T/D/I _____ ___/___/ ____
Col 9 CaCl2 Soln ID _____
T/D/I _____ ___/___/ ____

Col 10 (2 hr) Inc. ID _____
Start T/D/I _____ ___/___/ ____
Stop T/D/I _____ ___/___/ ____
Col 10 (4 hr) Inc. ID _____
Start T/D/I _____ ___/___/ ____
Stop T/D/I _____ ___/___/ ____
Col 10 (8 hr) Inc. ID _____
Start T/D/I _____ ___/___/ ____
Stop T/D/I _____ ___/___/ ____

Col 11 Test Subst. ID _____
T/D/I _____ ___/___/ ____
Col 12 Inc. ID _____
Start T/D/I _____ ___/___/ ____
Stop T/D/I _____ ___/___/ ____
Col 13 T/D/I _____ ___/___/ ____
Col 14 T/D/I _____ ___/___/ ____
Col 16 MeOH Diln Soln ID _____
T/D/I _____ ___/___/ ____
Col 15 Balance ID _____
T/D/I _____ ___/___/ ____
Col 17 T/D/I _____ ___/___/ ____
Col 18 Spike Soln ID _____
T/D/I _____ ___/___/ ____

GLP Study Number:

Optimal Ratio

ETS-8-159 Section 12.5

Test Substance

Sample ID	Status	Soil Type	Test Subs. conc., mg/L	Soil:Soln Ratio	HR	Sampling	Soil Weight (grams)	0.01 M CaCl2 Addition	Equilibrate 12 hours	Test Substance Addition	Equilibrate for x hours	Centrifuge (Y/N)	pH	Weigh tube+contents,g (48 hr)	Remove 1.00 mL Study Sample	Add Spike Soln (uL)	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E00-xxxx-3139		LC/HO	0.5	1:1	16	S1											
E00-xxxx-3140		LC/HO	0.5	1:1	16	S1											
E00-xxxx-3141		LC/HO	0.5	1:1	16	S1											
E00-xxxx-3141	MS	LC/HO	0.5	1:1	16	S1											
E00-xxxx-3142		LC/HO	0.5	1:5	16	S1											
E00-xxxx-3143		LC/HO	0.5	1:5	16	S1											
E00-xxxx-3144		LC/HO	0.5	1:5	16	S1											
E00-xxxx-3144	MS	LC/HO	0.5	1:5	16	S1											
E00-xxxx-3145		LC/HO	0.5	1:25	16	S1											
E00-xxxx-3146		LC/HO	0.5	1:25	16	S1											
E00-xxxx-3147		LC/HO	0.5	1:25	16	S1											
E00-xxxx-3147	MS	LC/HO	0.5	1:25	16	S1											
E00-xxxx-3148		LC/HO	0.5	1:1	24	S1											
E00-xxxx-3149		LC/HO	0.5	1:1	24	S1											
E00-xxxx-3150		LC/HO	0.5	1:1	24	S1											
E00-xxxx-3150	MS	LC/HO	0.5	1:1	24	S1											
E00-xxxx-3151		LC/HO	0.5	1:5	24	S1											
E00-xxxx-3152		LC/HO	0.5	1:5	24	S1											
E00-xxxx-3153		LC/HO	0.5	1:5	24	S1											
E00-xxxx-3153	MS	LC/HO	0.5	1:5	24	S1											
E00-xxxx-3154		LC/HO	0.5	1:25	24	S1											
E00-xxxx-3155		LC/HO	0.5	1:25	24	S1											
E00-xxxx-3156		LC/HO	0.5	1:25	24	S1											
E00-xxxx-3156	MS	LC/HO	0.5	1:25	24	S1											
E00-xxxx-3157		LC/HO	0.5	1:1	36	S1											
E00-xxxx-3158		LC/HO	0.5	1:1	36	S1											
E00-xxxx-3159		LC/HO	0.5	1:1	36	S1											
E00-xxxx-3159	MS	LC/HO	0.5	1:1	36	S1											
E00-xxxx-3160		LC/HO	0.5	1:5	36	S1											
E00-xxxx-3161		LC/HO	0.5	1:5	36	S1											
E00-xxxx-3162		LC/HO	0.5	1:5	36	S1											
E00-xxxx-3162	MS	LC/HO	0.5	1:5	36	S1											
E00-xxxx-3163		LC/HO	0.5	1:25	36	S1											
E00-xxxx-3164		LC/HO	0.5	1:25	36	S1											
E00-xxxx-3165		LC/HO	0.5	1:25	36	S1											
E00-xxxx-3165	MS	LC/HO	0.5	1:25	36	S1											
E00-xxxx-3166		LC/HO	0.5	1:1	48	S1											
E00-xxxx-3167		LC/HO	0.5	1:1	48	S1											
E00-xxxx-3168		LC/HO	0.5	1:1	48	S1											
E00-xxxx-3168	MS	LC/HO	0.5	1:1	48	S1											
E00-xxxx-3169		LC/HO	0.5	1:5	48	S1											
E00-xxxx-3170		LC/HO	0.5	1:5	48	S1											
E00-xxxx-3171		LC/HO	0.5	1:5	48	S1											
E00-xxxx-3171	MS	LC/HO	0.5	1:5	48	S1											
E00-xxxx-3172		LC/HO	0.5	1:25	48	S1											
E00-xxxx-3173		LC/HO	0.5	1:25	48	S1											
E00-xxxx-3174		LC/HO	0.5	1:25	48	S1											
E00-xxxx-3174	MS	LC/HO	0.5	1:25	48	S1											

Soil Type 1 (HC/LO) _____

Soil Type 2 (LC/HO) _____

Col 8 Balance ID _____

T/D/I _____ ___/___/ ____

Col 9 CaCl2 Soln ID _____

T/D/I _____ ___/___/ ____

Col 10 (16 hr) Inc. ID _____

Start T/D/I _____ ___/___/ ____

Stop T/D/I _____ ___/___/ ____

Col 10 (24 hr) Inc. ID _____

Start T/D/I _____ ___/___/ ____

Stop T/D/I _____ ___/___/ ____

Col 10 (36 hr) Inc. ID _____

Start T/D/I _____ ___/___/ ____

Stop T/D/I _____ ___/___/ ____

Col 10 (48 hr) Inc. ID _____

Start T/D/I _____ ___/___/ ____

Stop T/D/I _____ ___/___/ ____

Col 11 Test Subst. ID _____

T/D/I _____ ___/___/ ____

Col 12 Inc. ID _____

Start T/D/I _____ ___/___/ ____

Stop T/D/I _____ ___/___/ ____

Col 13 T/D/I _____ ___/___/ ____

Col 14 T/D/I _____ ___/___/ ____

Col 16 MeOH Dil'n Soln ID _____

T/D/I _____ ___/___/ ____

Col 15 Balance ID _____

T/D/I _____ ___/___/ ____

Col 17 T/D/I _____ ___/___/ ____

Col 18 Spike Soln ID _____

T/D/I _____ ___/___/ ____

GLP Study Number:

Optimal Ratio/Mass Balance | ETS-8-159 Section 12.5 (cont.) | Test Substance:

Sample ID	Spike	Soil Type	Test Subs. conc., mg/L	Soil:Soln Ratio	HR	Sampling	Remove aqueous and weigh tube+contents, g	MeOH Addition, record mLs (2.0 or 3.0 mL)	Centrifuge and transfer	MeOH Addition, record mLs (2.0 or 3.0 mL)	Centrifuge and transfer	MeOH Addition, record mLs (2.0 or 3.0 mL)	Centrifuge and transfer	1.00 mL Study Sample	Add Spike Soln (uL)	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18
E00-xxxx-3007	—	—	0.0	NA	48	S2		(2)		(2)		(2)				
E00-xxxx-3008	—	—	0.0	NA	48	S2		(2)		(2)		(2)				
E00-xxxx-3009	—	—	0.0	NA	48	S2		(2)		(2)		(2)				
E00-xxxx-3009	MS	—	0.0	NA	48	S2		(2)		(2)		(2)				
E00-xxxx-3010	—	—	0.5	NA	48	S2		(2)		(2)		(2)				
E00-xxxx-3011	—	—	0.5	NA	48	S2		(2)		(2)		(2)				
E00-xxxx-3012	—	—	0.5	NA	48	S2		(2)		(2)		(2)				
E00-xxxx-3012	MS	—	0.5	NA	48	S2		(2)		(2)		(2)				
E00-xxxx-3022	—	HC/LO	0.0	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3023	—	HC/LO	0.0	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3024	—	HC/LO	0.0	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3024	MS	HC/LO	0.0	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3025	—	HC/LO	0.0	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3026	—	HC/LO	0.0	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3027	—	HC/LO	0.0	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3027	MS	HC/LO	0.0	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3028	—	HC/LO	0.0	1:25	48	S2		(2)		(2)		(2)				
E00-xxxx-3029	—	HC/LO	0.0	1:25	48	S2		(2)		(2)		(2)				
E00-xxxx-3030	—	HC/LO	0.0	1:25	48	S2		(2)		(2)		(2)				
E00-xxxx-3030	MS	HC/LO	0.0	1:25	48	S2		(2)		(2)		(2)				
E00-xxxx-3094	—	HC/LO	0.5	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3095	—	HC/LO	0.5	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3096	—	HC/LO	0.5	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3096	MS	HC/LO	0.5	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3097	—	HC/LO	0.5	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3098	—	HC/LO	0.5	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3099	—	HC/LO	0.5	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3099	MS	HC/LO	0.5	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3100	—	HC/LO	0.5	1:25	48	S2		(2)		(2)		(2)				
E00-xxxx-3101	—	HC/LO	0.5	1:25	48	S2		(2)		(2)		(2)				
E00-xxxx-3102	—	HC/LO	0.5	1:25	48	S2		(2)		(2)		(2)				
E00-xxxx-3102	MS	HC/LO	0.5	1:25	48	S2		(2)		(2)		(2)				
E00-xxxx-3166	—	LC/HO	0.5	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3167	—	LC/HO	0.5	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3168	—	LC/HO	0.5	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3168	MS	LC/HO	0.5	1:1	48	S2		(3)		(3)		(3)				
E00-xxxx-3169	—	LC/HO	0.5	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3170	—	LC/HO	0.5	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3171	—	LC/HO	0.5	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3171	MS	LC/HO	0.5	1:5	48	S2		(2)		(2)		(2)				
E00-xxxx-3172	—	LC/HO	0.5	1:25	48	S2		(2)		(2)		(2)				
E00-xxxx-3173	—	LC/HO	0.5	1:25	48	S2		(2)		(2)		(2)				
E00-xxxx-3174	—	LC/HO	0.5	1:25	48	S2		(2)		(2)		(2)				
E00-xxxx-3174	MS	LC/HO	0.5	1:25	48	S2		(2)		(2)		(2)				

Col 8 Balance ID _____
T/D/I _____ ____/____/ _____
Col 9 MeOH ID _____
T/D/I _____ ____/____/ _____
Col 10 T/D/I _____ ____/____/ _____
Col 11 MeOH ID _____
T/D/I _____ ____/____/ _____
Col 12 T/D/I _____ ____/____/ _____

Col 13 MeOH ID _____
T/D/I _____ ____/____/ _____
Col 14 T/D/I _____ ____/____/ _____
Col 15 T/D/I _____ ____/____/ _____
Col 16 Spike Soln ID _____
T/D/I _____ ____/____/ _____
Internal Standard ID _____
T/D/I _____ ____/____/ _____

GLP Study Number:

3M ENVIRONMENTAL LABORATORY

METHOD

PREPARATION OF SOIL SAMPLES FOR SCREENING (TIER II) AND ADVANCED (TIER III) SORPTION STUDIES FOR FLUOROCHEMICALS AS THE TEST SUBSTANCE (BASED ON OECD GUIDELINE 106)

Method Number: ETS-8-160.1

Adoption Date: 10/31/00

Revision Date: 5/17/01

Author: *Cindy Carlson, Mark Ellefson*

Approved By:

Laboratory Manager — Date: 05/17/01

Group Leader — Date: 05/17/01

1.0 SCOPE AND APPLICATION

1.1 By complying with the requirements of the OECD Guideline 106, "Adsorption - Desorption Using A Batch Equilibrium Method", the data will meet the testing requirements of the European Community and Canada.

1.2 This method complies with OPPTS 835.1220 "Sediment and Soil Adsorb/Desorb Isotherm" and is also intended to meet testing requirements of both the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA) for the United States.

1.3 This method is applicable to test systems using soils, sediments or similar matrices as the adsorptive material.

1.4 This method is applicable to the testing of fluorochemical substances manufactured or distributed by 3M.

1.5 An approximate solubility concentration of the test substance in water should be established prior to the commencement of this method, so that appropriate concentrations of the test substance in the study samples are used throughout.

2.0 SUMMARY OF METHOD

2.1 Tier II: Adsorption Kinetics (One concentration):

2.1.1 Appropriate soils and/or sediments and/or sludges are selected for the study. Replicate study samples containing the soils (or sediments or sludges) are equilibrated by shaking for at least 12 hours at room temperature with 0.01 M $CaCl_2$. These study samples are then dosed with the test substance and placed back on an orbital shaker. Aliquots of these study samples are removed at designated time points throughout a 48-hour time period. These study samples are then prepared and analyzed for the target analyte. The adsorption kinetics are then determined using this data. After the last aliquot is taken (48 hour time point) the study samples are saved and used for the desorption kinetics portion of the method.

2.2 Tier III: Desorption Kinetics (One concentration):

2.2.1 After the adsorption kinetics experiment, the study samples are centrifuged and the aqueous phase removed. The volume of solution removed is replaced by an equal volume of 0.01 M $CaCl_2$ without test substance. The new mixture is agitated until the desorption equilibrium is reached. During a 48-hour period, at defined time intervals, aliquots of the aqueous phase are removed and analyzed for the target analyte. The experiment then continues with the original mixture. The desorption kinetics are determined using this data.

2.3 Tier III: Adsorption Isotherms (Five concentrations):

2.3.1 Five test substance concentrations are used covering two orders of magnitude (if the solubility of the test substance permits). Study samples containing soil (or sediments or sludges) in contact with 0.01 M $CaCl_2$ are equilibrated for a minimum of 12 hours. After this, the study samples are dosed with test substance. The samples are then gently agitated until adsorption equilibrium is reached. Sample sets are removed from the orbital shaker at designated time intervals. The study samples are then prepared and analyzed for the target analyte. The adsorption isotherms are calculated using this data. The study samples from the last time interval are saved for the desorption isotherm study.

2.4 Tier III: Desorption Isotherms:

2.4.1 The study samples from the adsorption isotherm study are used for the desorption isotherm study. These samples are centrifuged and the aqueous layer removed. An equal volume of fresh 0.01 M $CaCl_2$ solution containing no test substance is added to each sample. The samples are placed back in the orbital shaker and equilibrated for 48 hours. These new study samples are then prepared and analyzed for the target analyte. (These study samples are saved and used to determine mass balance.) The desorption isotherms are determined using this data.

2.5 Tier III: Mass Balance:

2.5.1 The study samples from the desorption isotherm study are used for the mass balance study. The study samples are centrifuged and the aqueous layer removed. Three portions of methanol are added to the study samples. With each addition of methanol, the study samples are agitated, centrifuged, and the methanol removed and placed in a second container. These subsequent (methanol) study samples are then prepared and analyzed for the target analyte. Mass balance is determined using this data.

2.6 In all cases, adequate quality assurance samples are prepared and analyzed.

3.0 DEFINITIONS

3.1 Test Substance: Any substance (mixture or controlled compound) added or administered to the test system for the purpose of biological or chemical measurements.

3.2 Target Analyte: In the analytical phase of a study, the chemical(s) singled out in analyses is the target analyte. The target analyte may be identical to the test substance used in the in-life phase of the study, or a by-product of that chemical.

3.3 Reference Substance: A material or substance, one or more properties or constituents of which are sufficiently well established for it to be used for the calibration of an apparatus, the assessment of a measurement method, or for assigning values to materials.

3.4 Test system: Any animal, plant, microorganism, chemical, or physical matrix (including soil or water) or any subpart thereof, to which the test, control, or reference substance is administered or added for study.

3.5 Study sample: A sample containing the test substance in contact with the test system, or any of the subsequent samples generated from the initial set up.

3.6 Control Sample: A sample containing the test substance, but which does not include the entire test system or any subsequent samples generated from the initial set up. In most, but not all cases, control samples go through all of the same processes as the study samples.

3.7 Matrix Blank: A sample that has not been exposed to the test substance and/or target analyte. Matrix blanks may or may not include the entire test system. The term matrix blank also includes any subsequent samples generated from the initial matrix blank set up. In most, but not all cases, matrix blanks go through all of the same processes as the study samples.

3.8 Solvent Blank: Aqueous or organic solvent that has not been exposed to the test substance and/or target analyte, and is analyzed to demonstrate the absence of target analytes in the solvent.

4.0 WARNINGS AND CAUTIONS

4.1 Health and Safety Warnings:

4.1.1 Many of the test substances used in the laboratory are not completely characterized for toxicity and other health hazards. They should be treated as potential health hazards. Proper equipment such as gloves and safety glasses should be worn when working with these chemicals or any solvents. Skin contact and inhalation should be avoided. Preparation of the stock standards should be done under a hood. All spills should be wiped up immediately.

4.2 Cautions:

4.2.1 Contamination of glassware and equipment by the compounds of interest are an on-going issue within laboratories. Care must be taken to rinse any reusable glassware with appropriate solvents before and after the glassware is used. Triple rinsing with methanol or acetone is recommended to remove background contamination from the glassware. Clean all spills immediately to avoid present or future contamination.

4.2.2 Use disposable glassware whenever possible.

5.0 INTERFERENCES

5.1 Any compound that co-elutes with the target analyte(s) or the reference material during the HPLC/MS analysis can interfere with quantification.

6.0 EQUIPMENT

6.1 Balance capable of weighing to 0.1 mg, such as OHAUS Brand Model GA200

6.2 Centrifuge capable of maintaining 4,000 ± 200 rpm, such as Jouan Brand Model C412

6.3 Orbital shaker capable of a gentle rotation and temperature controlled capable of maintaining 23 ± 3°C, such as Lab-Line Model Environ-Shaker

6.4 Vacuum Pump, such as Gast #DOA-P104-AA (Optional)

7.0 SUPPLIES AND MATERIALS

7.1 15-mL polypropylene centrifuge tubes, such as VWRbrand® Centrifuge Tubes, catalog number 21008-089

7.2 15-mL polystyrene centrifuge tubes, such as VWRbrand® Centrifuge Tubes, catalog number 21008-202

7.3 15-mL styrene butadiene centrifuge tubes, such as VWRbrand® Centrifuge Tubes, catalog number 21008-226

7.4 15-mL glass centrifuge tubes

7.5 30-mL Teflon centrifuge tubes

7.6 50-mL plastic centrifuge tubes, such as VWRbrand® 20171

7.7 Syringes, 10-µL, 25-µL, 1000-µL

7.8 Volumetric flasks, 10-mL, 100-mL, 1-L, 5-L, Nalgene® and/or glass

7.9 Automatic or manual dispenser, capable of dispensing liquid with ±0.1 mL accuracy

7.10 250-µL 1000-µL manual pipettor(s) and plastic pipette tips, or equivalent

7.11 Autosampler vials, 1.5 to 2 mL GC/HPLC, such as Kimble # 60820-1232 or equivalent

7.12 Autosampler vial caps, such as Wheaton # 224211-01

7.13 GC/HPLC autovial crimper(s) and decrimper(s)

7.14 Appropriately sized storage containers with tight-fitting caps for solutions

7.15 Glassware, miscellaneous
7.16 150-mL Nalgene® bottles or equivalent
7.17 pH paper capable of distinguishing pH to ±0.5 units

8.0 REAGENTS, SOLUTIONS AND STANDARDS

8.1 Reagents

8.1.1 Methanol, HPLC grade, such as J.T. Baker #9093.

8.1.2 ASTM Type I water, 18.0 MΩ or greater.

8.1.3 $CaCl_2$, Anhydrous, to meet ACS specifications (>96% pure), such as J.T. Baker #1311.

8.1.4 Soils: Appropriate soil types selected from Table 1 below. (Soils should be air-dried at ambient temperature and sieved to a particle size ≤2 mm.)

Table 1

Soil Types	pH range (in 0.01 M $CaCl_2$)	Organic Carbon content (%)	Clay Content (%)	Soil Texture
1	4.5-5.5	1.0-2.0	65-80	Clay
2	>7.5	3.5-5.0	20-40	Clay loam
3	5.5-7.0	1.5-3.0	15-25	Silt loam
4	4.0-5.5	3.0-4.0	15-30	Loam
5	<4.0-6.0	<0.5-1.5	<10-15	Loamy sand
6	>7.0	<0.5-1.0	40-65	Clay loam/clay
7	<4.5	>10	<10	Sand/loamy sand

NOTE: It may not be possible to obtain soils that match all criteria. Soils will be used that match as closely as possible the parameters as listed. Exceptions will be noted.

8.1.5 Sediment: Sediment may be used in addition to the soil types listed, but is not required as part of this method.

8.1.6 Sludge: In addition to soil and/or sediment, sludge may be used as appropriate to achieve the goals of the study in question. The use of sludge is not required by this method.

8.1.7 Test Substance: Characterized by appropriate analytical technique

8.1.8 Reference Material: THPFOS, 1H, 1H, 2H, 2H-perfluorooctanesulfonic Acid, and/or PFBS, Potassium Perfluorobutanesulfonate.

8.2 Solutions and Standards:

NOTE: Different quantities of any of the solutions may be prepared, as long as solutions are documented as to how they were made.

8.2.1 Solution A: 0.01 M $CaCl_2$ Solution:
5.55±0.02 grams of $CaCl_2$ dissolved in 5.0 L of ASTM Type I water (or as appropriate for other volumes). This solution may be stored for up to 6 months at room temperature.

8.2.2 Solution B: An appropriate concentration of stock test substance in 0.01 M $CaCl_2$ Solution:
Prepare an appropriate concentration of test substance in 0.01 M $CaCl_2$ in sufficient quantity to be used through out the study. Use volumetric flask and

record weight. Immediately transfer into a Nalgene® container(s). This solution may be stored for up to 6 months at room temperature. However, it is good practice to take an aliquot of this solution and prepare it to run along with samples prepared at the same time to monitor for any possible degradation and/or adsorption to the container.

8.2.2.1 NOTE: If there is concern about the solubility of the test substance in aqueous solutions the stock solution may be made in an appropriate solvent.

9.0 SAMPLE HANDLING

9.1 All study samples generated and prepared for analysis by HPLC/MS (in tightly capped vials) may be left at room temperature for a maximum of 15 days, or refrigerated for a maximum of six months.

9.2 The autovial study samples may be reanalyzed at any time throughout the study. However, autovials whose caps have been pierced should have the caps replaced within 3 days.

10.0 QUALITY CONTROL

10.1 Matrix Blanks consisting of the following types will be prepared for the study:
10.1.1 0.01 M $CaCl_2$ in contact with each of the selected soil types

10.2 Matrix Spikes (MS): One matrix spike will be prepared for each sample set, except as noted in the method.

10.3 Solvent Blanks will be prepared for the study:
10.3.1 0.01 M $CaCl_2$ and no soil
10.3.2 Methanol and no soil (in some sections)

10.4 Control Samples: Control Samples per following type will be prepared for the study:
10.4.1 Test substance in 0.01 M $CaCl_2$ only
10.4.2 Test substance in methanol only (in some sections)

10.5 Sample Replicates: Sample sets will consist of a "sample," "duplicate," and "triplicate," except as noted in the method

10.6 Surrogate(s): No surrogate will be used in this study.

10.7 Reference Substance: THPFOS and/or PFBS will be used as the reference substance.

11.0 CALIBRATION AND STANDARDIZATION

11.1 This section is outside the application of this method.

12.0 PROCEDURES

12.1 **Labeling of Samples (Centrifuge Tubes) and Autovials**—Centrifuge tubes and autovials should be prelabeled, according to the following scheme:

12.1.1 The study project should be given a unique Lab request number from 3M's Environmental Laboratory Sample Control Numbering system.

12.1.2 Study Samples, Labeling of Centrifuge Tubes: Each individual sample and QC sample that is set up will have a unique identifier.

12.1.3 If necessary, aliquots taken from the study samples will be uniquely identified by using the initial study sample ID and then adding an additional designator for each aliquot removed from the study sample.

12.1.4 All autovials will clearly identify any "extra" dilution made of its contents.

12.1.5 All Matrix Spike samples will contain all of the above information, as well as the designator "MS."

12.2 Adsorption Kinetics at One Concentration of the Test Substance

12.2.1 Select appropriate soils and/or sediments and/or sludges using the soils/sediments/sludges listed in section 8.1. Use the centrifuge tube material/type determined for use from Method ETS-8-159.

12.2.2 Prepare a sufficient number of individual containers of each series such that a (triplicate) set of tubes can be removed according to the following approximate time intervals: 0 hr, 2 hr, 4 hr, 8 hr, 16 hr, 24 hr, 36 hr and 48 hr.

12.2.2.1 NOTE: If the soil:solution ratio permits one set of (triplicate) tubes may be prepared for each soil, and aliquots taken out at each time point rather than preparing a separate set of tubes for each time point (serial method). The volume of the aliquot must not exceed 2.5% of the total volume in the test vessel. In this case matrix spikes will only be performed for two time points rather than all of them.

12.2.3 Using the soil: solution ratio determined from Method ETS-8-159, set up the appropriate study sample grid using Table 2.

Table 2

Conc., mg/L	Soil:Solution Ratio	Soil, grams	mL of 0.01 M $CaCl_2$ Solution	Number of Time Points	No. of Tubes with No Soil (Control Sample)	No. of Tubes with Soil/Sediment/ Sludge	µL of 50 mg/L Stock Test Substance*
0.0	NA	0.00	12.5 ± 0.1	2	3 x 2 = 6	NA	0.00
~0.5	NA	0.00	12.5 ± 0.1	8	3 x 8 = 24	NA	200*
0.0	1:1	5.00 ± 0.05	5.0 ± 0.1	2	NA	3 x 2 = 6 (x 5)	0.00
0.0	1:5	2.50 ± 0.05	12.0± 0.1	2	NA	3 x 2 = 6 (x 5)	0.00
0.0	1:25	1.00 ± 0.05	25.0 ± 0.2	2	NA	3 x 2 = 6 (x 5)	0.00
~0.5	1:1	5.00 ± 0.05	4.95 ± 0.1	8	NA	3 x 8 = 24 (x 5)	50*
~0.5	1:5	2.50 ± 0.05	12.4 ± 0.1	8	NA	3 x 8 = 24 (x 5)	125*
~0.5	1:25	1.00 ± 0.05	24.75 ± 0.2	8	NA	3 x 8 = 24 (x 5)	250*

Only need one from this set.

Only need one from this set.

To be added in **after the study samples have equilibrated for 12 hours.*

12.2.4 Weigh the soil and record on the appropriate data form.

12.2.5 Add the appropriate volume of 0.01 M $CaCl_2$ solution (Solution A) to each tube and record the volume on the appropriate data form.

12.2.6 Document the pH of the stock test substance solution, using pH paper. Record to ±0.5 pH units.

12.2.7 The study samples are equilibrated for a minimum of 12 hours by placing the tubes on an orbital shaker at 23 ±3 °C using a gentle rotation. Record start and stop times/dates on appropriate data forms.

12.2.8 Remove the tubes after the 12 hours. Add the stock test substance solution.

12.2.8.1 NOTE: The test substance concentrations specified in Table 2 (grayed section) are meant as a guide only. The final concentration of the test substance can be changed to better accommodate the analytical objectives of the study.

12.2.9 All but the "0 hr" study samples are then placed back on the orbital shaker for designated time intervals at 23 ±3 °C using a gentle rotation. *The **"0 hr"** study samples proceed directly to 12.2.12.*

12.2.9.1 NOTE: If using the serial method centrifuge the tubes after the addition of the test substance and take the 0 hour aliquot, then place the tubes on the shaker.

12.2.10 Remove study sample sets at the following approximate time points and record the date/time.

2 hr 16 hr 48 hr
4 hr 24 hr
8 hr 36 hr

12.2.10.1 Note: If using the serial method remove the sample tubes at each time point, follow steps 12.2.11 through 12.2.15. Add an amount of fresh $CaCl_2$ equal to the amount taken out as an aliquot. Then vortex and return the tube to the shaker.

12.2.11 **For the "48 hr" study samples only**, weigh the container + contents and record on the proper data form. Document the pH for one of each sample set. Record to ±0.5 pH units.

12.2.12. Centrifuge until the aqueous layer appears clear

12.2.13 Withdraw an aliquot of the study sample and dispense into a prelabeled autovial. Dilute as needed.

12.2.14 Spiking: Refer to section 12.7 for spiking.

12.2.15 Continue to pull the timed study sample sets at the designated time points and repeat steps 12.2.11 through 12.2.15, as appropriate.

12.2.16 **Do not discard the "48 hr" study sample tubes.**

12.2.17 Add THPFOS and/or PFBS internal standard prior to analysis.

12.2.18 After all the study samples have been pulled and prepared, analyze autovials using appropriate methodology to determine concentration of target analyte.

12.2.19 Make the appropriate calculations as defined in the calculations section.

12.2.20 Determine the Adsorption Kinetics.

12.3 Desorption Kinetics—Serial Method

12.3.1 Desorption Kinetics Study Samples will be generated according to the following grid (Table 3).

Table 3

Hour 48 Study Samples*			
Conc., mg/L	Number of Time Points	No. of Tubes with No Soil (Control Sample)	No. of Tubes with Each Soil/Sludge/ Sediment
0.0	1	3 x 1 = 3	3 x 1 = 3 (x 5)
~0.5	7	3 x 7 = 21	3 x 7 = 21 (x 5)

**Actual Study Sample Set may differ from this based on results from section 12.2.*

12.3.2 This section uses the last set of sample tubes (**"48 hr"**) from Method ETS-8-160.0 Section 12.2 (Adsorption Kinetics Study).

12.3.3 Centrifuge the tubes until the aqueous layer appears clear. Remove as much of the aqueous layer as possible, taking care not to remove any of the solids.

12.3.4 Replace the volume of solution removed with an equal volume of fresh 0.01 M $CaCl_2$ solution containing no test substance. This is done by refilling with fresh Solution A until the weight of the container + contents is equal to the weight (±0.1 g) recorded in step 12.2.11. Record this new weight on the appropriate data form.

12.3.5 Place the study samples back into the orbital shaker and continue the gentle agitation for a total of 48 hours, during which aliquots of the aqueous phase will be taken at the following approximate times: 2 hr, 4 hr, 8 hr, 16 hr, 24 hr, 32 hr and 48 hour. (Times may be varied depending on results from Section 12.1.) Record the actual times on the appropriate data forms. Prepare each aliquot by following the steps given in 12.3.6 through 12.3.7.

NOTE: Maximum sample volume removal is limited to approximately 1% - 2% per time point, thus limiting sample volume removal.

12.3.6 Draw two aliquots of the study sample from the 24-hour and 48-hour time points (for matrix spike); draw only one aliquot of the study sample for the other time points. Transfer the contents into a prelabeled autovial and cap.

12.3.6.1 **Spiking: Important! Only two time points will be spiked for this series of study samples: 24 hr and 48 hr due to limited volume removal constraints.** See section 12.7 for spiking.

12.3.7 Replacement of 0.01 M $CaCl_2$ solution to study samples: Add an equal amount of fresh 0.01 M $CaCl_2$ solution (Solution A) to the centrifuge tubes after the withdrawal of the sample aliquots.

12.3.8 At each time point, follow steps 12.3.5 through 12.3.8 until the last time point has been sampled. Note: step 12.3.8 is not repeated for the final time point.

12.3.9 Add THPFOS and/or PFBS internal standard prior to analysis.

12.3.10 After all the study samples have been pulled and prepared, analyze autovials using appropriate methodology to determine concentration of target analyte.

12.3.11 Make the appropriate calculations as defined in the calculations section.

12.3.12 Determine the Desorption Kinetics.

12.4 Determination of Freundlich Adsorption Isotherms

12.4.1 Select appropriate soils and/or sediments and/or sludges using the soils/sediments/sludges listed in section 8.1. Use the centrifuge tube material/type and soil:solution ratio determined for use from Method ETS-8-159.

12.4.2 Prepare a sufficient number of individual containers of each series such that a (triplicate) set of tubes exists for each soil/concentration combination

12.4.3 Set up the study sample grid, according to Table 4. Remember that **only one** of these ratios will be selected for use in this part of the study!

Table 4

					No. of Tubes	No. of Tubes	
Conc., mg/L	Soil:Solution Ratio	Soil, grams	mL of 0.01 M $CaCl_2$ Solution (Solution A)	Number of Time Points	No Soil (Control Sample)	Each soil (or sediment or sludge)	µL of 50 mg/L Stock Test Substance
0.0	NA	0.00	12.5 ± 0.1	2	3	NA	0.00*

~0.05	NA	0.00	12.5 ± 0.1	2	3	NA	12.5*
~0.2	NA	0.00	12.5 ± 0.1	2	3	NA	50*
~0.5	NA	0.00	12.4 ± 0.1	2	3	NA	125*
~1	NA	0.00	12.25 ± 0.1	2	3	NA	250*
~5	NA	0.00	11.25 ± 0.1	2	3	NA	1250*
0.0	1:1	5.00 ± 0.05	5.0 ± 0.1	2	NA	3 (x 5)	0.00*
0.0	1:5	2.50 ± 0.05	12.5 ± 0.1	2	NA	3 (x 5)	0.00*
0.0	1:25	1.00 ± 0.05	25.0 ± 0.2	2	NA	3 (x 5)	0.00*
~0.05	1:1	5.00 ± 0.05	5.0 ± 0.1	2	NA	3 (x 5)	5.0*
~0.05	1:5	2.50 ± 0.05	12.5 ± 0.1	2	NA	3 (x 5)	12.5*
~0.05	1:25	1.00 ± 0.05	25.0 ± 0.2	2	NA	3 (x 5)	25*
~0.2	1:1	5.00 ± 0.05	5.0 ± 0.1	2	NA	3 (x 5)	20*
~0.2	1:5	2.50 ± 0.05	12.5 ± 0.1	2	NA	3 (x 5)	50*
~0.2	1:25	1.00 ± 0.05	24.9 ± 0.2	2	NA	3 (x 5)	100*
~0.5	1:1	5.00 ± 0.05	5.0 ± 0.1	2	NA	3 (x 5)	50*
~0.5	1:5	2.50 ± 0.05	12.4 ± 0.1	2	NA	3 (x 5)	125*
~0.5	1:25	1.00 ± 0.05	24.8 ± 0.2	2	NA	3 (x 5)	250*
~1	1:1	5.00 ± 0.05	4.9 ± 0.1	2	NA	3 (x 5)	100*
~1	1:5	2.50 ± 0.05	12.25 ± 0.1	2	NA	3 (x 5)	250*
~1	1:25	1.00 ± 0.05	24.5 ± 0.2	2	NA	3 (x 5)	500*
~5	1:1	5.00 ± 0.05	4.5 ± 0.1	2	NA	3 (x 5)	500*
~5	1:5	2.50 ± 0.05	11.25 ± 0.1	2	NA	3 (x 5)	1250*
~5	1:25	1.00 ± 0.05	22.5 ± 0.2	2	NA	3 (x 5)	2500*

Only need one from this set.

Only need one from this set.

Only need one from this set.

Only need one from this set.

Only need one from this set.

Only need one from this set.

* *To be added in **after** the study samples have equilibrated for 12 hours.*

12.4.4 Weigh the soil and record on the appropriate data form.

12.4.5 Add the appropriate volume of 0.01 M $CaCl_2$ solution (Solution A) to each tube and record the volume on the appropriate data form.

12.4.6 Document the pH of the stock test substance solution, using pH paper. Record to ±0.5 pH units.

12.4.7 The study samples are equilibrated with 0.01 M $CaCl_2$ for a minimum of 12 hours by placing the tubes on an orbital shaker at 23 ±3 °C using a gentle rotation. Record start and stop times/dates on appropriate data forms.

12.4.8 Remove the tubes after the 12 hours and add the stock test substance solution.

12.4.8.1 NOTE: The test substance concentrations specified in Table 4 (grayed section) are meant as a guide only. The final concentration of the test substance can be changed to better accommodate the analytical objectives of the study. Fewer concentrations may be used if there is a solubility limitation as long as the reasons for doing so are documented in the final report.

12.4.9 Steps for **"0 hr"** study samples:

12.4.9.1 Gently shake to mix the contents of the test vessels.

12.4.9.2 Centrifuge until the aqueous layer appears clear.

12.4.9.3 Document the pH for one of each sample set per time point.

12.4.9.4 Withdraw an aliquot from the test vessel and dispense into a prelabeled autovial. Replace the amount aliquotted with fresh 0.01M $CaCl_2$ solution. Dilute as needed.

12.4.9.5 Spiking: Refer to Section 12.7 for spiking.

12.4.10 Steps for "48 hour" study samples:

12.4.10.1 The test vessels are placed back on the orbital shaker for 48 hours at 23 ±3 °C using a gentle rotation. Record start and stop times/dates on appropriate data forms.

12.4.10.2 Remove sample sets after 48 hours and record the date/time.

12.4.10.3 Weigh each container + contents and record on the appropriate data form.

12.4.10.4 Centrifuge until the aqueous layer appears clear.

12.4.10.5 Document the pH for one of each sample set.

12.4.10.6 Withdraw an aliquot of the study sample and dispense into a prelabeled autovial. Dilute as needed.

12.4.10.7 Spiking: Refer to Section 12.7 for spiking.

12.4.11 Do not discard the "48 hr" set of study samples. These will be used in Section 12.5.

12.4.12 Add THPFOS and/or PFBS internal standard prior to analysis.

12.4.13 After all study samples have been pulled and prepared, analyze autovials using appropriate methodology to determine concentration of target analyte.

12.4.14 Make appropriate calculations as defined in the Calculations section.

12.4.15 Determine the Freundlich Adsorption Isotherms

12.5 Desorption Isotherms

12.5.1 Use the test vessels generated from ETS-8-160 Section 12.4, Adsorption Isotherms. (Refer to Table 5)

Table 5

Conc., mg/L	Number of Time Points	# of Tubes w/ No Soil (Control Samples)	# of Tubes w/ Each Soil (or sediment or sludge)
0.0	1	3 x 1 = 3	3 x 1 = 3 (x 5)
~0.05	1	3 x 1 = 3	3 x 1 = 3 (x 5)
~0.2	1	3 x 1 = 3	3 x 1 = 3 (x 5)
~0.5	1	3 x 1 = 3	3 x 1 = 3 (x 5)
~1	1	3 x 1 = 3	3 x 1 = 3 (x 5)
~5	1	3 x 1 = 3	3 x 1 = 3 (x 5)

12.5.2 Centrifuge the tubes until the aqueous layer appears clear. Remove as much of the aqueous layer as possible, taking care not to remove any of the solid layer.

12.5.3 Replace the volume of solution removed with an equal volume of fresh 0.01 M $CaCl_2$ solution containing no test substance. This is done by refilling with the aqueous solution until the weight of the container + contents is equal to (±0.1 g) what it was in step 12.4.10.3 (before removal of the aqueous portion). Record this new weight on the appropriate data form.

12.5.4 Place the tubes back in the orbital shaker and gently rotate at 23 ±3 °C for 48 hours. Record date/time on the appropriate data form.

12.5.5 Remove the tubes from the shaker after 48 hours and record date/time.

12.5.6 Centrifuge until the aqueous layer appears clear.
12.5.7 Withdraw an aliquot of the study sample and dispense into a prelabeled autovial. Dilute as needed.
12.5.8 Spiking: Refer to Section 12.7 for spiking.
12.5.9 **Do not discard the "48 hr" set of study samples. These will be used in Section 12.6**
12.5.10 Add THPFOS and/or PFBS internal standard prior to analysis.
12.5.11 After all study samples have been pulled and prepared, analyze autovials using appropriate methodology to determine concentration of target analyte.

12.6 Mass Balance Determination

12.6.1 **Continue using the test vessels from Section 12.5, Desorption Isotherms**
12.6.2 Centrifuge the tubes until the aqueous layer appears clear.
12.6.3 Remove as much of the aqueous layer as possible, taking care not to remove any of the solids layer (the aqueous layer may be discarded).
12.6.4 Add the amount of methanol appropriate to the amount of soil in each tube by referring to the following table:

Table 6

Weight of Soil, grams	mL of MeOH to use	No. of Extractions	Total mL of Methanol
~0.0	2.0	3	6.0
~1.0	2.0	3	6.0
~2.5	4.0	3	12.
~5.0	5.0	4	20.

12.6.5 Vortex the tubes for ~1 minute. (Alternatively, tubes may be placed horizontally in a shaker and shaken for ~5 minutes.)
12.6.6 Centrifuge until the solvent layer appears clear. Remove as much of the solvent (methanol) layer as possible without removing the solids layer.
12.6.7 Place the solvent in a second prelabeled centrifuge tube.
12.6.8 Repeat steps 12.6.4 through 12.6.7, using the same prelabeled centrifuge tube for each extraction.
12.6.9 Mix the contents of the second centrifuge tube after the last extraction volume is added. Centrifuge the solvent to remove particulates if needed.
12.6.10 If it is anticipated that the concentration of the test substance will be near or below the limit of quantification, a concentration step should be performed prior to continuing with step 12.6.11.
12.6.11 Withdraw an aliquot of the study sample from step 12.6.10 and dispense into a prelabeled autovial. Dilute as needed.
12.6.12 Spiking: Refer to Section 12.7 for spiking.
12.6.13 Add THPFOS and/or PFBS internal standard prior to analysis.
12.6.14 After all study samples have been pulled and prepared, analyze autovials using appropriate methodology to determine concentration of target analyte.
12.6.15 Make appropriate calculations as defined in the Calculations section.
12.6.16 Determine mass balance.

12.7 **Spiking**

12.7.1 Only one replicate per study sample set will be spiked with a known amount of the test substance.

12.7.2 Spiking will be done whenever any aliquoted study sample is generated.

12.7.3 Dilute samples to the appropriate level for analysis (if necessary) with methanol.

12.7.4 Add an appropriate amount of spiking solution to provide a spike concentration of approximately 200ppb (or as deemed appropriate).

13.0 DATA ANALYSIS AND CALCULATIONS

13.1 Data analysis and calculations should be done using the templates provided from OECD Guideline 106.

14.0 METHOD PERFORMANCE

There are no previously defined method performance criteria for this method. However, this method will generate statistical data that may be used as a guideline for monitoring performance for Method ETS-8-160.

14.1 Accuracy

14.1.1 Matrix Spikes (MS): One matrix spike per study sample set will be generated. The matrix spikes will be calculated by using the following equation:

$$\frac{(\text{MS conc. analytical} - \text{Sample conc. analytical})}{(\text{MS Spike conc. theoretical})} \times 100$$

14.2 Precision

14.2.1 Replicates: Triplicate study samples will be generated using this method. Relative Standard Deviations (RSD) will be calculated from the triplicate samples. In the cases, where there are only two replicates, the Relative Percent Difference (RPD) will be calculated.

15.0 POLLUTION PREVENTION AND WASTE MANAGEMENT

15.1 Dispose of sample waste by placing in high or low BTU containers as appropriate.

15.2 Use broken glass containers to dispose of any empty glass containers, pipettes, etc.

16.0 RECORDS

16.1 Laboratory data forms will be generated and filled out during the course of this study. These data forms will be archived according to standard laboratory protocols.

17.0 ATTACHMENTS

17.1 Example data forms:

17.1.1 Suitable Analytical Method Data Form

17.1.2 Suitable Container Data Form

17.1.3 Suitable Desorption Solvent Data Form

17.1.4 Soil:Aqueous Optimal Ratio Data Form

18.0 REFERENCES

18.1 Organization of Economic Cooperation and Development, OECD Guideline for the Testing of chemicals. "Adsorption-Desorption Using a Batch Equilibrium Method: OECD Guideline 106 Adopted 21 January 2000.

18.2 EPA Fate, Transport and Transformation Test Guidelines: OPPTS 835.1220 Sediment and Soil Adsorption/Desorption Isotherm, EPA 712-C-98-048, January 1998.

19.0 AFFECTED DOCUMENTS

19.1 ETS-8-159 Preparation of Soil Samples for Preliminary (Tier I) Sorption Studies for Fluorochemicals as the Test Substance (Based on OECD Guideline 106)

20.0 REVISIONS

Revision Number.	Reason For Revision	Revision Date
160.1	Requirements for specific test substance concentrations were taken out to accommodate less soluble species and matrix effects. The 1.00 mL sample size was eliminated to accommodate dilutions of the original sample. The 1:5 ratio sample size was adjusted to be consistent with the ETS-8-19.0 sample size. The adsorption kinetics section was revised to accommodate a serial sample preparation rather than just the parallel method.	

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OECD/OCDE 106

Adopted :
21st January 2000

OECD GUIDELINE FOR THE TESTING OF CHEMICALS

Adsorption - Desorption Using a Batch Equilibrium Method

INTRODUCTION

1. This Guideline is based on the proposal submitted by the European Commission in 1993 and takes into account the comments on that proposal submitted by the Member countries. Several activities undertaken in the European Union bore on the development of an adsorption test. These included an extensive investigation due to the collaboration of the German Umweltbundesamt (UBA), the University of Kiel, and the European Commission and its Joint Research Centre at Ispra, Italy (1)(2). In 1988 UBA organised a ring-test in which 27 laboratories in EU Member States participated (3). An OECD Workshop on Soil Selection was held at Belgirate, Italy, in 1995 (4). The Workshop agreed on the main elements of the updated Test Guideline 106 for an adsorption/desorption test and, in particular, on the characterisation and selection of the soil types for use in the test.

2. Other guidelines concerning adsorption/desorption exist only at national level and are mainly focused on pesticides testing (5)(6)(7)(8)(9)(10)(11). These documents as well as an extensive relevant literature were considered when developing this Guideline.

SIGNIFICANCE AND USE

3. Adsorption/desorption studies are useful for generating essential information on the mobility of chemicals and their distribution in the soil, water and air compartments of our biosphere (12)(13)(14)(15)(16)(17)(18)(19)(20)(21). They can be used in the prediction or estimation, for example, of the availability of a chemical for degradation (22)(23), transformation and uptake by organisms (24); leaching through the soil profile (16)(18)(19)(21)(25)(26)(27)(28); volatility from soil (21)(29)(30); and run-off from land surfaces into natural waters (18)(31)(32). Adsorption data can also be used for comparative and modelling purposes (19)(33)(34)(35).

4. The distribution of a chemical between soil and aqueous phases is a complex process depending on a number of different factors: the chemical nature of the substance (12)(36)(37)(38)(39)(40), the characteristics of the soil (4)(12)(13)(14)(41)(42)(43)(44)(45)(46)(47)(48)(49), and climatic factors such as rainfall, temperature, sunlight and wind. Thus, the numerous phenomena and mechanisms involved in the process of adsorption of a chemical by soil cannot be completely defined by a simplified laboratory model such as the present Guideline. However, even if this attempt cannot cover all the environmentally possible cases, it provides valuable information on the environmental relevance of the adsorption of a chemical.

SCOPE

5. This Guideline is aimed at estimating the adsorption/desorption behaviour of a substance on soils. The goal is to obtain a sorption value which can be used to predict partitioning under a variety of environmental conditions; to this end, equilibrium adsorption coefficients for a chemical on various soils are determined as a function of soil characteristics (e.g. organic carbon content, clay content, soil texture, and

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pH). Different soil types have to be used in order to cover as widely as possible the interactions of a given substance with naturally occurring soils.

6. In this Guideline, adsorption represents the process of the binding of a chemical to surfaces of soils; it does not distinguish between different adsorption processes (physical and chemical adsorption) and such processes as surface catalysed degradation, bulk adsorption or chemical reaction. Adsorption that will occur on colloids particles (diameter < 0.2 µm) generated by the soils is not fully taken into account.

7. The soil parameters that are believed most important for adsorption are: organic carbon content (3)(4)(12)(13)(14)(41)(43)(44)(45)(46)(47)(48); clay content and soil texture (3)(4)(41)(42)(43)(44) (45)(46) (47)(48); and pH for ionisable compounds (3)(4)(42). Other soil parameters which may have an impact on the adsorption/desorption of a particular substance are the effective cation exchange capacity (ECEC), the content of amorphous iron and aluminium oxides, particularly for volcanic and tropical soils (4), as well as the specific surface (49).

8. The test is designed to evaluate the adsorption of a chemical on different soil types with a varying range of organic carbon content, clay content and soil texture, and pH. It comprises three tiers:

Tier1: Preliminary study in order to determine:

- the soil/solution ratio;
- the equilibration time for adsorption and the amount of test substance adsorbed at equilibrium;
- the adsorption of the test substance on the surfaces of the test vessels and the stability of the test substance during the test period.

Tier 2: Screening test: the adsorption is studied in five different soil types by means of adsorption kinetics at a single concentration and determination of distribution coefficients K_d and K_{oc}.

Tier 3: Determination of Freundlich adsorption isotherms to determine the influence of concentration on the extent of adsorption on soils.
Study of desorption by means of desorption kinetics/Freundlich desorption isotherms (Annex 1).

DEFINITIONS AND UNITS

9. Definitions and units are set out in the Data and Reporting section and Annex 2. The weight of soil samples as mentioned in the equations of the Guideline refer to the oven dry weight.

PRINCIPLE OF THE METHOD

10. Known volumes of solutions of the test substance, non-labelled or radiolabelled, at known concentrations in 0.01 M $CaCl_2$ are added to soil samples of known dry weight which have been pre-equilibrated in 0.01 M $CaCl_2$. The mixture is agitated for an appropriate time. The soil suspensions are then separated by centrifugation and, if so wished, filtration and the aqueous phase is analysed. The amount of test substance adsorbed on the soil sample is calculated as the difference between the amount of test substance initially present in solution and the amount remaining at the end of the experiment (indirect method).

11. As an option, the amount of the test substance adsorbed can also be directly determined by analysis of soil (direct method). Although this makes the analytical procedure more tedious, involving stepwise soil extraction with an appropriate solvent, it is recommended in cases where the difference in the solution concentration of the substance cannot be accurately determined. Examples of such cases are: adsorption of

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the test substance on surfaces of the test vessels, instability of the test substance in the time scale of the experiment, weak adsorption giving only small concentration change in the solution; and strong adsorption yielding low concentration which cannot be accurately determined. If radiolabelled substance is used, the soil extraction may be avoided by analysis of the soil phase by combustion and liquid scintillation counting. However, liquid scintillation counting is an unspecific technique which cannot differentiate between the test chemical and its transformation products; therefore it should be used only if the test chemical is stable for the duration of the study.

INFORMATION ON THE TEST SUBSTANCE

12. Chemical reagents should be of analytical grade. The use of non-labelled test substances with known composition and preferably at least 95% purity or of radiolabelled test substances with known composition and radio-purity, is recommended. In the case of short half-life tracers, decay corrections should be applied.

13. Before carrying out a test for adsorption-desorption, the following information on the test substance should be available:

(a) solubility in water [OECD Guideline 105];
(b) vapour pressure [OECD Guideline 104] or/and Henry's law constant;
(c) abiotic hydrolysis as a function of pH [OECD Guideline 111];
(d) n-octanol/water partition coefficient [OECD Guidelines 107 and 117];
(e) ready biodegradability [OECD Guideline 301] or aerobic and anaerobic transformation in soil;
(f) pKa of ionisable substances;
(g) direct photolysis in water (i.e. UV-Vis absorption spectrum in water, quantum yield) and photodegradation on soil.

APPLICABILITY OF THE TEST

14. The test is applicable to chemical substances for which an analytical method with sufficient accurancy is available. An important parameter that can influence the reliability of the results, especially when the indirect method is followed (see paragraph 10), is the stability of the test substance in the time scale of the test. Thus, it is a prerequisite to check the stability in a preliminary study; if a transformation in the time scale of the test is observed, it is recommended that the main study be performed by analysing both soil and aqueous phases.

15. Difficulties may arise in conducting this test for test substances with low water solubility (S_w $<10^{-4}$ g l^{-1}), as well as for highly charged substances, due to the fact that the concentration in the aqueous phase cannot be measured analytically with sufficient accuracy. In these cases, additional steps have to be taken. Guidance on how to deal with these problems is given in the relevant sections of this Guideline.

16. When testing volatile substances, care should be taken to avoid losses during the study.

DESCRIPTION OF THE METHOD

Apparatus and chemical reagents

17. Standard laboratory equipment, especially the following:

(a) Tubes or vessels to conduct the experiments. It is important that these tubes or vessels:
- fit directly in the centrifuge apparatus in order to minimise handling and transfer errors;

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- be made of an inert material, which minimises adsorption of the test substance on its surface.

(b) Agitation device: overhead shaker or equivalent equipment; the agitation device should keep the soil in suspension during shaking.

(c) Centrifuge: preferably high-speed, e.g. centrifugation forces > 3000g, temperature controlled, capable of removing particles with a diameter greater than 0.2 µm from aqueous solution. The containers should be capped during agitation and centrifugation to avoid volatility and water losses. To minimise adsorption on them, deactivated caps such as PTFE (Teflon®) lined screw caps should be used.

(d) Optional: filtration device; filters of 0.2 µm porosity, sterile, single use. Special care should be taken in the choice of the filter material, to avoid any losses of the test substance on it; for poorly soluble test substances, organic filter material is not recommended.

(e) Analytical instrumentation, suitable for measuring the concentration of the test chemical.

(f) Laboratory oven, capable of maintaining a temperature of 103 ° to 110 °C.

Characterisation and selection of soils

18. The soils should be characterised by three parameters considered to be largely responsible for the adsorptive capacity: organic carbon, clay content and soil texture, and pH. As already mentioned in paragraph 7, other physico-chemical properties of the soil may have an impact on the adsorption/desorption of a particular substance and should be considered in such cases.

19. The methods used for soil characterisation are very important and can have a significant influence on the results. Therefore, it is recommended that soil pH should be measured in a solution of 0.01 M $CaCl_2$ (that is the solution used in adsorption/desorption testing) according to the corresponding ISO method (ISO 10390-1). It is also recommended that the other relevant soil properties be determined according to standard methods (for example ISO "Handbook of Soil Analysis"); this permits the analyses of sorption data to be based on globally standardised soil parameters. Some guidance for existing standard methods of soil analysis and characterisation is given in references 50-52. For calibration of soil test methods, the use of reference soils might be considered.

20. Guidance for selection of soils for adsorption/desorption experiments is given in Table 1. The seven selected soils cover soil types typically encountered in temperate geographical zones. For ionisable test substances, the selected soils should cover a wide range of pH, in order to evaluate the adsorption of the substance in its ionised and unionised forms. Guidance on how many different soils to use at the various stages of the test is given under the heading "Performance of the test".

21. Other soil types may sometimes be necessary to represent cooler, temperate and tropical regions within the OECD Countries. Therefore, if other soil types are preferred, they should be characterised by the same parameters and should have similar variations in properties to those described in Table 1, even if they do not match the criteria exactly.

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Table 1: Guidance for selection of soil samples for adsorption-desorption

Soil type	pH range (in 0.01 M $CaCl_2$)	Organic carbon content (%)	Clay content (%)	Soil texture*
1	4.5-5.5	1.0-2.0	65-80	clay
2	> 7.5	3.5-5.0	20-40	clay loam
3	5.5-7.0	1.5-3.0	15-25	silt loam
4	4.0-5.5	3.0-4.0	15-30	loam
5	< 4.0-6.0§	< 0.5-1.5§‡	< 10-15§	loamy sand
6	> 7.0	< 0.5-1.0§‡	40-65	clay loam/clay
7	< 4.5	> 10	< 10	sand/loamy sand

* According to FAO and the US system (85).
§ The respective variables should preferably show values within the range given. If, however, difficulties in finding appropriate soil material occur, values below the indicated minimum are accepted.
‡ Soils with less than 0.3% organic carbon may disturb correlation between organic content and adsorption. Thus, it is recommended the use of soils with a minimum organic carbon content of 0.3%.

Collection and storage of soil samples

Collection

22. No specific soil sampling techniques or tools are recommended; the sampling technique depends on the purpose of the study (53)(54)(55)(56)(57)(58).

23. The following should be considered:

(a) detailed information on the history of the field site is necessary; this includes location, vegetation cover, treatments with pesticides and/or fertilisers, biological additions or accidental contamination. Recommendations of the ISO standard on soil sampling (ISO 10381-6) should be followed with respect to the description of the sampling site;

(b) the sampling site has to be exactly defined by UTM (Universal Transversal Mercator-Projection/European Horizontal Datum) or geographical co-ordinates; this could allow re-collection of a particular soil in the future or could help in defining soil under various classification systems used in different countries. Also, only A horizon up to a maximum depth of 20 cm should be collected. Especially for the soil no. 7, if a O_h horizon is present as part of the soil, it should be included in the sampling.

24. The soil samples should be transported using containers and under temperature conditions which guarantee that the initial soil properties are not significantly altered.

Storage

25. The use of soils freshly taken from the field is preferred. Only if this is not possible soil can be stored at ambient temperatures and should be kept air-dried. No limit on the storage time is recommended, but soils stored for more than three years should be re-analysed prior to the use with respect to their organic carbon content, pH and CEC.

Handling and preparation of soil samples for the test

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26. The soils are air-dried at ambient temperature (preferably between 20-25 °C). Disaggregation should be performed with minimal force, so that the original texture of the soil will be changed as little as possible. The soils are sieved to a particle size ≤2 mm; recommendations of the ISO standard on soil sampling (ISO 10381- 6) should be followed with respect to the sieving process. Careful homogenisation is recommended, as this enhances the reproducibility of the results.

27. The moisture content of each soil is determined on three aliquots with heating at 105°C until there is no significant change in weight (approx. 12h). For all calculations the mass of soil refers to oven dry mass, i.e. the weight of soil corrected for moisture content.

Preparation of the test substance for application to soil

28. The test substance is dissolved in a 0.01 M solution of calcium chloride ($CaCl_2$) in distilled or de-ionised water; the $CaCl_2$ solution is used as the aqueous solvent phase to improve centrifugation and minimise cation exchange. The concentration of the stock solution should preferably be three orders of magnitude higher than the detection limit of the analytical method used. This threshold safeguards accurate measurements with respect to the methodology followed in this Guideline (paragraphs 52-58); additionally, the stock solution concentration should be below water solubility of the test substance.

29. The stock solution should preferably be prepared just before application to soil samples and should be kept closed in the dark at 4°C. The storage time depends on the stability of the test substance and its concentration in the solution.

30. Only for poorly soluble substances ($S_w < 10^{-4}$ g l^{-1}), an appropriate solubilising agent may be needed when it is difficult to dissolve the test substance. This solubilising agent: (a) should be miscible with water such as methanol or acetonitrile; (b) its concentration should not exceed 1% of the total volume of the stock solution and should constitute less than that in the solution of the test substance which will come in contact with the soil (preferably less than 0.1%); and (c) should not be a surfactant or undergo solvolytic reactions with the test chemical. The use of a solubilising agent should be stipulated and justified in the reporting of the data.

31. Another alternative for poorly soluble substances is to add the test substance to the test system by spiking: the test substance is dissolved in an organic solvent, an aliquot of which is added to the system of soil and 0.01 M solution of $CaCl_2$ in distilled or de-ionised water. The content of organic solvent in the aqueous phase should be kept as low as possible, normally not exceeding 0.1%. However, the experimenter should have in mind that spiking from an organic solution may suffer from volume unreproducibility. Consequently, an additional error may be introduced as the test substance and co-solvent concentration would not be exactly the same in all tests.

PREREQUISITES FOR PERFORMING THE ADSORPTION/DESORPTION TEST

The analytical method

32. The key parameters that can influence the accurancy of sorption measurements include the accuracy of the analytical method in analysis of both the solution and adsorbed phases, the stability and purity of the test substance, the attainment of sorption equilibrium, the magnitude of the solution concentration change, the soil/solution ratio and changes in the soil structure during the equilibration process (35, 59-62). Some examples bearing upon the accuracy issues are given in Annex 3.33.

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The reliability of the analytical method used must be checked at the concentration range which is likely to occur during the test. The experimenter should feel free to develop an appropriate method with appropriate accuracy, precision, reproducibility, detection limits and recovery. Some guidance on how to perform such a test is given by the experiment below.

34. An appropriate volume of 0.01 M $CaCl_2$, e.g. 100 cm^3, is agitated during 4 h with a weight of soil, e.g. 20 g, of high adsorbability, i.e. with high organic carbon and clay content; these weights and volumes may vary depending on analytical needs, but a soil/solution ratio of 1:5 is a convenient starting point. The mixture is centrifuged and the aqueous phase may be filtrated. A certain volume of the test substance stock solution is added to the latter to reach a nominal concentration within the concentration range which is likely to occur during the test. This volume should not exceed 10% of the final volume of the aqueous phase, in order to change as little as possible the nature of the pre-equilibration solution. The solution is analysed.

35. One blank run consisting of the system soil + $CaCl_2$ solution (without test substance) must be included, in order to check for artifacts in the analytical method and for matrix effects caused by the soil.

36. The analytical methods which can be used for sorption measurements include gas-liquid chromatography (GLC), high-performance liquid chromatography (HPLC), spectrometry (e.g. GC/mass spectrometry, HPLC/mass spectrometry) and liquid scintillation counting (for radiolabelled substances). Independent of the analytical method used, it is considered suitable if the recoveries are between 90% and 110% of the nominal value. In order to allow for detection and evaluation after partitioning has taken place, the detection limits of the analytical method should be at least two orders of magnitude below the nominal concentration.

37. The characteristics and detection limits of the analytical method available for carrying out adsorption studies play an important role in defining the test conditions and the whole experimental performance of the test. This Guideline follows a general experimental path and provides recommendations and guidance for alternative solutions where the analytical method and laboratory facilities may impose limitations.

The selection of optimal soil/solution ratios

38. Selection of appropriate soil to solution ratios for sorption studies depends on the distribution coefficient K_d and the relative degree of adsorption desired. The change of the substance concentration in the solution determines the statistical accuracy of the measurement based on the form of adsorption equation and the limit of the analytical methodology, in detecting the concentration of the chemical in solution. Therefore, in general practice it is useful to settle on a few fixed ratios, for which the percentage adsorbed is above 20%, and preferably >50% (62), while care should be taken to keep the test substance concentration in the aqueous phase high enough to be measured accurately. This is particularly important in the case of high adsorption percentages.

39. With respect to the above remarks, a convenient approach to selecting the appropriate soil/water ratios, is based on an estimate of the K_d value either by preliminary studies or by established estimation techniques (Annex 4). Selection of an appropriate ratio can then be made based on a plot of soil/solution ratio versus K_d for fixed percentages of adsorption (Fig.1). In this plot it is assumed that the adsorption equation is linear[1]. The applicable relationship is obtained by rearranging equation (4) of the K_d in the form of equation (1):

[1] $C_s^{ads}(eq) = K_d \cdot C_{aq}^{ads}(eq)$

$$\frac{V_0}{m_{soil}} = \left(\frac{m_0}{m_s^{ads}(eq)} - 1\right) K_d \qquad (1)$$

or in its logarithmic form assuming that $R = m_{soil}/V_0$ and $A_{eq}\%/100 = \frac{m_s^{ads}(eq)}{m_0}$:

$$\log R = - \log K_d + \log \left[\frac{(A_{eq}\%/100)}{(1-A_{eq}\%/100)}\right] \qquad (2)$$

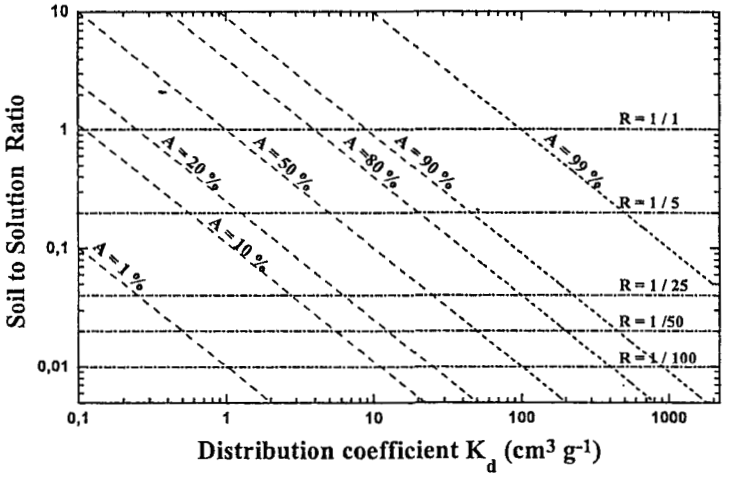

Fig. 1 Relationship between soil to solution ratios and K_d at various percentages of adsorbed test substance

40. Fig. 1 shows soil/solution ratios required as a function of K_d for different levels of adsorption. For example, with a soil/solution ratio of 1:5 and a K_d of 20, approximately 80% adsorption would occur. To obtain 50% adsorption for the same K_d, a 1:25 ratio must be used. This approach to selecting the appropriate soil/solution ratios gives the investigator the flexibility to meet experimental needs.

41. Areas which are more difficult to deal with are those where the chemical is very slightly or highly adsorbed. Where low adsorption occurs, a 1:1 soil/solution ratio is recommended, although for some very organic soil types smaller ratios may be necessary to obtain a slurry. In any case, care must be taken with the analytical methodology to measure small changes in solution concentration; otherwise the adsorption measurement will be inaccurate. On the other hand, at very high distribution coefficients K_d, one can go up to a 1:100 soil/solution ratio in order to leave a significant amount of chemical in solution. However, care must be taken to ensure good mixing, and adequate time must be allowed for the system to equilibrate. An alternative approach to deal with these extreme cases when adequate analytical methodology is missing, is to predict the K_d value applying estimation techniques based, for example, on P_{ow} values (Annex 4). This could be useful especially for low adsorbed/polar chemicals with $P_{ow} < 20$ and for lipophilic/highly sorptive chemicals with $P_{ow} > 10^4$.

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PERFORMANCE OF THE TEST

Test conditions

42. All experiments are done at laboratory ambient temperature and, if possible, at a constant temperature between 20 °C and 25 °C.

43. Centrifugation conditions should allow the removal of particles larger than 0.2 µm from the solution. This value triggers the smallest sized particle that is considered as a solid particle, and is the limit between solid and colloid particles. Guidance on how to determine the centrifugation conditions is given in Annex 5.

44. If the centrifugation facilities cannot guarantee the removal of particles larger than 0.2 µm, a combination of centrifugation and filtration with 0.2 µm filters could be used. These filters should be made of a suitable inert material to avoid any losses of the test substance on them. In any case, it should be proven that no losses of the test substance occur during filtration.

Tier 1- Preliminary study

45. The purpose of conducting a preliminary study has already been given in paragraph 8 in the Scope section. Guidance for setting up such a test is given with the experiment suggested below.

Selection of optimal soil/solution ratios

46. Two soil types and three soil/solution ratios (six experiments) are used. One soil type has high organic carbon and low clay content, and the other low organic carbon and high clay content. The following soil to solution ratios are suggested. However, the absolute mass of soil and volume of aqueous solution corresponding to these ratios can be different with respect to laboratory facilities:

- 50 g soil and 50 cm^3 aqueous solution of the test substance (ratio 1/1);
- 10 g soil and 50 cm^3 aqueous solution of the test substance (ratio 1/5);
- 2 g soil and 50 cm^3 aqueous solution of the test substance (ratio 1/25).

47. The minimum amount of soil on which the experiment can be carried out depends on the laboratory facilities and the performance of analytical method used. However, it is recommended to use at least 1 g, and preferably 2 g, in order to obtain reliable results from the test.

48. One control sample with only the test substance in 0.01 M $CaCl_2$ solution (no soil) is subjected to precisely the same steps as the test systems, in order to check the stability of the test substance in $CaCl_2$ solution and its possible adsorption on the surfaces of the test vessels.

49. A blank run per soil with the same amount of soil and total volume of 50 cm^3 0.01 M $CaCl_2$ solution (without test substance) is subjected to the same test procedure. This serves as a background control during the analysis to detect interfering compounds or contaminated soils.

50. All the experiments, including controls and blanks, should be performed at least in duplicate. The total number of the samples which should be prepared for the study can be calculated with respect to the methodology which will be followed (paragraphs 57-58).

51. Methods for the preliminary study and the main study are generally the same, exceptions are mentioned where relevant.

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52. The air-dried soil samples are equilibrated by shaking with a minimum volume of 45 cm^3 of 0.01 M $CaCl_2$ overnight (12 h) before the day of the experiment. Afterwards, a certain volume of the stock solution of the test substance is added in order to adjust the final volume to 50 cm^3. This volume of the stock solution added: (a) should not exceed 10% of the final 50 cm^3 volume of the aqueous phase in order to change as little as possible the nature of the pre-equilibration solution; and (b) should preferably result in an initial concentration of the test substance being in contact with the soil (C_0) at least two orders of magnitude higher than the detection limit of the analytical method; this threshold safeguards the ability to perform accurate measurements even when strong adsorption occurs (> 90%) and to determine later the adsorption isotherms. It is also recommended, if possible, that the initial substance concentration (C_0) not exceed half of its solubility limit.

53. An example of how to calculate the concentration of the stock solution (C_s) is given below. A detection limit of 0.01 µg cm^{-3} and 90% adsorption are assumed; thus, the initial concentration of the test substance in contact with the soil should preferably be 1 µg cm^{-3} (two orders of magnitude higher than the detection limit). Supposing that the maximum recommended volume of the stock solution is added, i.e. 5 to 45 cm^3 0.01 M $CaCl_2$ equilibration solution (= 10% of the stock solution to 50 cm^3 total volume of aqueous phase), the concentration of the stock solution should be 10 µg cm^{-3}; this is three orders of magnitude higher than the detection limit of the analytical method.

54. The pH of the aqueous phase should be measured before and after contact with the soil since it plays an important role in the whole adsorption process, especially for ionisable substances.

55. The mixture is shaken until adsorption equilibrium is reached. The equilibrium time in soils is highly variable, depending on the chemical and the soil; a period of 24 h is generally sufficient (77). In the preliminary study, samples may be collected sequentially over a 48 h period of mixing (for example at 4, 8, 24, 48 h). However, times of analysis should be considered with flexibility with respect to the work schedule of the laboratory.

56. There are two options for the analysis of the test substance in the aqueous solution: (a) the parallel method and (b) the serial method. It should be stressed that, although the parallel method is experimentally more tedious, the mathematical treatment of the results is simpler (Annex 6). However, the choice of the methodology to be followed, is left to the experimenter who will need to consider the available laboratory facilities and resources.

57. (a) Parallel method: Samples with the same soil/solution ratio are prepared, as many as the time intervals at which it is desired to study the adsorption kinetics. After centrifugation and if so wished filtration, the aqueous phase of the first tube is recovered as completely as possible and is measured after, for example, 4 h, that of the second tube after 8 h, that of the third after 24 h, etc.

58. (b) Serial method: Only a duplicate sample is prepared for each soil/solution ratio. At defined time intervals the mixture is centrifuged to separate the phases. A small aliquot of the aqueous phase is immediately analysed for the test substance; then the experiment continues with the original mixture. If filtration is applied after centrifugation, the laboratory should have facilities to handle filtration of small aqueous aliquots. It is recommended that the total volume of the aliquots taken not exceed 1% of the total volume of the solution, in order not to change significantly the soil/solution ratio and to decrease the mass of solute available for adsorption during the test.

59. The percentage adsorption A_{t_i} is calculated at each time point (t_i) on the basis of the nominal initial concentration and the measured concentration at the sampling time(t_i), corrected for the value of the blank. Plots of the A_{t_i} versus time (Fig. 1, Annex 6) are generated in order to estimate the achievement of

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equilibrium plateau[2]. The K_d value at equilibrium is also calculated. Based on this K_d value, appropriate soil/solution ratios are selected from Fig.1, so that the percentage adsorption reaches above 20% and preferably >50% (61). All the applicable equations and principles of plotting are given in the Data and Reporting section and in Annex 6.

Determination of adsorption equilibration time and of the amount of test substance adsorbed at equilibrium

60. As already mentioned in paragraph 59, plots of A_{t_i} or C_{aq}^{ads} versus time permit estimation of the achievement of the adsorption equilibrium and the amount of test substance adsorbed at equilibrium. Figs. 1 and 2 in Annex 6 show examples of such plots. Equilibration time is the time the system needs to reach a plateau.

61. If, with a particular soil, no plateau but a steady increase is found, this may be due to complicating factors such as biodegradation or slow diffusion. Biodegradation can be shown by repeating the experiment with a sterilised sample of the soil. If no plateau is achieved even in this case, the experimenter should search for other phenomena that could be involved in his specific studies; this could be done with appropriate modifications of the experiment conditions (temperature, shaking times, soil/solution ratios). It is left to the experimenter to decide whether to continue the test procedure in spite of a possible failure to achieve an equilibrium.

Adsorption on the surface of the test vessel and stability of the test substance

62. Some information on the adsorption of the test substance on the surface of test vessels, as well as its stability, can be derived by analysing the control samples. If a depletion more than the standard error of the analytical method is observed, abiotic degradation and/or adsorption on the surface of the test vessel could be involved. Distinction between these two phenomena could be achieved by thoroughly washing the walls of the vessel with a known volume of an appropriate solvent and subjecting the wash solution to analysis for the test substance. If no adsorption on the surface of the test vessels is observed, the depletion demonstrates abiotic unstability of the test substance. If adsorption is found, changing the material of the test vessels is necessary. However, data on the adsorption on the surface of the test vessels gained from this experiment cannot be directly extrapolated to soil/solution experiment. The presence of soil will generally reduce this adsorption.

63. Additional information on the stability of the test substance can be derived by determination of the parental mass balance over time. This means that the aqueous phase and extracts of the soil and test vessel walls are analysed for the test substance. The difference between the mass of the test chemical added and the sum of the test chemical masses in the aqueous phase and extracts of the soil and test-vessel walls is equal to the mass degraded and/or volatilized and/or not extracted. In order to perform a mass balance determination, the adsorption equilibrium should have been reached within the time period of the experiment.

64. The mass balance is carried out on both soils and for one soil/solution ratio per soil that gives a depletion above 20% and preferably >50% at equilibrium. When the ratio-finding experiment is completed with the analysis of the last sample of the aqueous phase after 48 h, the phases are separated by centrifugation and, if so wished, filtration. The aqueous phase is recovered as much as possible, and a suitable extraction solvent (extraction coefficient of at least 95%) is added to the soil to extract the test substance. At least two successive extractions are recommended. The amount of test substance in the soil and test vessel extracts is determined and the mass balance is calculated (equation 10, Data and Reporting section). If it is less than

[2] Plots of the concentration of the test substance in the aqueous phase (C_{aq}^{ads}) versus time could also be used to estimate the achievement of the equilibrium plateau (see Fig. 2 in Annex 6).

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90%, the test substance is considered to be unstable in the time scale of the test. However, studies could still be continued, taking into account the unstability of the test substance; in this case it is recommended to analyse both phases in the main study.

Tier 2 - Adsorption kinetics at one concentration of the test substance

65. Five soils are used, selected using the guidance given in Table 1. There is an advantage to including some or all of the soils used in the preliminary study, if appropriate, among these five soils. In this case, Tier 2 has not to be repeated for the soils used in preliminary study.

66. The equilibration time, the soil/solution ratio, the weight of the soil sample, the volume of the aqueous phase in contact with the soil and the concentration of the test substance in the solution are chosen based on the preliminary study results. Analysis should preferably be done approximately after 2, 4, 6, 8 (possibly also 10) and 24 h contact time; the agitation time may be extended to a maximum of 48 h in case a chemical requires longer equilibration time with respect to ratio-finding results. However, times of analysis could be considered with flexibility.

67. Each experiment (one soil and one solution) is done at least in duplicate to allow estimation of the variance of the results. In every experiment one blank is run. It consists of the soil and 0.01 M $CaCl_2$ solution, without test substance, and of weight and volume, respectively, identical to those of the experiment. A control sample with only the test substance in 0.01 M $CaCl_2$ solution (without soil) is subjected to the same test procedure, serving to safeguard against the unexpected. The test runs as described in paragraphs 52-59.

68. The percentage adsorption is calculated at each time point A_{t_i} and/or time interval $A_{\Delta t_i}$ (according to the needs of the study) and is plotted versus time. The distribution coefficient K_d at equilibrium, as well as the organic carbon normalized adsorption coefficient K_{oc} (for non-polar organic chemicals), are also calculated.

Results and discussion of the adsorption kinetics test

69. The linear K_d value is generally accurate to describe sorptive behaviour in soil (35)(78) and represents an expression of inherent mobility of chemicals in soil. For example, in general chemicals with $K_d \leq 1$ cm^3 g^{-1} are considered to be qualitatively mobile. Similarly, a mobility classification scheme based on K_{oc} values has been developed by McCall *et al.* (16). Additionally, leaching classification schemes exist based on a relationship between K_{oc} and DT-50[3] (32)(79).

70. Also, according to error analysis studies (61), K_d values below 0.3 cm^3 g^{-1} cannot be estimated accurately from a decrease in concentration in the aqueous phase, even when the most favourable (from point of view of accurancy) soil/solution ratio is applied, i.e. 1:1. In this case analysis of both phases, soil and solution, is recommended.

71. With respect to the above remarks, it is recommended that the study of the adsorptive behaviour of a chemical in soil and its potential mobility be continued by determining Freundlich adsorption isotherms for these systems, for which an accurate determination of K_d is possible with the experimental protocol followed in this Guideline. Accurate determination is possible if the value which results by multiplying the K_d with the soil/solution ratio is > 0.3, when measurements are based on concentration decrease in the aqueous phase (indirect method), or > 0.1, when both phases are analysed (direct method) (61).

Tier 3 - Adsorption isotherms and desorption kinetics/desorption isotherms

[3] DT-50: degradation time for 50% of the test substance.

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Adsorption isotherms

72. Five test substance concentrations are used, covering preferably two orders of magnitude; in the choice of these concentrations the water solubility and the resulting aqueous equilibrium concentrations should be taken into account. The same soil/solution ratio per soil should be kept along the study. The adsorption test is performed as described in paragraphs 47-58, with the only difference that the aqueous phase is analysed only once at the time necessary to reach equilibrium as determined before in Tier 2. The equilibrium concentrations in the solution are determined and the amount adsorbed is calculated from the depletion of the test substance in the solution or with the direct method. The adsorbed mass per unit mass of soil is plotted as a function of the equilibrium concentration of the test substance (see Data and Reporting).

Results from the adsorption isotherms experiment

73. Among the mathematical adsorption models proposed so far, the Freundlich isotherm is the one most frequently used to describe adsorption processes. More detailed information on the interpretation and importance of adsorption models is provided in the references (41)(45)(80)(81)(82).

Note: It should be mentioned that a comparison of K_F (Freundlich adsorption coefficient) values for different substances is only possible if these K_F values are expressed in the same units (83).

Desorption kinetics

74. The purpose of this experiment is to investigate whether a chemical is reversibly or irreversibly adsorbed on a soil. This information is important, since the desorption process also plays an important role in the behaviour of a chemical in field soil. Moreover, desorption data are useful inputs in the computer modelling of leaching and dissolved run-off simulation. If a desorption study is desired, it is recommended that the study described below be carried out on each system for which an accurate determination of K_d in the preceding adsorption kinetics experiment was possible.

75. Likewise with the adsorption kinetics study, there are two options to proceed with the desorption kinetics experiment: (a) the parallel method and (b) the serial method. The choice of the methodology to be followed, is left to the experimenter who will need to consider the available laboratory facilities and resourses, keeping in mind the remarks made in paragraph 56.

76. (a) Parallel method: For each soil which is chosen to proceed with the desorption study, samples with the same soil/solution ratio are prepared, as many as the time intervals at which it is desired to study the desorption kinetics. Preferably, the same time intervals as in the adsorption kinetics experiment should be used; however, the total time may be extended as appropriate in order the system to reach desorption equilibrium. In every experiment (one soil, one solution) one blank is run. It consists of the soil and 0.01 M $CaCl_2$ solution, without test substance, and of weight and volume, respectively, identical to those of the experiment. As a control sample the test substance in 0.01 M $CaCl_2$ solution (without soil) is subjected to the same test procedure. All the mixtures of the soil with the solution is agitating until to reach adsorption equilibrium (as determined before in Tier 2). Then, the phases are separated by centrifugation and the aqueous phases are removed as much as possible. The volume of solution removed is replaced by an equal volume of 0.01 M $CaCl_2$ without test substance and the new mixtures are agitated again. The aqueous phase of the first tube is recovered as completely as possible and is measured after, for example, 2 h, that of the second tube after 4 h, that of the third after 6 h, etc until the desorption equilibrium is reached.

77. (b) Serial method: After the adsorption kinetics experiment, the mixture is centrifuged and the aqueous phase is removed as much as possible. The volume of solution removed is replaced by an equal volume of 0.01 M $CaCl_2$ without test substance. The new mixture is agitated until the desorption equilibrium

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is reached. During this time period, at defined time intervals, the mixture is centrifuged to separate the phases. A small aliquot of the aqueous phase is immediately analysed for the test substance; then, the experiment continues with the original mixture. The volume of each individual aliquot should be less than 1% of the total volume. The same quantity of fresh 0.01 M $CaCl_2$ solution is added to the mixture to maintain the soil to solution ratio, and the agitation continues until the next time interval.

78. The percentage desorption is calculated at each time point D_{t_i} and/or time interval $D_{\Delta t_i}$ (according to the needs of the study) and is plotted versus time. The desorption coefficient of K_{des} at equilibrium is also calculated. All applicable equations are given in Data and Reporting Section and Annex 6.

Results from desorption kinetics experiment

79. Common plots of the percentage desorption D_{t_i} and adsorption A_{t_i} versus time, allow estimation of the reversibility of the adsorption process. If the desorption equilibrium is attained even within twice the time of the adsorption equilibrium, and the total desorption is more than 75% of the amount adsorbed , the adsorption is considered to be reversible.

Desorption isotherms

80. Freundlich desorption isotherms are determined on the soils used in the adsorption isotherms experiment. The desorption test is performed as described in the section "Desorption kinetics" (paragraph 76 or 77), with the only difference that the aqueous phase is analysed only once, at desorption equilibrium. The amount of the test substance desorbed is calculated. The content of test substance remaining adsorbed on soil at desorption equilibrium is plotted as a function of the equilibrium concentration of the test substance in solution (see Data and Reporting and Annex 6).

DATA AND REPORTING

81. The analytical data are presented in tabular form (see Annex 7). Individual measurements and averages calculated are given. Graphical representations of adsorption isotherms are provided. The calculations are made as described in paragraphs 83-86.

82. For the purpose of the test, it is considered that the weight of 1 cm^3 of aqueous solution is 1g. The soil/solution ratio may be expressed in units of w/w or w/vol with the same figure.

Adsorption

83. The adsorption A_{t_i} is defined as the percentage of substance adsorbed on the soil related to the quantity present at the beginning of the test, under the test conditions. If the test substance is stable and does not adsorb significantly to the container wall, A_{t_i} is calculated at each time point t_i, according to the equation:

$$A_{t_i} = \frac{m_s^{ads}(t_i) \cdot 100}{m_0} \quad (\%) \qquad (3)$$

where:

A_{t_i} = adsorption percentage at the time point t_i (%);

$m_s^{ads}(t_i)$ = mass of test substance adsorbed on the soil at the time t_i (µg);

m_0 = mass of test substance in the test tube, at the beginning of the test (µg).

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Detailed information how to calculate the percentage of adsorption A_{t_1} for the parallel and serial methods is given in Annex 6.

84. The distribution coefficient K_d is the ratio between the content of the substance in the soil phase and the mass concentration of the substance in the aqueous solution, under the test conditions, when adsorption equilibrium is reached.

$$K_d = \frac{C_s^{ads}(eq)}{C_{aq}^{ads}(eq)} = \frac{m_s^{ads}(eq)}{m_{aq}^{ads}(eq)} \cdot \frac{V_0}{m_{soil}} \quad (cm^3 g^{-1}) \qquad (4)$$

where:

$C_s^{ads}(eq)$ = content of the substance adsorbed on the soil at adsorption equilibrium ($\mu g\ g^{-1}$);

$C_{aq}^{ads}(eq)$ = mass concentration of the substance in the aqueous phase at adsorption equilibrium ($\mu g\ cm^{-3}$); this concentration is analytically determined taking into account the values given by the blanks.

$m_s^{ads}(eq)$ = mass of the test substance adsorbed on the soil at adsorption equilibrium (μg);

$m_{aq}^{ads}(eq)$ = mass of the test substance in the solution at adsorption equilibrium (μg);

m_{soil} = quantity of the soil phase, expressed in dry mass of soil (g);

V_0 = initial volume of the aqueous phase in contact with the soil (cm^3).

85. The relation between A_{eq} and K_d is given by:

$$K_d = \frac{A_{eq}}{100 - A_{eq}} \cdot \frac{V_0}{m_{soil}} \quad (cm^3 g^{-1}) \qquad (5)$$

where:

A_{eq} = percentage of adsorption at adsorption equilibrium, %.

86. The organic carbon normalized adsorption coefficient K_{oc} relates the distribution coefficient K_d to the content of organic carbon of the soil sample:

$$K_{oc} = K_d \cdot \frac{100}{\%oc} \quad (cm^3 g^{-1}) \qquad (6)$$

where:

%oc = percentage of organic carbon in the soil sample ($g\ g^{-1}$).

K_{oc} coefficient represents a single value which characterizes the partitioning mainly of non-polar organic chemicals between the organic carbon in the soil or sediment and water. The adsorption of these compounds is correlated with the organic content of the sorbing solid (7); thus, K_{oc} values depend on the specific characteristics of the humic fractions which differ considerably in sorption capacity, due to differences in origin, genesis, etc.

Adsorption isotherms

87. The Freundlich adsorption isotherms equation relates the amount of the test substance adsorbed to the concentration of the test substance in solution at equilibrium (equation 8).

The data are treated as under "Adsorption" and, for each test tube, the content of the test substance adsorbed on the soil after the adsorption test ($C_s^{ads}(eq)$, elsewhere denoted as x/m) is calculated. It is assumed that equilibrium has been attained and that $C_s^{ads}(eq)$ represents the equilibrium value:

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$$C_s^{ads}(eq) = \frac{m_s^{ads}(eq)}{m_{soil}} = \frac{\left[C_0 - C_{aq}^{ads}(eq)\right] \cdot V_0}{m_{soil}} (\mu g\, g^{-1}) \quad (7)$$

The Freundlich adsorption equation is shown in (8):

$$C_s^{ads}(eq) = K_F^{ads} \cdot C_{aq}^{ads}(eq)^{1/n} \quad (\mu g\, g^{-1}) \quad (8)$$

or in the linear form:

$$\log C_s^{ads}(eq) = \log K_F^{ads} + 1/n \cdot \log C_{aq}^{ads}(eq) \quad (9)$$

where:

K_F^{ads} = Freudlich adsorption coefficient; its dimension is $cm^3\, g^{-1}$ only if $1/n = 1$; in all other cases, the slope 1/n is introduced in the dimension of K_F^{ads} ($\mu g^{1-1/n} (cm^3)^{1/n} g^{-1}$);

n = regression constant; 1/n generally ranges between 0.7-1.0, indicating that sorption data is frequently slightly nonlinear.

Equations (8) and (9) are plotted and the values of K_F^{ads} and 1/n are calculated by regression analysis using the equation 9. The correlation coefficient r^2 of the log equation is also calculated. An example of such plots is given in Fig.2.

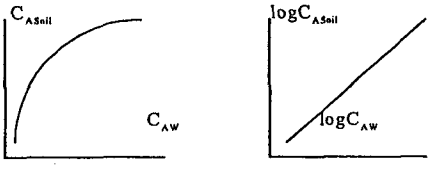

Fig. 2 Freundlich Adsorption Plot, normal and linearized

Mass balance

88. The mass balance (MB) is defined as the percentage of substance which can be analytically recovered after an adsorption test versus the nominal amount of substance at the beginning of the test.

89. The treatment of data will differ if the solvent is completely miscible with water. In the case of water-miscible solvent, the treatment of data described under "Desorption" may be applied to determine the amount of substance recovered by solvent extraction. If the solvent is less miscible with water, the determination of the amount recovered has to be made.

90. The mass balance MB for the adsorption is calculated as follows; it is assumed that the term (m_E) corresponds to the sum of the test chemical masses extracted from the soil and surface of the test vessel with an organic solvent:

$$MB = \frac{(V_{rec} \cdot C_{aq}^{ads}(eq) + m_E) \cdot 100}{V_0 \cdot C_0} \quad (\%) \quad (10)$$

where:

MB = mass balance (%);

m_E = total mass of test substance extracted from the soil and walls of the test vessel in two steps (µg);

C_0 = initial mass concentration of the test solution in contact with the soil ($\mu g\, cm^{-3}$);

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V_{rec} = volume of the supernatant recovered after the adsorption equilibrium (cm^3).

Desorption

91. The desorption is defined as the percentage of the test substance which is desorbed, related to the quantity of substance previously adsorbed, under the test conditions:

$$D_{t_i} = \frac{m_{aq}^{des}(t_i)}{m_s^{ads}(eq)} \cdot 100 \quad (\%) \qquad (11)$$

where:

D_{t_i} = desorption percentage at a time point t_i (%);

$m_{aq}^{des}(t_i)$ = mass of the test substance desorbed from soil at a time point t_i (µg);

$m_s^{ads}(eq)$ = mass of the test substance adsorbed on soil at adsorption equilibrium (µg).

Detailed information on how to calculate the percentage of desorption D_{t_i} for the parallel and serial methods is given in Annex 6.

92. The apparent desorption coefficient (K_{des}) is, under the test conditions, the ratio between the content of the substance remaining in the soil phase and the mass concentration of the desorbed substance in the aqueous solution, when desorption equilibrium is reached:

$$K_{des} = \frac{m_s^{ads}(eq) - m_{aq}^{des}(eq)}{m_{aq}^{des}(eq)} \cdot \frac{V_T}{m_{soil}} \quad (cm^3\ g^{-1}) \qquad (12)$$

where:

K_{des} = desorption coefficient ($cm^3\ g^{-1}$);

$m_{aq}^{des}(eq)$ = total mass of the test substance desorbed from soil at desorption equilibrium (µg);

V_T = total volume of the aqueous phase in contact with the soil during the desorption kinetics test (cm^3).

Guidance for calculating the $m_{aq}^{des}(eq)$ is given in Annex 6 under the heading "Desorption".

Remark

If the adsorption test which was preceded, was performed with the parallel method the volume V_T in the equation (12) is considered to be equal to V_o.

Desorption isotherms

93. The Freundlich desorption isotherms equation relates the content of the test substance remaining adsorbed on the soil to the concentration of the test substance in solution at desorption equilibrium (equation 16).

94. For each test tube, the content of the substance remaining adsorbed on the soil at desorption equilibrium is calculated as follows:

$$C_s^{des}(eq) = \frac{m_s^{ads}(eq) - m_{aq}^{des}(eq)}{m_{soil}} \quad (\mu g\ g^{-1}) \qquad (13)$$

$m_{aq}^{des}(eq)$ is defined as:

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$$m_{aq}^{des}(eq) = m_{m}^{des}(eq) \cdot \frac{V_0}{V_r^F} - m_{aq}^{A} \quad (\mu g) \tag{14}$$

where:

$C_s^{des}(eq)$ = content of the test substance remaining adsorbed on the soil at desorption equilibrium ($\mu g\ g^{-1}$);

$m_m^{des}(eq)$ = mass of substance determined analytically in the aqueous phase at desorption equilibrium (μg);

m_{aq}^{A} = mass of the test substance left over from the adsorption equilibrium due to incomplete volume replacement (μg);

$m_{aq}^{ads}(eq)$ = mass of the substance in the solution at adsorption equilibrium (μg);

$$m_{aq}^{A} = m_{aq}^{ads}(eq) \cdot \left(\frac{V_0 - V_R}{V_0} \right) \tag{15}$$

V_r^F = volume of the solution taken from the tube for the measurement of the test substance, at desorption equilibrium (cm^3);

V_R = volume of the supernatant removed from the tube after the attainement of adsorption equilibrium and replaced by the same volume of a 0.01 M $CaCl_2$ solution (cm^3);

The Freundlich desorption equation is shown in (16):

$$C_s^{des}(eq) = K_F^{des} \cdot C_{aq}^{des}(eq)^{1/n} \quad (\mu g\ g^{-1}) \tag{16}$$

or in the linear form:

$$\log C_s^{des}(eq) = \log K_F^{des} + 1/n \cdot \log C_{aq}^{des}(eq) \tag{17}$$

where:

K_F^{des} = Freundlich desorption coefficient;

n = regression constant;

$C_{aq}^{des}(eq)$ = mass concentration of the substance in the aqueous phase at desorption equilibrium ($\mu g\ cm^{-3}$).

The equations (16) and (17) can be plotted and the value of K_F^{des} and 1/n are calculated by regression analysis using the equation 17.

Remark:

If the Freundlich adsorption or desorption exponent 1/n is equal to 1, the Freundlich adsorption or desorption binding constant (K_F^{ads} and K_F^{des}) will be equal to the adsorption or desorption equilibrium constants (K_d and K_{des}) respectively, and plots of C_s vs C_{aq} will be linear. If the exponents are not equal to 1, plots of C_s vs C_{aq} will be nonlinear and the adsorption and desorption constants will vary along the isotherms.

TEST REPORT

95. The test report should include the following information:

- Complete identification of the soil samples used including:
  - geographical reference of the site (latitude, longitude);
  - date of sampling;
  - use pattern (e.g. agricultural soil, forest, etc.);
  - depth of sampling;

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- sand/silt/clay content;
- pH values (in 0.01 M $CaCl_2$);
- organic carbon content;
- organic matter content;
- nitrogen content;
- C/N ratio;
- Cation Exchange Capacity (mmol/kg);
- all information relating to the collection and storage of soil samples;
- where appropriate, all relevant information for the interpretation of the adsorption - desorption of the test substance;
- reference of the methods used for the determination of each parameter.

- information on the test substance as appropriate;
- temperature of the experiments;
- centrifugation conditions;
- analytical procedure used to analyse the test substance;
- justification for any use of solubilizing agent for the preparation of the stock solution of the test substance;
- explanations of corrections made in the calculations, if relevant;
- data according to the form sheet (Annex 7) and graphical presentations;
- all information and observations helpful for the interpretation of the test results.

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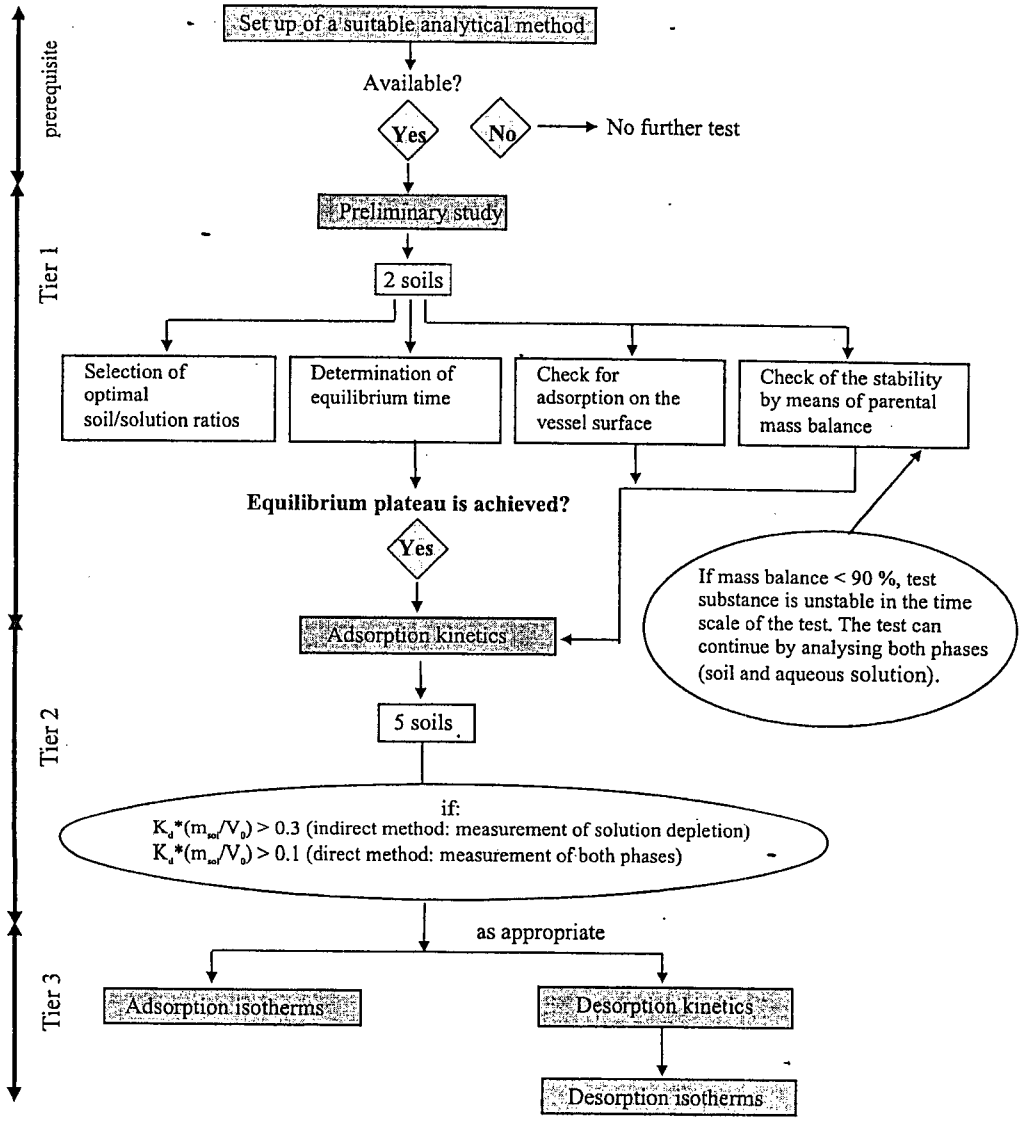
ANNEX 1

TESTING SCHEME



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ANNEX 2

DEFINITIONS AND UNITS

Symbol	Definition	Units
A_{t_i}	adsorption percentage at the time point t_i	%
A_{eq}	adsorption percentage at adsorption equilibrium	%
$m_s^{ads}(t_i)$	mass of the test substance adsorbed on the soil at the time t_i	µg
$m_s^{ads}(\Delta t_i)$	mass of the test substance adsorbed on the soil during the time interval Δt_i	µg
$m_s^{ads}(eq)$	mass of the substance adsorbed on the soil at adsorption equilibrium	µg
m_0	mass of the test substance in the test tube, at the beginning of the adsorption test	µg
$m_m^{ads}(t_i)$	mass of the substance measured in an aliquot (v_a^A) at the time point t_i	µg
$m_{aq}^{ads}(eq)$	mass of the substance in the solution at adsorption equilibrium	µg
m_{soil}	quantity of the soil phase, expressed in dry mass of soil	g
C_{st}	mass concentration of the stock solution of the substance	µg cm^{-3}
C_0	initial mass concentration of the test solution in contact with the soil	µg cm^{-3}
$C_{aq}^{ads}(t_i)$	mass concentration of the substance in the aqueous phase at the time t_i that the analysis is performed	µg cm^{-3}
$C_s^{ads}(eq)$	content of the test substance adsorbed on soil at adsorption equilibrium an equilibrium	µg g^{-1}
$C_{aq}^{ads}(eq)$	mass concentration of the substance in the aqueous phase at adsorption equilibrium	µg cm^{-3}
V_0	initial volume of the aqueous phase in contact with the soil during the adsorption test	cm^3
v_a^A	volume of the aliquot in which the test substance is measured	cm^3
K_d	distribution coefficient for adsorption	$cm^3 g^{-1}$
K_{oc}	organic carbon normalized adsorption coefficient	$cm^3 g^{-1}$
K_{om}	organic matter normalized distribution coefficient	$cm^3 g^{-1}$
K_F^{ads}	Freundlich adsorption coefficient	µg $^{1-1/n}$ $(cm^3)^{1/n} g^{-1}$
1/n	Freundlich exponent	
D_{t_i}	desorption percentage at a point time t_i	%
$D_{\Delta t_i}$	desorption percentage corresponding to a time interval Δt_i	%
K_{des}	apparent desorption coefficient	$cm^3 g^{-1}$

Symbol	Definition	Units
K_F^{des}	Freundlich desorption coefficient	$\mu g^{1-1/n} (cm^3)^{1/n} g^{-1}$
$m_{aq}^{des}(t_i)$	mass of the test substance desorbed from soil at the time t_i	µg
$m_{aq}^{des}(\Delta t_i)$	mass of the test substance desorbed from soil during the time Δt_i	µg
$m_m^{des}(eq)$	mass of substance determined analytically in the aqueous phase at desorption equilibrium	µg
$m_{aq}^{des}(eq$	total mass of test substance desorbed at desorption equilibrium	µg
$m_s^{des}(\Delta t_i)$	mass of the substance remaining adsorbed on the soil after the time interval Δt_i	µg
m_{aq}^{A}	mass of the test substance left over from the adsorption equilibrium due to incomplete volume replacement	µg
$C_s^{des}(eq)$	content of the test substance remaining adsorbed on the soil at desorption equilibrium	$\mu g\ g^{-1}$
$C_{aq}^{des}(eq)$	mass concentration of the substance in the aqueous phase at desorption equilibrium	$\mu g\ cm^{-3}$
V_T	total volume of the aqueous phase in contact with the soil during the desorption kinetics experiment performed with the serial method	cm^3
V_R	volume of the supernatant removed from the tube after the attainement of adsorption equilibrium and replaced by the same volume of a 0.01 M $CaCl_2$ solution	cm^3
v_a^D	volume of the aliquot sampled for analytical purpose from the tume (i), during the desorption kinetics experiment performed with the serial method	cm^3
V_r^i	volume of the solution taken from the tube (i) for the measurement of the test substance, in desorption kinetics experiment (parallel method) .	cm^3
V_r^F	volume of the solution taken from the tube for the measurement of the test substance, at desorption equilibrium	cm^3
MB	mass balance	%
m_g	total mass of test substance extracted from the soil and walls of the test vessel in two steps	µg
V_{rec}	volume of the supernatant recovered after the adsorption equilibrium	cm^3
P_{ow}	octanol/water partition coefficient	
pKa	dissociation constant	
S_w	water solubility	$g\ l^{-1}$

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ANNEX 3

Influence of Accuracy of Analytical Method and Concentration Change on Accuracy of Adsorption Results

From the following table (part of ref. 84) it becomes obvious that when the difference between the initial mass (m_0 = 110 µg) and equilibrium concentration ($m_{aq}^{ads}(eq)$ = 100 µg) of the test substance in the solution is very small, an error of 5% in the measurement of equilibrium concentration results in an error of 50% in the calculation of the mass of the substance adsorbed in soil ($m_s^{ads}(eq)$) and of 52.4% in the calculation of the K_d.

Amount of soil m_{soil} = 10 g
Volume of solution V_0 = 100 cm³

	$m_{aq}^{ads}(eq)$ (µg)	$C_{aq}^{ads}(eq)$ (µg cm⁻³)	R	$m_s^{ads}(eq)$* (µg)	$C_s^{ads}(eq)$ *(µg g⁻¹)	R‡	K_d*	R‡
mo = 110 µg or Co = 1.100 µg / cm³	**For A = 9%**							
	100	1.000	true value	10	1.00	true value	1	
	101	1.010	1%	9	0.90	10%	0.891	10.9%
	105	1.050	5%	5	0.50	50%	0.476	52.4%
	109	1.090	9%	1	0.10	90%	0.092	90.8%
	For A = 55%							
	50.0	0.500	true value	60.0	6.00	true value	12.00	
	50.5	0.505	1%	59.5	5.95	0.8%	11.78	1.8%
	52.5	0.525	5%	57.5	5.75	4.0%	10.95	8.8%
	55.0	0.550	10%	55.0	5.50	8.3%	10.00	16.7%
	For A = 99%							
	1.100	0.011	true value	108.9	10.89	true value	990	
	1.111	0.01111	1%	108.889	10.88	0.01%	980	1.0%
	1.155	0.01155	5%	108.845	10.8845	0.05%	942	4.8%
	1.21	0.0121	10%	108.790	10.8790	0.10%	899	9.2%

* $m_s^{ads}(eq) = m_0 - m_{aq}^{ads}(eq)$, $C_s^{ads}(eq) = \dfrac{[C_0 - C_{aq}^{ads}(eq)]\,V_0}{m_{soil}}$, $K_d = \dfrac{m_s^{ads}(eq)}{m_{aq}^{ads}(eq)} \dfrac{V_0}{m_{soil}}$

$m_s^{ads}(eq)$ = mass of the test substance in the soil phase at equilibrium, µg;
$m_{aq}^{ads}(eq)$ = mass of the test substance in the aqueous phase at equilibrium, µg;
$C_s^{ads}(eq)$ = content of the test substance in the soil phase at equilibrium, µg g⁻¹;
$C_{aq}^{ads}(eq)$ = mass concentration of the test substance in the aqueous phase at equilibrium, µg cm⁻³.
R = analytical error in the determination of the $m_{aq}^{ads}(eq)$;
R‡ = calculated error due to the analytical error R.

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ANNEX 4

Estimation techniques for K_d

1. Estimation techniques permit prediction of K_d based on correlations with, for example, P_{ow} values (12, 39, 63-68), water solubility data (12, 19, 21, 39, 68-73), or polarity data derived by application of HPLC on reversed phase* (74-76). As shown in Tables 1 and 2, is the K_{oc} or K_{om} that are calculated from these equations and then, indirectly, the K_d from the equations:

$$K_{oc} = K_d \cdot \frac{100}{\%oc} \quad (cm^3 g^{-1}) \qquad K_{om} = \frac{K_d}{1.724} \cdot \frac{100}{\%oc} \quad (cm^3 g^{-1})$$

2. The concept of these correlations is based on two assumptions: (1) It is the organic matter of the soil that mainly influences the adsorption of a substance; and (2) The interactions involved are mainly non-polar. As a result, these correlations: (1) are not, or are only to some extent, applicable to polar substances, and (2) are not applicable in cases where the organic matter content of the soil is very small (12). In addition, although satisfactory correlations have been found between P_{ow} and adsorption (19), the same cannot be said for the relationship between water solubility and extent of adsorption (19, 21); so far the studies are very contradictory.

3. Some examples of correlations between the adsorption coefficient and the octanol-water partition coefficient, as well as water solubility are given in Tables 1 and 2, respectively.

Table 1. Examples of correlations between the adsorption distribution coefficient and the octanol-water partition coefficient; for further examples see refs. 12 and 68.

Compounds	Correlations	Authors
Substituted ureas	$K_{om} = 0.69 + 0.52 \log P_{ow}$	Briggs (1981) (Ref. 39)
Aromatic chlorinated	$K_{oc} = - 0.779 + 0.904 \log P_{ow}$	Chiou *et al.* (1983) (Ref. 65)
Various pesticides	$\log K_{om} = 4.4 + 0.72 \log P_{ow}$	Gerstl and Mingelgrin (1984) (Ref. 66)
Aromatic hydrocarbons	$K_{oc} = -2.53 + 1.15 \log P_{ow}$	Vowles and Mantoura (1987) (Ref. 67)

Table 2. Examples of correlations between the adsorption distribution coefficient and water solubility; for further examples see refs. 68 and 69.

Compounds	Correlations	Authors
Various pesticides	$\log K_{om} = 3.8 - 0.561 \log S_w$	Gerstl and Mingelgrin (1984) (Ref. 66)
Aliphatic, aromatic chlorinated substances	$K = (4.040 +/- 0.038) - (0.557 +/- 0.012) \log S_w$	Chiou *et al.* (1979) (Ref. 70)
a-naphtol	$\log K_{oc} = 4.273 - 0.686 \log S_w$	Hasset et al. (1981) (Ref. 71)
Cyclic, aliphatic aromatic substances	$\log K = - 1.405 - 0.921 \log S - 0.00953 (mp-25)$	Karickhoff (1981) (Ref. 72)
Various compounds	$K_{om} = 2.75 - 0.45 \log S_w$	Moreale van Blade (1982) (Ref. 73)

* Draft OECD Test Guideline *"Estimation of Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC)"*, July 1997.

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ANNEX 5

Calculations for Defining the Centrifugation Conditions

1. The centrifugation time is given by the following formula, assuming spherical particles:

$$t = \frac{9}{2}\left[\frac{\eta}{\omega^2 r_p^2 (\rho_s - \rho_{aq})}\right] \ln\left(R_b / R_t\right) \quad (1)$$

For simplification purposes, all parameters are described in non-SI units (g, cm).

where:

ω	=	rotational speed (=2 π rpm/60), rad s^{-1};
rpm	=	revolutions per minute;
η	=	viscosity of solution, g s^{-1} cm^{-1};
r_p	=	particle radius, cm;
ρ_s	=	soil density, g cm^{-3};
ρ_{aq}	=	solution density, g cm^{-3};
R_t	=	distance from the centre of centrifuge rotor to top of solution in centrifuge tube, cm;
R_b	=	distance from the centre of centrifuge rotor to bottom in centrifuge tube, cm;
R_b-R_t	=	length of the soil/solution mixture in the centrifuge tube, cm.

In general practice, double the calculated times is used to ensure complete separation.

2. The equation (1) can be simplified further if we consider the viscosity (η) and the density (ρ_{aq}) of the solution as equal to the viscosity and density of water at 25 °C; thus, η = 8.95 x 10^{-3}g $s^{-1}cm^{-1}$ and ρ_{aq} = 1.0 g cm^{-3}.

Then, the centrifugation time is given by the equation (2):

$$t = \frac{3.7}{(rpm)^2 \cdot r_p^2 (\rho_s - 1)} \ln\frac{R_b}{R_t} \quad (2)$$

3. From the equation (2) it becomes apparent that two parameters are important in defining the centrifugation condition, i.e. time (t) and speed (rpm), in order to achieve separation of particles with a specific size (in our case 0.1 µm radius): (1) the density of the soil and (2) the length of the mixture in the centrifuge tube (R_b-R_t), i.e. the distance which a soil particle covers from the top of the solution to the bottom of the tube; obviously, for a fixed volume the length of the mixture in the tube will depend on the square of the radius of the tube.

4. Fig. 1 presents variations in the centrifugation time (t) versus centrifugation speed (rpm) for different soil densities (ρ_s) (Fig. 1a) and different lengths of the mixture in the centrifuge tubes (Fig. 2a). From Fig. 1a the influence of the soil density appears obvious; for example, for a classical centrifugation of 3000 rpm the centrifugation time is approx. 240 min for 1.2 g cm^3 soil density, while it is only 50 min for 2.0 g cm^3. Similarly, from Fig 1b, for a classical centrifugation of 3000 rpm the centrifugation time is approx. 50 min for a length of the mixture of 10 cm and only 7 min for a length of 1 cm. However, it is important to find an optimal relation between centrifugation which requires the less length possible and easy handling for the experimenter in separating the phases after centrifugation.

5. Moreover, when defining the experimental conditions for the separation of soil/solution phases, it is important to consider the possible existence of a third "pseudo-phase", the colloids. These particles, with a size less than 0.2 µm, can have an important impact on the whole adsorption mechanism of a substance in a soil suspension. When centrifugation is performed as descrbided above, colloids remain in the aqueous phase and are subjected to analysis together with the aqueous phase. Thus, the information about their impact is lost. If the conducting laboratory has ultracentrifugation or ultrafiltration facilities, the adsorption/desorption of a substance in soil could be studied more in depth, including information on the adsorption of the substance on the colloids. In this case, an ultracentrifugation at 60,000 rpm or an ultrafiltration with filter porosity of 100,000 Daltons should be applied in order to separate the three phases soil, colloids, solution. The test protocol described in the following paragraphs should be also be modified accordingly, in order all three phases to be subjected to substance analysis.

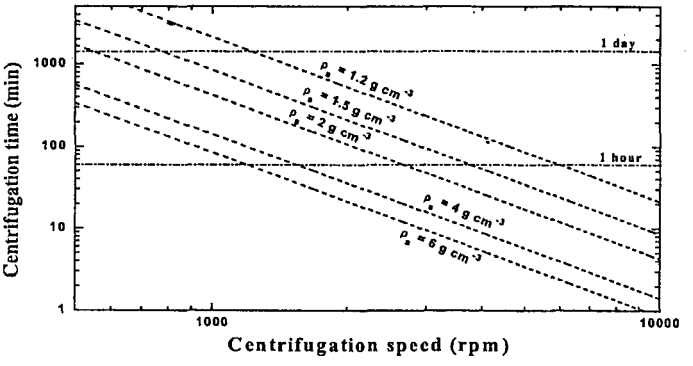

Fig. 1a Variations of centrifugation time (t) versus centrifugation speed (rpm) for different soil densities (ρ_s). R_t = 10 cm, R_b -R_t = 10 cm, η = 8.95 x 10^{-3}g $s^{-1}cm^{-1}$ and ρ_{aq} = 1.0 g cm^{-3} at 25°C.

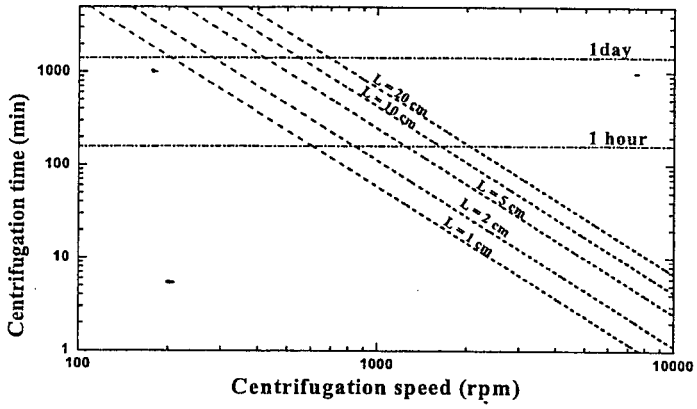

Fig. 1b Variations of centrifugation time (t) versus centrifugation speed (rpm) for different lengths of the mixture in the centrifuge tube (Rb -Rt) = L; R_t = 10 cm, $\eta = 8.95 \times 10^{-3}$ g $s^{-1}cm^{-1}$, ρ_{aq} = 1.0 g cm^{-3} at 25°C and ρ_s = 2.0 g cm^{-3}.

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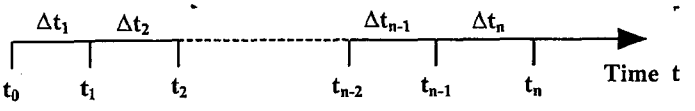
ANNEX 6

CALCULATION OF ADSORPTION A (%) and DESORPTION D(%)

1. The time scheme of the procedure is:



2. For all the calculations it is assumed that the test substance is stable and does not adsorb significantly to the container walls.

ADSORPTION A(%)

a) Parallel method

3. The percentage adsorption is calculated for each test tube (i) at each time point (t_i), according to the equation:

$$A_{t_i} = \frac{m_s^{ads}(t_i) \cdot 100}{m_0} \quad (\%) \qquad (1)^{\ddagger}$$

The terms of this equation may be calculated as follows:

$$m_0 = C_0 \cdot V_0 \ (\mu g) \qquad (2)$$

$$m_s^{ads}(t_i) = m_0 - C_{aq}^{ads}(t_i) \cdot V_0 \ (\mu g) \qquad (3)$$

where:

A_{t_i} = adsorption percentage (%) at the time point t_i;

$m_s^{ads}(t_i)$ = mass of test substance on soil at the time t_i that the analysis is performed (µg);

m_0 = mass of test substance in the test tube, at the beginning of the test (µg);

C_0 = initial mass concentration of the test solution in contact with the soil (µg cm^{-3});

$C_{aq}^{ads}(t_i)$ = mass concentration of the substance in the aqueous phase at the time t that the analysis is performed (µg cm^{-3}); this concentration is analytically determined taking into account the values given by the blanks.

V_0 = initial volume of the test solution in contact with the soil (cm^3).

The values of the adsorption percentage A_{t_i} or $C_{aq}^{ads}(t_i)$ are plotted versus time and the time after which the sorption equilibrium is attained is determined. Examples of such plots are given in Fig. 1 and Fig. 2 respectively.

‡ Equations applicable to both direct and indirect methods . All the other equations are applicable only to indirect method.

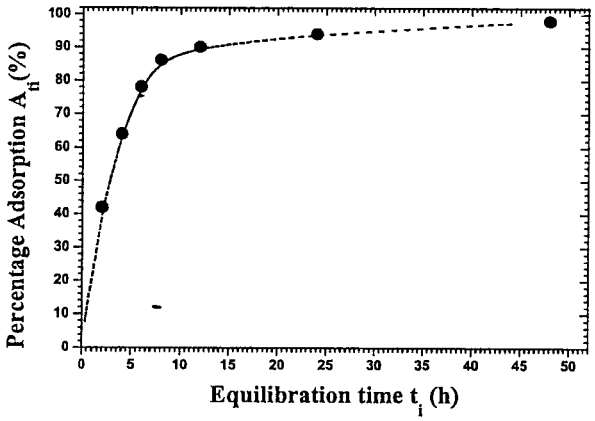


Fig. 1 Adsorption Equilibrium Plot

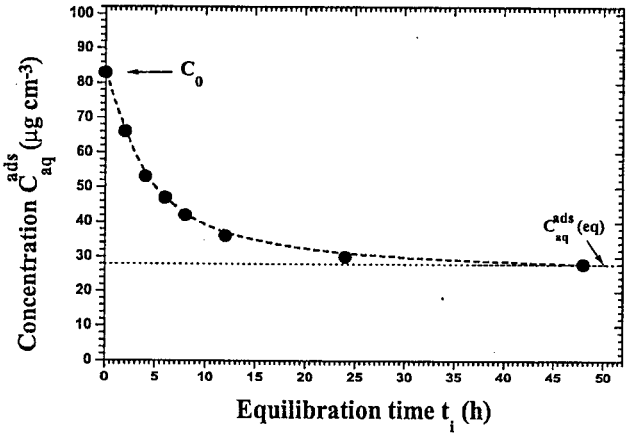


Fig. 2 Mass concentration of the test substance in the aqueous phase (C_{aq}) versus time

b) Serial method

4. The following equations take into account that the adsorption procedure is carried out by measurements of the test substance in small aliquots of the aqueous phase at specific time intervals.

- During each time interval the amount of the substance adsorbed on the soil is calculated as follows:
  - for the first time interval $\Delta t_1 = t_1 - t_0$

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$$m_s^{ads}(\Delta t_1) = m_0 - m_m^{ads}(t_1)\cdot\left(\frac{V_0}{v_a^A}\right) \quad (4)$$

- for the second time interval $\Delta t_2 = t_2 - t_1$

$$m_s^{ads}(\Delta t_2) = m_m^{ads}(t_1)\cdot\left(\frac{V_0}{v_a^A}\right) - m_m^{ads}(t_2)\cdot\left(\frac{V_0 - v_a^A}{v_a^A}\right) \quad (5)$$

- for the third time interval $\Delta t_3 = t_3 - t_2$

$$m_s^{ads}(\Delta t_3) = m_m^{ads}(t_2)\cdot\left(\frac{V_0 - v_a^A}{v_a^A}\right) - m_m^{ads}(t_3)\cdot\left(\frac{V_0 - 2\cdot v_a^A}{v_a^A}\right) \quad (6)$$

- for the n^{th} time interval $\Delta t_n = t_n - t_{n-1}$

$$m_s^{ads}(\Delta t_n) = m_m^{ads}(t_{n-1})\cdot\left(\frac{V_0 - (n-2)\cdot v_a^A}{v_a^A}\right) - m_m^{ads}(t_n)\cdot\left(\frac{(V_0 - (n-1)\cdot v_a^A)}{v_a^A}\right) \quad (7)$$

- The percentage of adsorption at each time interval, $A_{\Delta t_i}$, is calculated using the following equation:

$$A_{\Delta t_i} = \frac{m_s^{ads}(\Delta t_i)}{m_0}\cdot 100 \quad (\%) \quad (8)^{\ddagger}$$

while the percentage of adsorption (A_{t_i}) at a time point t_i is given by the equation:

$$A_{t_i} = \frac{\sum_{j=\Delta t_1}^{\Delta t_i} m_s^{ads}(j)}{m_0}\cdot 100 \ (\%) \quad (9)^{\ddagger}$$

The values of the adsorption A_{t_i} or $A_{\Delta t_i}$ (with respect to the needs of the study) are plotted versus time and the time after which the sorption equilibrium is attained is determined.

- At the equilibration time t_{eq}:
  - the mass of the test substance adsorbed on the soil is:

$$m_s^{ads}(eq) = \sum_{\Delta t_i=1}^{n} m_s^{ads}(\Delta t_i) \quad (10)^{\ddagger}$$

  - the mass of the test substance in the solution is:

$$m_{aq}^{ads}(eq) = m_0 - \sum_{\Delta t_i=1}^{n} m_s^{ads}(\Delta t_i) \quad (11)^{\ddagger}$$

  - and the percentage of adsorption at equilibrium is:

‡ Equations applicable to both direct and indirect methods. All the other equations are applicable only to indirect method.

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$$A_{eq} = \frac{m_s^{ads}(eq)}{m_0} \cdot 100 \ (\%) \qquad (12)^{\ddagger}$$

The parameters used above are defined as :

$m_s^{ads}(\Delta t_1),\ m_s^{ads}(\Delta t_2),\ldots,m_s^{ads}(\Delta t_n)$ = mass of the substance adsorbed on the soil during the time intervals $\Delta t_1, \Delta t_2,\ldots, \Delta t_n$ respectively (µg);

$m_m^{ads}(t_1),\ m_m^{ads}(t_2),\ldots,m_n^{ads}(t_n)$ = mass of the substance measured in an aliquot (v_a^A) at the time points $t_1, t_2,\ldots, t_n$ respectively (µg);

$m_s^{ads}(eq)$ = mass of the substance adsorbed on the soil at adsorption equilibrium (µg);

$m_{aq}^{ads}(eq)$ = mass of the substance in the solution at adsorption equilibrium (µg);

v_a^A = volume of the aliquot in which the test substance is measured (cm^3);

$A_{\Delta t_i}$ = percentage of adsorption corresponding at a time interval Δt_i (%);

A_{eq} = percentage of adsorption at adsorption equilibrium (%).

DESORPTION D (%)

5. The time t_0 that the desorption kinetics experiment begins, is considered as the moment that the maximal recovered volume of the test substance solution (after that the adsorption equilibrium is attained) is replaced by an equal volume of 0.01 M $CaCl_2$ solution.

a) Parallel method

6. At a time point t_i, the mass of the test substance is measured in the aqueous phase taken from the tube i (V_r^i), and the mass desorbed is calculated according to the equation:

$$m_{aq}^{des}(t_i) = m_m^{des}(t_i) \cdot \left(\frac{V_0}{V_r^i}\right) - m_{aq}^{A} \qquad (13)$$

At desorption equilibrium $t_i = t_{eq}$ and therefore $m_{aq}^{des}(t_i) = m_{aq}^{des}(eq)$.

The mass of the test substance desorbed during a time interval (Δt_i) is given by the equation:

$$m_{aq}^{des}(\Delta t_i) = m_{aq}^{des}(t_i) - \sum_{j=1}^{i-1} m_{aq}^{des}(j) \qquad (14)$$

7. The percentage of desorption is calculated:

- at a time point t_i from the equation:

$$D_{t_i} = \frac{m_{aq}^{des}(t_i)}{m_s^{ads}(eq)} \cdot 100 \ (\%) \qquad (15)$$

- and during a time interval (Δt_i) from the equation:

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$$D_{\Delta t_i} = \frac{m_{aq}^{dcs}(\Delta t_i)}{m_s^{ads}(eq)} \cdot 100 \quad (\%) \tag{16}$$

where:

D_{t_i} = desorption percentage at a time point t_i (%);

$D_{\Delta t_i}$ = desorption percentage corresponding to a time interval Δt_i (%);

$m_{aq}^{dcs}(t_i)$ = mass of the test substance desorbed at a time point t_i (µg);

$m_{aq}^{dcs}(\Delta t_i)$ = mass of the test substance desorbed during a time intervals Δt_i (µg);

$m_m^{dcs}(t_i)$ = mass of the test substance analytically measured at a time t_i in a solution volume V_r^i, which is taken for the analysis (µg);

m_{aq}^{A} = mass of the test substance left over from the adsorption equilibrium due to incomplete volume replacement (µg);

$$m_{aq}^{A} = m_{aq}^{ads}(eq) \cdot \left(\frac{V_0 - V_R}{V_0} \right) \tag{17}$$

$m_{aq}^{ads}(eq)$ = mass of the test substance in the solution at adsorption equilibrium (µg);

V_R = volume of the supernatant removed from the tube after the attainement of adsorption equilibrium and replaced by the same volume of a 0.01 M $CaCl_2$ solution (cm^3);

V_r^i = volume of the solution taken from the tube (i) for the measurement of the test substance, in desorption kinetics experiment (cm^3).

The values of the desorption D_{t_i} or $D_{\Delta t_i}$ (according to the needs of the study) are plotted versus time and the time after which the desorption equilibrium is attained is determined.

b) Serial method:

8. The following equations take into account that the adsorption procedure, which was preceded, was carried out by measurements of the test substance in small aliquots (v_a^A) of the aqueous phase (serial method, paragraph 58). It is assumed that: a) the volume of the supernatant removed from the tube after the adsorption kinetics experiment was replaced by the same volume of 0.01 M $CaCl_2$ solution (V_R) and b) the total volume of the aqueous phase in contact with the soil (V_T) during the desorption kinetics experiment remains constant and is given by the equation:

$$V_T = V_o - \sum_{i=1}^{n} v_a^A(i) \tag{18}$$

9. <u>At a time point t_i:</u>

- the mass of the test substance is measured in a small aliquot (v_a^D) and the mass desorbed is calculated, according to the equation:

$$m_{aq}^{dcs}(t_i) = m_m^{dcs}(t_i) \cdot \left(\frac{V_T}{v_a^D} \right) - m_{aq}^{A} \cdot \left(\frac{\left(V_T - (i-1) \cdot v_a^D\right)}{V_T} \right) \tag{19}$$

- At desorption equilibrium $t_i = t_{eq}$ and therefore $m_{aq}^{dcs}(t_i) = m_{aq}^{dcs}(eq)$.

- The percentage of desorption D_{t_i} is calculated, from the following equation:

$$D_{t_i} = \frac{m_{aq}^{des}(t_i)}{m_s^{ads}(eq)} \cdot 100 \quad (\%) \tag{20}$$

10. At a time interval (Δt_i):

- During each time interval the amount of the substance desorbed is calculated as follows:
  - for the first time interval $\Delta t_1 = t_1 - t_0$

$$m_{aq}^{des}(\Delta t_1) = m_m^{des}(t_1) \cdot \left(\frac{V_T}{v_a^D}\right) - m_{aq}^{A} \quad \text{and} \quad m_s^{des}(t_1) = m_s^{aq}(eq) - m_{aq}^{des}(\Delta t_1) \tag{21}$$

  - for the second time interval $\Delta t_2 = t_2 - t_1$

$$m_{aq}^{des}(\Delta t_2) = m_m^{des}(t_2) \cdot \left(\frac{V_T}{v_a^D}\right) - m_{aq}^{des}(\Delta t_1) \cdot \left(\frac{\left(V_T - v_a^D\right)}{V_T}\right) - m_{aq}^{A} \cdot \left(\frac{\left(V_T - v_a^D\right)}{V_T}\right) \tag{22}$$

and

$$m_s^{des}(t_2) = m_s^{ads}(eq) - \left[m_{aq}^{des}(\Delta t_1) + m_{aq}^{des}(\Delta t_2)\right]$$

  - for the n^{th} time interval $\Delta t_n = t_n - t_{n-1}$

$$m_{aq}^{des}(\Delta t_n) = \left[m_m^{des}(t_n) \cdot \left(\frac{V_T}{v_a^D}\right) - m_{aq}^{A} \cdot \left(\frac{\left(V_T - (n-1)\cdot v_a^D\right)}{V_T}\right) - \sum_{i=1, n\neq 1}^{n-1} \left(\frac{\left(V_T - (n-i)\cdot v_a^D\right)}{V_T} \cdot m_{aq}^{des}(\Delta t_i)\right)\right] \tag{23}$$

and $m_s^{des}(t_n) = m_s^{ads}(eq) - \sum_{i=1, n\neq 1}^{n} m_{aq}^{des}(\Delta t_i)$

- Finally, the percentage of desorption at each time interval, $D_{\Delta t_i}$, is calculated using the following equation:

$$D_{\Delta t_i} = \frac{m_{aq}^{des}(\Delta t_i)}{m_s^{ads}(eq)} \cdot 100 \quad (\%) \tag{24}$$

while the percentage of desorption D_{t_i} at a time point t_i is given by the equation:

$$D_{t_i} = \frac{\sum_{j=\Delta t_1}^{\Delta t_i} m_{aq}^{des}(j)}{m_s^{ads}(eq)} \cdot 100 = \frac{m_{aq}^{des}(t_i)}{m_s^{ads}(eq)} \cdot 100 \ (\%) \tag{25}$$

where the above used parameters are defined as :

$m_s^{des}(\Delta t_1),\ m_s^{des}(\Delta t_2), \ldots, m_s^{des}(\Delta t_n)$ = mass of the substance remaining adsorbed on the soil after the time intervals $\Delta t_1, \Delta t_2, \ldots, \Delta t_n$ respectively (µg);

$m_{aq}^{des}(\Delta t_1),\ m_{aq}^{des}(\Delta t_2), \ldots, m_{aq}^{des}(\Delta t_n)$ = mass of the test substance desorbed during the time intervals $\Delta t_1, \Delta t_2, \ldots, \Delta t_n$ respectively (µg);

$m_m^{des}(t_1),\ m_m^{des}(t_2), \ldots, m_m^{des}(t_n)$ = mass of the substance measured in an aliquot (v_a^D) at time points $t_1, t_2, \ldots, t_n$, respectively (µg);

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V_T = total volume of the aqueous phase in contact with the soil during the desorption kinetics experiment performed with theserial method (cm^3);

m_{aq}^A = mass of the test substance left over from the adsorption equilibrium due to incomplete volume replacement (µg);

$$m_{aq}^A = \left(\frac{\left(V_0 - \sum_{i=1}^{n} v_a^A(i) \right) - \bar{V}_R}{\left(V_0 - \sum_{i=1}^{n} v_a^A(i) \right)} \right) \cdot m_{aq}^{ads}(eq) \qquad (26)$$

V_R = volume of the supernatant removed from the tube after the attainement of adsorption equilibrium and replaced by the same volume of a 0.01 M $CaCl_2$ solution (cm^3);

v_a^D = volume of the aliquot sampled for analytical purpose from the tube (i), during the desorption kinetics experiment performed with the serial method (cm^3);

$$v_a^D \leq 0.02 \cdot V_T \qquad (27)$$

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ANNEX 7

ADSORPTION-DESORPTION IN SOILS: DATA REPORTING SHEETS

Substance tested:

Soil tested:

Dry mass content of the soil (105°C, 12 h): ..... %

Temperature: ..... °C

Suitability of the analytical method

Weighed soil	g	
Soil: dry mass	g	
Volume of $CaCl_2$ sol.	cm^3	
Nominal conc. final sol.	$\mu g\ cm^{-3}$	
Analytical conc. final sol.	$\mu g\ cm^{-3}$	

Principle of the analytical method used:

Calibration of the analytical method:

Substance tested:
Soil tested:
Dry mass content of the soil (105°C, 12 h): ..... %
Temperature: ..... °C

Analytical methodology followed: Indirect ☐ Parallel ☐ Serial ☐
Direct ☐

Adsorption test: test samples

	Symbol	Units	Equilibration Time		Equilibration Time		Equilibration Time		Equilibration Time	
Tube No.										
Weighed soil	-	g								
Soil: dry mass	m_{soil}	g								
Water vol. in weighed soil (calculated)	V_{ws}	cm^3								
Vol. 0.01 M CaCl to equilibrate soil		cm^3								
Vol. stock solution		cm^3								
Total volume of aq. phase in contact with soil	V_0	cm^3								
Initial concentration Test solution	C_0	$\mu g\ cm^{-3}$								
Mass test subst. at beginning of test	m_s	μg								
After agitation and centrifugation										
Indirect Method										
Parallel method										
Conc. test subst. aq. phase Blank correction included	$C_{aq}^{ads}(t_i)$	$\mu g\ cm^{-3}$								
Serial method										
Measured mass test subst. in aliquot v_a^A	$m_m^{ads}(t_i)$	μg								
Direct method										
Mass test substance adsorbed on soil	$m_s^{ads}(t_i)$	μg								
Calculation of adsorption										
Adsorption	A_{t_i}	%								
	$A_{\Delta t_i}$	%								
Means										
Adsorption coefficient	K_d	$cm^3\ g^{-1}$								
Means										
Adsorption coefficient	K_{oc}	$cm^3\ g^{-1}$								
Means										

Substance tested:

Soil tested:

Dry mass content of the soil (105°C, 12 h): ..... %

Temperature: ..... °C

Adsorption test: blanks and control

	Symbol	Units	Blank		Blank		Control	
Tube N°								
Weighed soil		g					0	0
Water amount in weighed soil (calculated)		cm^3					-	-
Volume of 0.01 M CaCl solution added		cm^3						
Volume of the stock solution of the test substance added		cm^3	0	0				
Total volume of aq. phase (calculated)		cm^3					-	-
Initial concentration of the test substance in aqueous phase		$\mu g\ cm^{-3}$						
After agitation and centrifugation								
Concentration in aqueous phase		$\mu g\ cm^{-3}$						

Remark: Add columns if necessary

Substance tested:
Soil tested:
Dry mass content of the soil (105°C, 12 h): ..... %
Temperature: ..... °C
Mass balance

	Symbol	Units				
Tube No.						
Weighed soil	-	g				
Soil: dry mass	ms_{oil}	g				
Water volume in weighed soil (calculated)	V_{WS}	ml				
Vol. 0.01 M $CaCl_2$ sol. to equilibrate soil		ml				
Volume of stock solution		cm^3				
Total vol. of aq. phase in contact with soil	V_0	cm^3				
Initial concentration Test solution	C_0	$\mu g\ cm^{-3}$				
Equilibration time	-	h				
After agitation and centrifugation						
Conc. test subst. aq. phase at adsorption equilibrium blank correction included	C_{aq}^{ads} (eq)	$\mu g\ cm^{-3}$				
Equilibration time	t_{eq}	h				
Removed volume aq. phase	V_{rec}	cm^3				
Added volume of solvent	ΔV	cm^3				
1st extraction with solvent						
Signal analyzer in solvent	S_{E1}	var.				
Conc. test substance in solvent	C_{E1}	$\mu g\ cm^{-3}$				
Mass subst. extracted from soil & vessel walls	m_{E1}	µg				
2nd dilution with solvent						
Removed volume of solvent	ΔV_s	cm^3				
Added volume of solvent	$\Delta V'$	cm^3				
2nd extraction with solvent						
Signal analyzer solvent phase	S_{E2}	var.				
Conc. test subst. in solvent	C_{E2}	$\mu g\ cm^{-3}$				
Mass subst. extracted from soil & vessel walls	m_{E2}	µg				
Total mass test subst. extracted in two steps	m_ε	µg				
Mass balance	MB	%				

Substance tested:
Soil tested:
Dry mass content of the soil (105°C, 12 h): ..... %
Temperature: ..... °C

Adsorption isotherms

	Symbol	Units								
Tube No.										
Weighed soil	-	g								
Soil: dry mass	ms_{oil}	g								
Water volume in weighed soil (calculated)	V_{ws}	cm^3								
Volume 0.01 M CaCl sol. to equilibrate the soil		cm^3								
Volume of stock solution added		cm^3								
Total volume of aq. phase in contact with soil (calculated)	V_o	cm^3								
Concentration solution	C_o	$\mu g\ cm^{-3}$								
Equilibration time	-	h								
After agitation and centrifugation										
Conc. test substance in aqueous phase, blank correction included	$C_{aq}^{ads}(eq)$	$\mu g\ cm^{-3}$								
Temperature		°C								
Adsorbed mass per unit soil	$C_s^{ads}(eq)$	$\mu g\ g^{-1}$								

Regression analysis:
value of K_F^{ads} :
value of 1/n:
regression coefficient r^2:

Substance tested:
Soil tested:
Dry mass content of the soil (105°C, 12 h): ..... %
Temperature: ..... °C

Analytical methodology followed: Indirect ☐ Parallel ☐ Serial ☐

Desorption test

		Symbol	Units	Time interval	Time interval	Time interval	Time interval
Tube No. coming from adsorption step							
Mass of substance adsorbed on soil at adsorption equilibrium		$m_s^{ads}(eq)$	µg				
Removed volume aq. phase, replaced by 0.01 M $CaCl_2$		V_R	cm^3				
Total volume of aq. phase in contact with soil	PM	V_0	cm^3				
	SM	V_T	cm^3				
Mass test subst. left over the adsorption equilibrium due to incomplete volume replacement		m_{aq}^{Λ}	µg				
Desorption kinetics							
Measured mass of substance desorbed from soil at time t_i		$m_m^{des}(t_i)$	µg				
Volume of solution taken from the tube (i) for the measurement of the test substance	PM	V_r^i	cm^3				
	SM	V_a^D	cm^3				
Mass of substance desorbed from soil at time t_i (calculated)		$m_{aq}^{des}(t_i)$	µg				
Mass of substance desorbed from soil during time interval Δt_i (calculated)		$m_{aq}^{des}(\Delta t_i)$	µg				
Desorption percentage							
Desorption at time t_i		D_{t_i}	%				
Desorption at time interval Δt_i		$D_{\Delta t_i}$	%				
Apparent desorption coefficient		K_{des}					

PM: Parallel method SM: Serial method

3M ENVIRONMENTAL LABORATORY

METHOD

ANALYSIS OF POTASSIUM PERFLUOROOCTANESULFONATE OR OTHER FLUOROCHEMICALS IN WASTE STREAM OR WATER EXTRACTS USING HPLC-ELECTROSPRAY/MASS SPECTROMETRY

Method Number: ETS-8-155.0 **Adoption Date:** 11/10/00

Revision Date:

Author: Mark L. Anderson, Mark E. Ellefson

Approved By:

Laboratory Manager — Date: 11/10/00

Group Leader — Date: 11/10/00

1.0 SCOPE AND APPLICATION

1.1 Scope: This method describes the analysis of waste stream or water extracts using HPLC-electrospray/mass spectrometry.

1.2 Applicable Compounds: Fluorochemicals or other electrospray ionizable compounds.

1.3 Matrices: Tap water, ground water, wastewater and other aqueous solutions.

2.0 SUMMARY OF METHOD

2.1 This method describes the analysis of fluorochemicals or other electrospray ionizable compounds extracted from water, using HPLC-electrospray mass spectrometry (HPLC-ES/MS). The analysis is performed by the mass selection of a single ion characteristic of a particular compound, such as the perfluorooctanesulfonate (PFOS) anion, m/z = 499 or perfluorooctanoate (PFOA), m/z = 413.

3.0 DEFINITIONS

3.1 Atmospheric Pressure Ionization (API): The Micromass Platform LCZ single quadrupole system and other commercially available LC/MS systems allow for various methods of ionization by utilizing a variety of sources, probes, and interfaces. These include but are not limited to: Electrospray Ionization (ESI), Atmospheric Pressure chemical Ionization (APcI), Thermospray, etc. The ionization in these processes occurs at atmospheric pressure (i.e., not under a vacuum).

3.2 Electrospray Ionization (ES, ESI): A method of ionization performed at atmospheric pressure, whereby ions in solution are transferred to the gas phase via tiny charged droplets. These droplets are produced by the application of a strong electrical field.

3.3 Mass Spectrometer (MS): The Platform LCZ and other commercially manufactured ES/MS systems are equipped with a single quadrupole mass selective detector. Ions are selectively discriminated by mass to charge ratio (m/z) and subsequently detected.

3.4 Conventional vs. Z-spray probe interface: The Micromass Platform LCZ system utilizes a "Z-spray" conformation. The spray emitted from the probe is orthogonal to the cone aperture. In the conventional conformation it is aimed directly at the cone aperture, after passing through a tortuous pathway in the counter electrode. Though the configuration is different, the methods of operation, cleaning, and maintenance are the same. However, Z-spray components and conventional components are not compatible with one another, but only with similar systems (i.e., Z-spray components are compatible with some other Z-spray systems, etc.). Other commercially manufactured ES/MS systems may have similar features.

3.5 Mass Lynx Software: System software designed for the specific operation of Micromass LCZ Mass spectrometer. Currently MassLynx has Windows 95 and WindowsNT 4.0 versions. All versions are similar. For more details see the manual specific to the instrument (MassLynx NT User's Guide or Micromass Platform LCZ User's Guide).

4.0 WARNINGS AND CAUTIONS

4.1 Health and Safety Warnings:

4.1.1 Use caution with the voltage cables for the probe. When engaged, the probe employs a voltage of approximately 5000 Volts.

4.1.2 When handling samples or solvents wear appropriate protective clothing, gloves, and eyewear.

4.2 Cautions:

4.2.1 Operate solvent pumps below a backpressure of 400 bar (5800 psi). If the backpressure exceeds 400 bar, the HP1100 will initiate automatic shutdown.

4.2.2 Do not run solvent pumps to dryness.

5.0 Interferences

5.1 To minimize interferences when analyzing samples, Teflon should not be used for sample storage or any part of instrumentation that comes in contact with the sample or extract.

6.0 EQUIPMENT

6.1 Equipment listed below may be modified in order to optimize the system. Document any modifications in the raw data as method deviations.

6.1.1 Micromass Platform LCZ Mass Spectrometer equipped with an electrospray ionization source.

6.1.2 HP1100 low pulse solvent pumping system, solvent degasser, column compartment, and autosampler.

7.0 SUPPLIES AND MATERIALS

7.1 Supplies

7.1.1 High purity grade nitrogen gas regulated to approximately 100 psi (or house air system.).

7.1.2 HPLC analytical column, such as a Betasil C18 column (50x2mm, 5 µm particle size) or equivalent.

7.1.3 Capped autovials or capped 15 mL centrifuge tubes.

8.0 REAGENTS AND STANDARDS

8.1 Reagents

8.1.1 Methanol, HPLC grade or equivalent.

8.1.2 Milli-Q™ water (ASTM type I), all water used in this method should be Milli-Q™ water or equivalent, and may be provided by a Milli-Q TOC Plus system or other vendor.

8.1.3 Ammonium acetate, reagent grade or equivalent.

8.1.3.1 When preparing different amounts than those listed, adjust accordingly.

8.1.3.2 2.0 mM ammonium acetate solution: Weigh approximately 0.300 g ammonium acetate. Pour into a 2000 L volumetric flask, add the appropriate volume of Milli-Q water, mix until all solids are dissolved. Store at room temperature.

8.2 Calibration Standards

8.2.1 Typically two method blanks (Milli-Q water), two matrix blanks, and solvent standards are prepared during the sample extraction procedure.

9.0 SAMPLE HANDLING

9.1 Standards and sample extracts are stored in capped autovials or capped 15 mL centrifuge tubes until analysis.

9.2 If analysis will be delayed, standards and sample extracts may be refrigerated at approximately 4° C until analyses can be performed.

10.0 QUALITY CONTROL

10.1 Solvent Blanks, Method Blanks and Matrix Blanks

10.1.1 Solvent blanks, method blanks, and matrix blanks are prepared and analyzed with each sample set to determine contamination or carryover.

10.1.2 Analyze a method blank and a matrix blank prior to each calibration curve.

10.2 Matrix Spikes

10.2.1 Matrix spikes are prepared for each sample set and analyzed to determine the matrix effect on the recovery efficiency.

10.2.2 Matrix spike duplicates are prepared periodically to measure the precision associated with the analysis.

10.2.3 Analyze the matrix spike and matrix spike duplicate (if prepared) in the same run as the original sample.

10.2.4 Matrix spike and matrix spike duplicate concentrations should fall in the mid-range of the initial calibration curve or should be prepared at 1.5-5 times the endogenous

concentration of the analyte. Spike concentrations should fall in the low-range of the initial calibration curve if extremely low levels are expected.

10.3 Continuing Calibration Verifications

10.3.1 Continuing calibration verifications (CCV) are analyzed to verify the continued accuracy of the calibration curve.

10.3.2 Analyze a mid-range calibration standard after every tenth sample, with a minimum of one per sample set.

10.4 Internal Standard/Surrogate Standard

10.4.1 An internal standard (IS) may be used to quantify the target analytes by establishing a relationship between the ratio of analyte response to IS response and a known concentration of the analyte of interest. The IS should be spiked at an amount that will fall within the mid-range of the calibration curve. The IS should be added after the extraction process and before analysis.

10.4.2 A surrogate standard may be used for quality control. The surrogate is used to quantitatively evaluate the entire analytical procedure including sample preparation and analysis. The surrogate should be spiked to fall within the low to mid-range of the calibration curve.

11.0 CALIBRATION AND STANDARDIZATION

11.1 Analyze the standard curves prior to and following each set of extracts. The average of two standard curves may be plotted by linear regression ($y = mx + b$) weighted 1/x, or quadratic fit ($y = ax^2 + bx + c$) using MassLynx or other suitable software. The calibration curves should not be forced through zero.

11.2 If the calibration curve does not meet acceptance criteria perform routine maintenance or prepare a new standard curve (if necessary) and reanalyze.

11.3 For purposes of accuracy when quantitating low levels of analyte, it may be necessary to use the low end of the calibration curve rather than the full range. Example: when attempting to quantitate approximately 10 ppb of analyte, generate a calibration curve consisting of the standards from 5 ppb to 100 ppb rather than the full range of the curve (5 ppb to 1000 ppb). This will reduce inaccuracy attributed to linear regression weighting of high concentration standards.

12.0 PROCEDURES

12.1 Acquisition Set up

12.1.1 Set up the sample list.

12.1.1.1 Assign a sample list filename using the first letter of the name of the instrument (T for Tucker), the year (00 for 2000), the month (04 for April), and the day (T001012 for October 12, 2000). If more than one list is made on the same day, use increasing letters of the alphabet starting with A at the end of the list.

12.1.1.2 Assign a method (MS) file.
12.1.1.3 Assign an HPLC program (Inlet file).
12.1.1.4 Type in sample descriptions and vial position numbers.

12.1.2 To create a method, click on method in the Acquisition control panel then mass spectrometer headings and select SIR. Set ionization mode as appropriate and mass to 499 or other appropriate masses. A full scan is usually collected in addition to the SIRs. Save acquisition method. See the Micromass MassLynx GUIDE TO DATA ACQUISITION for additional information.

12.1.3 Typically the analytical batch run sequence begins and ends with a set of solvent standards.

12.1.4 Samples are analyzed with a continuing calibration verification (CCV) injected after every tenth sample. Solvent blanks should be analyzed periodically to monitor for possible analyte carryover.

12.2 Using the Autosampler/Column Heater

12.2.1 Place sample vials into the sample tray according to the sample list prepared in Section **12.1.1**.

12.2.2 Attach the proper analytical column in the column heater compartment. If using the switching valve, make sure that the tubing is run to the appropriate ports.

12.3 Using the Inlet Editor

12.1.1 Set-up the HP1100 using the following conditions or at conditions the analyst considers appropriate for optimal response. Record actual conditions in the instrument logbook:

12.1.1.1 Sample size = 10 µL injection

12.1.1.2 Flow rate = 300 µL/min.

12.1.1.3 Cycle time = 10.0 minutes

12.1.1.4 Mobile phase components:
Solvent A: 2.0 mM Ammonium Acetate
Solvent B: Methanol (MeOH)

Solvent Gradient:	Time (min.)	% B
	0.00	5.00 %
	1.00	5.00 %
	4.50	95.0 %
	8.00	95.0 %
	8.50	5.00 %
	10.0	Stop

12.4 Instrument Set-up

12.4.1 Refer to the Platform LCZ User's Guide, the MassLynx NT User's Guide or **ETS-9-36,** "Operation and Maintenance of the Micromass Platform LCZ Electrospray/Mass Spectrometer".

12.4.2 Check the solvent level in reservoirs and refill if necessary.

12.4.3 Check the tip of the stainless steel capillary at the end of the probe with an eyepiece. The tip should be flat with no jagged edges. If the tip is found to be unsatisfactory, disassemble the probe and replace the stainless steel capillary.

12.4.4 Turn on the nebulizing gas.

12.4.5 Open the tune page. Click on 'Operate' to initiate the desolvation heaters.

12.4.6 Open the Inlet Editor.

12.4.5.1 Set HPLC pump to "On".
12.4.5.2 Set the solvent flow to the desired flow rate.
12.4.5.3 Observe droplets coming out of the tip of the probe. A fine mist should be expelled with no nebulizing gas leaking around the tip of the probe. Readjust the tip of the probe if no mist is observed.
12.4.5.4 Allow to equilibrate for at least 10 minutes.

12.4.6 The instrument uses these parameters at the following settings. These settings may change in order to optimize the response:

12.4.6.1 Drying gas 250-425 liters/hour

12.4.6.2 ESI nebulizing gas 10-15 liters/hour

12.4.6.3 HPLC constant flow mode, flow rate 10 – 500 µL/min

12.4.6.4 Pressure <400 bar (This parameter is not set, it is a guide to ensure the HPLC is operating correctly.)

12.4.6.5 Source Block temperature 150°.

12.4.6.6 Desolvation temperature 250°.

12.4.7 Print the tune page with its parameters, the Inlet page, sample list, mass spec information, and all other applicable information and store it in the study binder with copies taped into the instrument run logbook.

12.4.7.1 All copies must be initialed and dated.

12.4.8 Click on start button on the MassLynx toolbar. Ensure start and end sample numbers include all samples to be analyzed.

13.0 Data Analysis and Calculations

13.1 Calculations:

13.1.1 Calculate matrix spike percent recoveries using the following equation:

$$\% \text{ Recovery} = \frac{\text{Observed Result - Background Result}}{\text{Expected Result}} \times 100$$

13.1.2 Calculate percent difference using the following equation:

$$\% \text{ Difference} = \frac{\text{Expected Conc. - Calculated Conc.}}{\text{Expected Conc.}} \times 100$$

13.1.3 Calculate actual concentration of analyte in matrix (µg/mL):

On-Column Concentration (µg/mL) x Dilution Factors = Calculated Concentration

14.0 METHOD PERFORMANCE

14.1 The Limit of Quantitation (LOQ) is method, analyte, and matrix specific. For many analytes, the LOQ concentration is selected as the lowest acceptable non-zero standard in the calibration curve.

14.2 Solvent and method blank values must be < ½ that of the lowest standard used in the calibration curve.

14.3 The coefficient of determination (r^2) value for the calibration curve must be greater than or equal to 0.980.

14.4 Continuing Calibration Verification (CCV) percent recoveries must be ± 30% of the standard concentration.

14.5 Internal Standard recoveries should be within ± 50% of the spiked concentration.

14.6 If criteria listed in this method performance section are not met, maintenance may be performed on the system and samples reanalyzed or other actions as determined by the analyst. Document all actions in the raw data.

14.7 If data is to be reported when performance criteria have not been met, the data must be footnoted on tables and discussed in the text of the report.

15.0 POLLUTION PREVENTION AND WASTE MANAGEMENT

15.1 Sample extract waste and flammable solvent is disposed in high BTU containers, and glass pipette waste is disposed in broken glass containers located in the laboratory.

16.0 RECORDS

16.1 Each page generated for a study must have the following information included either in the header or hand written on the page: study or project number, acquisition method, integration method, sample name, extraction date, dilution factor (if applicable), and analyst.

16.2 Print the tune page, sample list, and acquisition method from MassLynx and other applicable information to include in the appropriate study folder. Copy these pages and tape into the instrument runlog.

16.3 Plot the calibration curve then print these graphs and store in the study folder.

16.4 Print data integration summary, integration method, and chromatograms, from MassLynx, and store in the study folder.

16.5 Summarize data using suitable software and store in the study folder.

16.6 Back up electronic data to appropriate medium. Record in study notebook the file name and location of backup electronic data.

17.0 ATTACHMENTS

17.1 None

18.0 REFERENCES

18.1 Platform LCZ User's Guide, Micromass UK Limited, Tudor Road, Altrincham, WA14 5RZ; or Floats Road, Wythenshawe M23 9LZ; United Kingdom.

18.2 MassLynx NT User's Guide, Micromass UK Limited, Tudor Road, Altrincham, WA14 5RZ; or Floats Road, Wythenshawe M23 9LZ; United Kingdom.

18.3 MassLynx NT Guide To Data Acquisition, Micromass UK Limited, Tudor Road, Altrincham, WA14 5RZ; or Floats Road, Wythenshawe M23 9LZ; United Kingdom.

18.4 ETS-9-36.0, "Operation and Maintenance of the Micromass Platform LCZ Electrospray/Mass Sprectrometer".

19.0 AFFECTED DOCUMENTS

19.1 None

20.0 REVISIONS

Revision Number.	Reason For Revision	Revision Date

3M ENVIRONMENTAL LABORATORY

METHOD

ANALYSIS OF POTASSIUM PERFLUOROOCTANESULFONATE OR OTHER FLUOROCHEMICALS IN WATER EXTRACTS USING HPLC-ELECTROSPRAY/MASS SPECTROMETRY/MASS SPECTROMETRY

Method Number: ETS-8-110.0

Adoption Date: 09/08/99

Revision Date:

Author: Kris Hansen, Lisa Clemen

Approved By:

Laboratory Manager	9/8/99 Date
Group Leader	9/8/99 Date
Technical Reviewer	9/8/99 Date

1.0 SCOPE AND APPLICATION

1.1 Scope: This method describes the analysis of water extracts for fluorochemicals using HPLC-electrospray/mass spectrometry/mass spectrometry.

1.2 Applicable Compounds: Fluorochemicals or other fluorinated compounds, or other ionizable compounds.

1.3 Matrices: Tap water, ground water, and wastewaters

2.0 SUMMARY OF METHOD

2.1 This method describes the analysis of fluorochemicals extracted from water, using HPLC-electrospray tandem mass spectrometry (HPLC-ESMSMS). The analysis is performed by following mass selection of a single ion characteristic of a particular fluorochemical, such as the perfluorooctanesulfonate (PFOS) anion, m/z= 499 or perfluorooctanoate (POAA), m/z = 413; a compound specific product ion is created through high-energy collisions, and creation of the product ion is monitored quantitatively. For example, the transition from 499 → 80 (characteristic of SO3-) is monitored for PFOS and the 413 → 119 (characteristic of C2F5-) transition is monitored for POAA. This selectivity afforded by this technique reduces background interferences and enhances analytical sensitivity.

3.0 DEFINITIONS

3.1 Atmospheric Pressure Ionization (API): The Micromass Quattro II triple quadrupole systems and other commercially available LC/MS and LC/MS/MS systems allow for various methods of ionization by utilizing various sources, probes, and interfaces. These include but are not limited to: Electrospray Ionization (ESI), Atmospheric Pressure chemical Ionization (APcI), Thermospray, etc. The ionization process in these techniques occurs at atmospheric pressure (i.e., not under a vacuum).

3.2 Electrospray Ionization (ES, ESI): a method of ionization performed at atmospheric pressure, whereby ions in solution are transferred to the gas phase via tiny charged droplets. These charged droplets are produced by the application of a strong electrical field.

3.3 Mass Spectrometry, Mass Spectrometer (MS), Tandem Mass Spectrometer (MS/MS): The API Quattro II triple quadrupole systems and other commercially manufactured ES/MS/MS systems that are equipped with quadrupole mass selective detectors. Ions are selectively discriminated by mass to charge ratio (m/z) and subsequently detected. A single MS may be employed for ion detection or a series (MS/MS) for more specific fragmentation information.

3.4 Conventional vs. Z-spray probe interface: The latest models of Micromass Quattro II triple quadrupole systems (post 1998) utilize a "Z-spray" conformation. The spray emitted from a probe is orthogonal to the cone aperture. In the conventional conformation it is aimed directly at the cone aperture, after passing through a tortuous pathway in the counter electrode. Though the configuration is different, the methods of operation, cleaning, and maintenance are the same. However, Z-spray components and conventional components are not compatible with one another, but only with similar systems (i.e., Z-spray components are compatible with some other Z-spray systems, etc.). Other commercially manufactured ES/MS/MS systems may have similar features.

3.5 Mass Lynx Software: System software designed for the specific operation of the Quattro II triple quadrupole systems. Currently MassLynx has Windows 95 and WindowsNT 4.0 versions. All versions are similar. For more details see the manual specific to the instrument (Micromass Quattro II triple quadrupole MassLynx or MassLynx NT User's Guide).

4.0 WARNINGS AND CAUTIONS

4.1 Health and Safety Warnings:

4.1.1 Use caution with the voltage cables for the probe. When engaged, the probe employs a voltage of approximately 5000 Volts.

4.1.2 When handling samples or solvents wear appropriate protective gloves, eyewear, and clothing.

4.2 Cautions:

4.2.1 Operate solvent pumps below a back pressure of 400 bar (5800 psi). If the back pressure exceeds 400 bar, the HP1100 will initiate automatic shutdown.

4.2.2 Do not run solvent pumps to dryness.

5.0 INTERFERENCES

5.1 To minimize interferences when analyzing samples, Teflon should not be used for sample storage or any part of instrumentation that comes in contact with the sample or extract.

6.0 EQUIPMENT

6.1 Equipment listed below may be modified in order to optimize the system. Document any modifications in the raw data as method deviations.

6.1.1 Micromass Quattro II triple quadrupole Mass Spectrometer equipped with an electrospray ionization source

6.1.2 HP1100 low pulse solvent pumping system, solvent degasser, column compartment, and autosampler

7.0 SUPPLIES AND MATERIALS

7.1 Supplies

7.1.1 High purity grade nitrogen gas regulated to approximately 100 psi (House air system)

7.1.2 High purity grade argon regulated to approximately 6 psi.

7.1.3 HPLC analytical column, such as a Betasil C18 column (50x2mm, 5 µm particle)

7.1.4 Capped autovials or capped 15 mL centrifuge tubes

8.0 REAGENTS AND STANDARDS

8.1 Reagents

8.1.1 Methanol, HPLC grade or equivalent

8.1.2 Milli-Q™ water (ASTM type I), all water used in this method should be Milli-Q™ water or equivalent, and may be provided by a Milli-Q TOC Plus system or other vendor

8.1.3 Ammonium acetate, reagent grade or equivalent

8.1.3.1 When preparing different amounts than those listed, adjust accordingly.

8.1.3.2 2.0 mM ammonium acetate solution: Weigh approximately 0.300 g ammonium acetate. Pour into a 2000 L volumetric flask containing 2000 mL Milli-Q water, mix until all solids are dissolved. Store at room temperature.

8.2 Standards

8.2.1 Typically two method (Milli-Q water) blanks, two matrix (tap water) blanks, and eighteen solvent standards are prepared during the extraction procedure.

9.0 Sample Handling

9.1 Standards and sample extracts are stored in capped autovials or capped 15 mL centrifuge tubes until analysis.

9.2 If analysis will be delayed, standards and sample extracts may be refrigerated at approximately 4° C, or at room temperature, until analysis can be performed.

10.0 Quality Control

10.1 Solvent Blanks, Method Blanks and Matrix Blanks

10.1.1 Solvent blanks, method blanks and matrix blanks are prepared and analyzed with each batch to determine contamination or carryover.

10.1.2 Analyze a method blank and a matrix blank prior to each calibration curve.

10.2 Matrix Spikes

10.2.1 Matrix spikes are prepared for each sample and analyzed to determine the matrix effect on the recovery efficiency.

10.2.2 Matrix spike duplicates are prepared periodically to measure the precision associated with the analysis.

10.2.3 Analyze a matrix spike and matrix spike duplicate (if prepared) in the same run as the original sample.

10.2.4 Matrix spike and matrix spike duplicate concentrations should fall in the mid-range of the initial calibration curve or should be prepared at 1.5-5 times the endogenous concentration of the analyte. Spike concentrations should fall in the low-range of the initial calibration curve, if extremely low-levels are expected

10.3 Continuing Calibration Verifications

10.3.1 Continuing calibration verifications are analyzed to verify the continued accuracy of the calibration curve.

10.3.2 Analyze a mid-range calibration standard after every tenth sample, with a minimum of one per batch.

11.0 CALIBRATION AND STANDARDIZATION

11.1 Analyze the standards prior to and following each set of extracts. The average of two standard curves will be plotted by linear regression ($y = my + b$), weighted 1/x, not forced through zero, using MassLynx or other suitable software.

11.2 If the curve does not meet requirements perform routine maintenance or prepare a new standard curve (if necessary) and reanalyze.

11.3 For purposes of accuracy when quantitating low levels of analyte, it may be necessary to use the low end of the calibration curve rather than the full range of the standard curve. Example: when attempting to quantitate approximately 10 ppb of analyte, generate a calibration curve consisting of the standards from 5 ppb to 100 ppb rather than the full range of the curve (5 ppb to 1000 ppb). This will reduce inaccuracy attributed to linear regression weighting of high concentration standards.

12.0 PROCEDURES

12.1 Acquisition Set up

12.1.1 Set up the sample list.

12.1.1.1 Assign a sample list filename using MO-DAY-last two digits of year-increasing letter of the alphabet starting with A

12.1.1.2 Assign a method (MS) file

12.1.1.3 Assign an HPLC program (Inlet file)

12.1.1.4 Type in sample descriptions and vial position numbers

12.1.2 To create a method click on method in the Acquisition control panel then mass spectrometer headings and select SIR (Single Ion Recording) or MRM (Multiple Reaction Monitoring). Set Ionization Mode as appropriate and mass to 499 or other appropriate masses. A full scan is usually collected along with the SIRs. Save acquisition method. If MS/MS instruments are employed, additional product ion fragmentation information may be collected. See Micromass MassLynx GUIDE TO DATA ACQUISITION for additional information and MRM.

12.1.3 Typically the analytical batch run sequence begins and ends with a set of solvent standards.

12.1.4 Samples are analyzed with a continuing calibration check injected after every tenth sample. Solvent blanks should be analyzed periodically to monitor possible analyte carryover and are not considered samples but may be included as such.

12.2 Using the Autosampler

12.2.1 Set up sample tray according to the sample list prepared in Section **12.1.1**.

12.2.2 Set-up the HP1100/autosampler at the following conditions or at conditions the analyst considers appropriate for optimal response. Record actual conditions in the instrument logbook:

12.2.2.1 Sample size = 10 µL injection

12.2.2.2 Inject/sample = 1

12.2.2.3 Cycle time = 9.0 minutes

12.2.2.4 Solvent ramp =

Time	MeOH	2.0 mM Ammonium acetate
0.00 min.	40%	60%
1.00 min.	40%	60%
4.50 min.	95%	5%
6.50 min.	95%	5%
7.00 min.	40%	60%
9.00 min.	40%	60%

12.2.2.5 Press the "Start" button.

12.3 Instrument Set-up

12.3.1 Refer to **ETS-9-24,** "Operation and Maintenance of the Micromass Quattro II Triple Quadrupole Mass Spectrometer Fitted with an Atmospheric Pressure Ionization Source," for more details.

12.3.2 Check the solvent level in reservoirs and refill if necessary.

12.3.3 Check the stainless steel capillary at the end of the probe. Use an eyepiece to check the tip. The tip should be flat with no jagged edges. If the tip is found to be unsatisfactory, disassemble the probe and replace the stainless steel capillary.

12.3.4 Turn on the nitrogen

12.3.5 Open the tune page. Click on operate to initiate source block and desolvation heaters.

12.3.6 Open the Inlet Editor.

12.3.6.1 Set HPLC pump to "On".
12.3.6.2 Set the flow to 10 - 500 uL/min or as appropriate.
12.3.6.3 Observe droplets coming out of the tip of the probe. A fine mist should be expelled with no nitrogen leaking around the tip of the probe. Readjust the tip of the probe if no mist is observed.
12.3.6.4 Allow to equilibrate for approximately 10 minutes.

12.3.7 The instrument uses these parameters at the following settings. These settings may change in order to optimize the response:

12.3.7.1 Drying gas 250-400 liters/hour

12.3.7.2 ESI nebulizing gas 10-15 liters/hour

12.3.7.3 HPLC constant flow mode, flow rate 10 – 500 µL/min

12.3.7.4 Pressure <400 bar (This parameter is not set, it is a guide to ensure the HPLC is operating correctly.)

12.3.7.5 Source Block temperature 150°

12.3.7.6 Desolvation temperature 250°

12.3.8 Print the tune page, with its parameters, and store it in the study binder with a copy taped into the instrument log.

12.3.9 Using the cross-flow counter electrode in the ES/MS source is recommended for the analysis of biological matrices.

12.3.10 Click on start button in the Acquisition Control Panel (this may vary among MassLynx versions, see appropriate MassLynx USER'S GUIDE). Ensure start and end sample number includes all samples to be analyzed.

13.0 Data Analysis and Calculations

13.1 Calculations:

13.1.4 Calculate matrix spike percent recoveries using the following equation:

$$\% \text{ Recovery} = \frac{\text{Observed Result - Background Result}}{\text{Expected Result}} \times 100$$

13.1.5 Calculate percent difference using the following equation:

$$\% \text{ Difference} = \frac{\text{Expected Conc. - Calculated Conc.}}{\text{Expected Conc.}} \times 100$$

13.1.6 Calculate actual concentration of PFOS, or other fluorochemical, in matrix (µg/mL):

$$\frac{\text{(ng of PFOS calc. from std. Curve x 0.8 Dilution Factor)}}{\text{(Initial Volume of matrix (mL) + mL of Surrogate Standard)}} \times \frac{1\ \mu g}{1000\ ng}$$
$$\text{Final Volume (mL)}$$

14.0 Method Performance

14.1 Method Detection Limit (MDL) and Limit of Quantitation (LOQ) are method, analyte, and matrix specific. Please see applicable extraction method for a listing of current MDL and LOQ values.

14.2 Solvent Blanks, Method Blanks, and Matrix Blanks

14.2.1 Solvent blanks, method blanks, and calibration blanks values must be below the lowest standard in the calibration curve

14.3 Calibration Curves

14.3.1 The r^2 value for the calibration curve must be 0.980 or better.

14.4 Matrix Spikes

14.4.1 Matrix spike percent recoveries must be within ± 30% of the spiked concentration.

14.5 Continuing Calibration Verifications

14.5.1 Continuing calibration verification percent recoveries must be ± 30% of the spiked concentration.

14.6 If criteria listed in this method performance section is not met, maintenance may be performed on the system and samples reanalyzed or other actions as determined by the analyst. Document all actions in the appropriate logbook.

14.7 If data are to be reported when performance criteria have not been met, the data must be footnoted on tables and discussed in the text of the report.

15.0 POLLUTION PREVENTION AND WASTE MANAGEMENT

15.1 Sample extract waste and flammable solvent is disposed in high BTU containers, and glass pipette waste is disposed in broken glass containers located in the laboratory.

16.0 RECORDS

16.1 Each page generated for a study must have the following information included either in the header or hand written on the page: study or project number, acquisition method, integration method, sample name, extraction date, dilution factor (if applicable), and analyst.

16.2 Print the tune page, sample list, and acquisition method from MassLynx to include in the appropriate study folder. Copy these pages and tape into the instrument runlog.

16.3 Plot the calibration curve by linear regression, weighted 1/x, then print these graphs and store in the study folder.

16.4 Print data integration summary, integration method, and chromatograms, from MassLynx, and store in the study folder.

16.5 Summarize data using suitable software (Excel 7.0) and store in the study folder.

16.6 Back up electronic data to appropriate medium. Record in study notebook the file name and location of backup electronic data.

17.0 TABLES, DIAGRAMS, FLOWCHARTS, AND VALIDATION DATA

17.1 None

18.0 REFERENCES

18.1 ETS-9-24.0, "Operation and Maintenance of the Micromass Atmospheric Pressure Ionization/Mass Spectrometer Quattro II Triple Quadrupole Systems"

19.0 AFFECTED DOCUMENTS

None

20.0 REVISIONS

Revision Number.	Reason For Revision	Revision Date

Appendix C: Sample Preparation Sheets

This appendix includes log sheets from the sample preparation portion of the method.

"Suitable Analytical"

"Suitable Container"

"Optimal Ratio"

"Optimal Ratio/Mass Balance"

"Desorption Solvent"

"Adsorption Kinetics"

"Desorption Kinetics, Serial Method"

"Adsorption Isotherms, Multiple Concentrations"

"Desorption Isotherms, Multiple Concentrations"

Suitable Analytical | ETS-8-159 Section 12.2 | Test Substance: PFOS

Sample ID	Soil Type	Soil weight, grams (20 g)	100 mL CaCl2 solution	Equilibrate 4 hours (Yes/No)	Centrifuge (Yes/No)	Comments
1	2	3	4	5	6	7
E00-1311-0001	ST=1 Loam	20.0309g	CMC	Y CMC	Y CMC	① ②
E00-1311-0002	ST=1	19.9885g		CMC	Y	②
E00-1311-0003	ST=1	20.0233g				
E00-1311-0004	ST=2 Clay loam	19.9990g				
E00-1311-0005	ST=2	19.9707g				
E00-1311-0006	ST=2	20.0299g				
E00-1311-0007	ST=3 Clay	19.9895g				
E00-1311-0008	ST=3	20.0060g				
E00-1311-0009	ST=3	20.0318g				
E00-1311-0010	ST=Sed	20.0208g				
E00-1311-0011	ST=Sed	20.0263g				
E00-1311-0012	ST=Sed	19.9858g				
E00-1311-0013	ST=Slg 025	20.0136g				
E00-1311-0014	ST=Slg 025	19.9833g				
E00-1311-0015	ST=Slg 025/026	19.9772g				

CMC 1/15/01

Col. 2 ST-1 TCR 00 065-58 ST-2 TCR 00 065-64 ST-3 TCR-00065-77

ST-Sed TCR Log 10/25/00 00 065-70 ST-Slg TCR-00065-025 & TCR-00065-026

Col. 3 Balance ID 916

T/D/I 9:30 AM - 3:35 PM 10/25/00 / Log ③

Col. 4 0.01 M CaCl2 Soln ID #: 00001-31-10

T/D/I 1:30pm 11/01/00 CMC

Col. 5 Inc. ID I-13

Start T/D/I 1:30pm 11/01/00 CMC

Stop T/D/I 6:50Am 11/02/00 CMC

Col. 6 T/D/I 8:00 Am 11/02/00 CMC ④

① Diluted 10x on "Spanky" w/MeOH TNA-4715 1/15/01 CMC

② Added 12.5 µL THPFOS I.S 00001-02-01 1/15/01 CMC

③ AC Weighed, dryed soil Stored @ Room Temp in prep lab until CaCl2 added 1/19/01 CMC

④ AC Samples stored under refrigeration in R-2 until dilution 1/19/01 CMC

GLP Study Number: E00-1311 Page 1 of 3

Suitable Analytical | ETS-8-159 Section 12.2 | Test Substance: PFOS

Sample ID	Original Matrix Solution	conc. of Test Substance mg/L	100 uL of Stock Test Substance Added	Matrix Solution Added (10 mL to Volume)	1.00mL of Study Sample	Comments
1	2	3	4	5	6	7
E00-1311-0016	E00-1311-0001	0.0		cmc	cmc	ST=1
E00-1311-0017	E00-1311-0002	0.0				ST=1
E00-1311-0018	E00-1311-0003	0.0				ST=1 (3)
E00-1311-0019	E00-1311-0004	0.0				ST=2 (4)
E00-1311-0020	E00-1311-0005	0.0				ST=2
E00-1311-0021	E00-1311-0006	0.0				ST=2
E00-1311-0022	E00-1311-0007	0.0				ST=3
E00-1311-0023	E00-1311-0008	0.0				ST=3
E00-1311-0024	E00-1311-0009	0.0				ST=3
E00-1311-0025	E00-1311-0010	0.0				ST=Sed
E00-1311-0026	E00-1311-0011	0.0				ST=Sed
E00-1311-0027	E00-1311-0012	0.0				ST=Sed
E00-1311-0028	E00-1311-0013	0.0				ST=Slg
E00-1311-0029	E00-1311-0014	0.0 (2)				ST=Slg
E00-1311-0030	E00-1311-0015	0.0 5.0				ST=Slg
E00-1311-0031	E00-1311-0001	~~1.0~~ 5.0 (1)	cmc			ST=1
E00-1311-0032	E00-1311-0001	〃	〃	〃	〃	ST=1
E00-1311-0033	E00-1311-0001	〃	〃	〃	〃	ST=1
E00-1311-0034	E00-1311-0002	〃	〃	〃	〃	ST=1
E00-1311-0035	E00-1311-0002	〃	〃	〃	〃	ST=1
E00-1311-0036	E00-1311-0002	〃	〃	〃	〃	ST=1
E00-1311-0037	E00-1311-0003	〃	〃	〃	〃	ST=1
E00-1311-0038	E00-1311-0003	〃	〃	〃	〃	ST=1
E00-1311-0039	E00-1311-0003	〃	〃	〃	〃	ST=1
E00-1311-0040	E00-1311-0004	〃	〃	〃	〃	ST=2
E00-1311-0041	E00-1311-0004	〃	〃	〃	〃	ST=2
E00-1311-0042	E00-1311-0004	〃	〃	〃	〃	ST=2
E00-1311-0043	E00-1311-0005	〃	〃	〃	〃	ST=2
E00-1311-0044	E00-1311-0005	〃	〃	〃	〃	ST=2
E00-1311-0045	E00-1311-0005	〃	〃	〃	〃	ST=2
E00-1311-0046	E00-1311-0006	〃	〃	〃	〃	ST=2
E00-1311-0047	E00-1311-0006	〃	〃	〃	〃	ST=2
E00-1311-0048	E00-1311-0006	〃	〃	〃	〃	ST=2
E00-1311-0049	E00-1311-0007	〃	〃	〃	〃	ST=3
E00-1311-0050	E00-1311-0007	〃	〃	〃	〃	ST=3
E00-1311-0051	E00-1311-0007	〃	〃	〃	〃	ST=3
E00-1311-0052	E00-1311-0008	〃	〃	〃	〃	ST=3
E00-1311-0053	E00-1311-0008	〃	〃	〃	〃	ST=3
E00-1311-0054	E00-1311-0008	〃	〃	〃	〃	ST=3

cmc 1/15/01

(3) Samples Diluted 10x on Spark Lab 4/MeOH FNAT-4715 1/15/01 cmc

(4) Added 12.5uL THPFOS IS a001-002-01 1/15/01 cmc

(1) (TE) Conc = 0.5mg/L cmc 1/10/01

(2) (HE) 5.0mg/L, math error in Calculating conc. of spiking solution cmc 1/10/01

GLP Study Number: E00-1311

Suitable Analytical | ETS-8-159 Section 12.2 | Test Substance: PFOS

Sample ID	Original Matrix Solution	conc. of Test Substance mg/L	100 uL of Stock Test Substance Added	Matrix Solution Added (10 mL to Volume)	1.00mL of Study Sample	Comments
1	2	3 5.0mg/L (3)	4	5	6	7
E00-1311-0055	E00-1311-0009	~~0.5~~ (1)	CMC	CMC	CMC	ST=3
E00-1311-0056	E00-1311-0009					ST=3 (4)
E00-1311-0057	E00-1311-0009					ST=3 (5)
E00-1311-0058	E00-1311-0010					ST=Sed
E00-1311-0059	E00-1311-0010					ST=Sed
E00-1311-0060	E00-1311-0010					ST=Sed
E00-1311-0061	E00-1311-0011					ST=Sed
E00-1311-0062	E00-1311-0011					ST=Sed
E00-1311-0063	E00-1311-0011					ST=Sed
E00-1311-0064	E00-1311-0012					ST=Sed
E00-1311-0065	E00-1311-0012					ST=Sed
E00-1311-0066	E00-1311-0012					ST=Sed
E00-1311-0067	E00-1311-0013					ST=Slg
E00-1311-0068	E00-1311-0013					ST=Slg
E00-1311-0069	E00-1311-0013					ST=Slg
E00-1311-0070	E00-1311-0014					ST=Slg
E00-1311-0071	E00-1311-0014					ST=Slg
E00-1311-0072	E00-1311-0014					ST=Slg
E00-1311-0073	E00-1311-0015					ST=Slg
E00-1311-0074	E00-1311-0015					ST=Slg
E00-1311-0075	E00-1311-0015					ST=Slg

CMC 1/15/01

(4) Samples Diluted 1ox on Spanky w/MeOH TNA-4715 CMC 1/15/01

(5) Added 12.5uL THPFOS IS 0001-08-01 1/15/01 CMC

Col. 4 Test Substance = PFOS (TCR-00017-046) ID #: ~~50mg/L~~ 00001-31-11 (2)

(7)

T/D/I 11:30 11/02/00 CMC

Col. 5 Matrix Solution ID #: E00-1311-0001 to -0015

T/D/I 11:30 11/02/00 CMC

Col. 6 T/D/I 11:30 11/02/00 CMC (6)

Internal Standard ID Number 22.2 µg/mL THPFOS 00001-24-03

T/D/I 2:30 11/02/00 CMC

(6) (AC) Samples Stored under refrigeration in R-2 until dilution 4/19/01 CMC

(7) (AC) Incorrect concentration crossed out for clarity CMC 4/19/01

(1) (TE) Conc = 0.5mg/L CMC 11/1/00

(2) (ME) 500mg/L CMC 1/10/01

(3) (ME) 5.0mg/L due to math error in calculating conc. of spiking solution CMC 1/10/01

Suitable Container

ETS-8-159 Section 12.3

Test Substance:

Col 3
CT-1 Polypropylene CT-4 Teflon
CT-2 304 Stainless CT-5
CT-3 GLASS

(3) Col 7 T/D/I 11:40 11/13/00 cmc
(a) 0.0 mg/L Test Subs. Soln ID 00001-31-10
(b) 0.1 mg/L Test Subs. Soln ID 00001-32-09
(f) 1 mg/L Test Subs. Soln ID ~~00001-32-12~~ (3)

Col 8 Inc. ID I-13
(4) Start T/D/I 11:40 11/13/00 cmc
Stop T/D/I 12:10 11/14/00 cmc

Col 9
(2) T/D/I 2:00 11/14/00 cmc

Col 10
Spike Soln ID 50ppm PFOS 00001-32-15
(3) T/D/I 1:30 11/15/00 cmc

Col 12
MeOH ID TNA-4715
(2) T/D/I 1:30 11/15/00 cmc

Col 13
(5) T/D/I 1:30 11/15/00 cmc

Col 14
Spike Soln ID 00001-32-15

Internal Standard ID 00001-32-14
(5) T/D/I 1:30 11/15/00 cmc

Sample ID	Spike	Centrifuge Type	Time (0 hr or 24)	Concentration, mg/L	S1 (Adsorb)	10.0 mL of Test Subst. Soln.	Equilibrate 24 hours	1.00 mL sample	Spike Soln Addition, uL	S2 (Desorb)	2.0 mL Methanol	Remove 1.00 mL	Spike Soln Addition	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
E00-1311-1001	—	NA	0 hr	0.0	S1	—	—		—	—	—	—	—	(AC) cmc 11/15/00: All samples Diluted 1:1 w/ MeOH TNA-4715 cmc 11/15/00 (AC) Diluted on "Buckwheat" cmc 4-19-01
E00-1311-1002	—	NA	0 hr	0.0	S1	—	—		—	—	—	—	—	
E00-1311-1003	—	NA	0 hr	0.0	S1	—	—		—	—	—	—	—	
E00-1311-1004	—	NA	0 hr	0.1	S1	—	—		—	—	—	—	—	
E00-1311-1005	—	NA	0 hr	0.1	S1	—	—		—	—	—	—	—	
E00-1311-1006	—	NA	0 hr	0.1	S1	—	—		—	—	—	—	—	
E00-1311-1007	—	NA	0 hr	1	S1	—	—		—	—	—	—	—	
E00-1311-1008	—	NA	0 hr	1	S1	—	—		—	—	—	—	—	
E00-1311-1009	—	NA	0 hr	1	S1	—	—		—	—	—	—	—	
E00-1311-1010	—	CT-1	24 hr	0.0	S1	cmc	cmc	cmc	—	S2	cmc	cmc	—	
E00-1311-1011	—	CT-1	24 hr	0.0	S1				—	S2			—	
E00-1311-1012	—	CT-1	24 hr	0.0	S1				—	S2			—	
E00-1311-1012	MS	CT-1	24 hr	0.0	S1				8µL	S2			8µL	
E00-1311-1013	—	CT-1	24 hr	0.1	S1				—	S2			—	
E00-1311-1014	—	CT-1	24 hr	0.1	S1				—	S2			—	
E00-1311-1015	—	CT-1	24 hr	0.1	S1				—	S2			—	
E00-1311-1015	MS	CT-1	24 hr	0.1	S1				8µL	S2			8µL	
E00-1311-1016	—	CT-1	24 hr	1	S1				—	S2			—	
E00-1311-1017	—	CT-1	24 hr	1	S1				—	S2			—	
E00-1311-1018	—	CT-1	24 hr	1	S1				—	S2			—	
E00-1311-1018	MS	CT-1	24 hr	1	S1				8µL	S2			8µL	
E00-1311-1019	—	CT-2	24 hr	0.0	S1				—	S2			—	
E00-1311-1020	—	CT-2	24 hr	0.0	S1				—	S2			—	
E00-1311-1021	—	CT-2	24 hr	0.0	S1				—	S2			—	
E00-1311-1021	MS	CT-2	24 hr	0.0	S1				8µL	S2			8µL	
E00-1311-1022	—	CT-2	24 hr	0.1	S1				—	S2			—	
E00-1311-1023	—	CT-2	24 hr	0.1	S1				—	S2			—	
E00-1311-1024	—	CT-2	24 hr	0.1	S1				—	S2			—	
E00-1311-1024	MS	CT-2	24 hr	0.1	S1				8µL	S2			8µL	
E00-1311-1025	—	CT-2	24 hr	1	S1				—	S2			—	
E00-1311-1026	—	CT-2	24 hr	1	S1				—	S2			—	
E00-1311-1027	—	CT-2	24 hr	1	S1				—	S2			—	
E00-1311-1027	MS	CT-2	24 hr	1	S1				8µL	S2			8µL	
E00-1311-1028	—	CT-3	24 hr	0.0	S1				—	S2			—	
E00-1311-1029	—	CT-3	24 hr	0.0	S1				—	S2			—	
E00-1311-1030	—	CT-3	24 hr	0.0	S1				—	S2			—	
E00-1311-1030	MS	CT-3	24 hr	0.0	S1				8µL	S2			8µL	
E00-1311-1031	—	CT-3	24 hr	0.1	S1				—	S2			—	
E00-1311-1032	—	CT-3	24 hr	0.1	S1				—	S2			—	
E00-1311-1033	—	CT-3	24 hr	0.1	S1				—	S2			—	
E00-1311-1033	MS	CT-3	24 hr	0.1	S1				8µL	S2			8µL	
E00-1311-1034	—	CT-3	24 hr	1	S1				—	S2			—	
E00-1311-1035	—	CT-3	24 hr	1	S1				—	S2			—	
E00-1311-1036	—	CT-3	24 hr	1	S1				—	S2			—	
E00-1311-1036	MS	CT-3	24 hr	1	S1				8µL	S2			8µL	
E00-1311-1037	—	CT-4	24 hr	0.0	S1				—	S2			—	
E00-1311-1038	—	CT-4	24 hr	0.0	S1				—	S2			—	
E00-1311-1039	—	CT-4	24 hr	0.0	S1				—	S2			—	
E00-1311-1039	MS	CT-4	24 hr	0.0	S1				8µL	S2			8µL	
E00-1311-1040	—	CT-4	24 hr	0.1	S1				—	S2			—	
E00-1311-1041	—	CT-4	24 hr	0.1	S1				—	S2			—	
E00-1311-1042	—	CT-4	24 hr	0.1	S1				—	S2			—	
E00-1311-1042	MS	CT-4	24 hr	0.1	S1				8µL	S2			8µL	
E00-1311-1043	—	CT-4	24 hr	1	S1				—	S2			—	
E00-1311-1044	—	CT-4	24 hr	1	S1				—	S2			—	
E00-1311-1045	—	CT-4	24 hr	1	S1				—	S2			—	
E00-1311-1045	MS	CT-4	24 hr	1	S1				8µL	S2			8µL	
~~E00-1311-1046~~	~~—~~	~~CT-5~~	~~24 hr~~	~~0.0~~	~~S1~~				—	S2			—	
~~E00-1311-1047~~	~~—~~	~~CT-5~~	~~24 hr~~	~~0.0~~	~~S1~~				—	S2			—	
E00-1311-1048	—	CT-5	24 hr	0.0	S1				—	S2			—	
E00-1311-1048	MS	CT-5	24 hr	0.0	S1				—	S2			—	
E00-1311-1049	—	CT-5	24 hr	0.1	S1				—	S2			—	
E00-1311-1050	—	CT-5	24 hr	0.1	S1				—	S2			—	
E00-1311-1051	—	CT-5	24 hr	0.1	S1				—	S2			—	
E00-1311-1051	MS	CT-5	24 hr	0.1	S1				—	S2			—	
E00-1311-1052	—	CT-5	24 hr	1	S1				—	S2			—	
E00-1311-1053	—	CT-5	24 hr	1	S1				—	S2			—	
E00-1311-1054	—	CT-5	24 hr	1	S1				—	S2			—	
E00-1311-1054	MS	CT-5	24 hr	1	S1				—	S2			—	

cmc = 11/13/00

(3) 00001-32-08 cmc 5/23/01

(1) Study Samples stored under refrigeration in R-2 until analysis (AC) cmc 4/19/01

(2)(AC) All recorded times are between 11:40 AM and 2:00 pm each day cmc 4/19/01

GLP Study Number:

Optimal Ratio — ETS-8-159 Section 12.5 — PFOS Test Substance

Sample ID	Spike	Soil Type	Test Subs. conc., mg/L (3)	Soil:Soln Ratio	HR	Sampling	Soil Weight (grams)	0.01 M CaCl2 Addition	Equilibrate 12 hours	Test Substance Addition (6)	Equilibrate for x hours	centrifuge (Y/N)	pH	Weigh tube+contents,g (48 hr)	Remove 1.0 mL Study Sample	Add Spike Soln (uL)	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E00-1311-3001	—	—	0.0	NA	0	S1	—		cmc	—	—	—	—	—		—	10x Dil 12/7/00 cmc
E00-1311-3002	—	—	0.0	NA	0	S1	—			—	—	—	—	—		—	MeOH TNA-4715
E00-1311-3003	—	—	0.0	NA	0	S1	—			—	—	—	6.5	—		—	(AC) Diluted on "Spanky" cmc 4-19-01
E00-1311-3003	MS	—	0.0	NA	0	S1	—			—	—	—	—	—		20 µL	
E00-1311-3004	—	—	~~0.5~~	NA	0	S1	—			cmc	—	—	—	—		—	
E00-1311-3005	—	—	~~0.5~~	NA	0	S1	—				—	—	—	—		—	
E00-1311-3006	—	—	~~0.5~~	NA	0	S1	—				—	—	6.5	—		—	
E00-1311-3006	MS	—	~~0.5~~	NA	0	S1	—				—	—	—	—		20 µL	
E00-1311-3007	—	—	0.0	NA	48	S1	—			—	cmc	—	—	19.4827g		—	
E00-1311-3008	—	—	0.0	NA	48	S1	—			—		—	—	19.5032g		—	
E00-1311-3009	—	—	0.0	NA	48	S1	—			—		—	6.5	19.5473g		—	
E00-1311-3009	MS	—	0.0	NA	48	S1	—			—		—	—	—		20 µL	
E00-1311-3010	—	—	~~0.5~~	NA	48	S1	—			cmc		—	—	19.5348g		—	
E00-1311-3011	—	—	~~0.5~~	NA	48	S1	—					—	—	19.5979g		—	
E00-1311-3012	—	—	~~0.5~~	NA	48	S1	—					—	6.5	19.4943g		—	
E00-1311-3012	MS	—	~~0.5~~	NA	48	S1	—					—	—	—		20 µL	
E00-1311-3013	—	Clay	0.0	1:1	0	S1	4.9914			—	—	cmc	—	—		—	
E00-1311-3014	—	Clay	0.0	1:1	0	S1	5.0057			—	—		—	—		—	
E00-1311-3015	—	Clay	0.0	1:1	0	S1	5.0052			—	—		6.5	—		—	
E00-1311-3015	MS	Clay	0.0	1:1	0	S1	—			—	—		—	—		20 µL	
E00-1311-3016	—	Clay	0.0	1:5	0	S1	2.5207			—	—		—	—		—	
E00-1311-3017	—	Clay	0.0	1:5	0	S1	2.4807			—	—		—	—		—	
E00-1311-3018	—	Clay	0.0	1:5	0	S1	2.5095			—	—		6.5	—		—	
E00-1311-3018	MS	Clay	0.0	1:5	0	S1	—			—	—		—	—		20 µL	
E00-1311-3019	—	Clay	0.0	1:25	0	S1	1.0260			—	—		—	—		—	
E00-1311-3020	—	Clay	0.0	1:25	0	S1	1.0117			—	—		—	—		—	
E00-1311-3021	—	Clay	0.0	1:25	0	S1	0.9970			—	—		6.5	—		—	
E00-1311-3021	MS	Clay	0.0	1:25	0	S1	—			—	—		—	—		20 µL	
E00-1311-3022	—	Clay	0.0	1:1	48	S1	5.0109			—	cmc		—	16.9919g		—	
E00-1311-3023	—	Clay	0.0	1:1	48	S1	5.0094			—			—	16.9554g		—	
E00-1311-3024	—	Clay	0.0	1:1	48	S1	4.9742			—			6.5	16.9676g		—	
E00-1311-3024	MS	Clay	0.0	1:1	48	S1	—			—			—	—		20 µL	
E00-1311-3025	—	Clay	0.0	1:5	48	S1	2.5183			—			—	21.9347g		—	
E00-1311-3026	—	Clay	0.0	1:5	48	S1	2.5003			—			—	21.9613g		—	
E00-1311-3027	—	Clay	0.0	1:5	48	S1	2.5121			—			6.5	21.9037g		—	
E00-1311-3027	MS	Clay	0.0	1:5	48	S1	—			—			—	—		20 µL	
E00-1311-3028	—	Clay	0.0	1:25	48	S1	1.0070			—			—	39.5711g		—	
E00-1311-3029	—	Clay	0.0	1:25	48	S1	1.0156			—			—	31.3964g		—	
E00-1311-3030	—	Clay	0.0	1:25	48	S1	0.9996			—			6.5	39.3665g		—	
E00-1311-3030	MS	Clay	0.0	1:25	48	S1	—			—			—	—		20 µL	

1:2 (5)

Soil Type 1 ~~HCAL~~ Clay TRP-00065-77
Soil Type 2 (Sed) TRP-00065-70

Col 8 Balance ID 916
T/D/I 8:30-3PM 11/28/00 Ley

Col 9 CaCl2 Soln ID 00001-38-07
T/D/I 3:30 11/28/00 cmc

~~Col 10~~ (48 hr) Inc. ID I-13
Start T/D/I 9:25 11/30/00 cmc
Stop T/D/I 16:00 12/1/00 cmc

Col 11 Test Subst. ID 00001-31-11
T/D/I 10:20 11/30/00 cmc

Col 12 Inc. ID I-13 (3)
Start T/D/I 3:30 11/28/00 cmc
Stop T/D/I 7:40 11/01/00 cmc

Col 13 T/D/I 10:10 12/1 00 cmc
Col 14 T/D/I 2:00 12/4 00 cmc
Col 15 Balance ID 914
T/D/I 10:45 12/7 00 cmc (5)
Col 16 T/D/I 2:00 12/4 00 cmc
Col 17 Spike Soln ID 00001-32-03 10ppm PFOS
T/D/I 10:00 12/7 00 cmc
Internal Standard ID 00001-32-14 20ppm THPFOS
T/D/I 11:15 12/7 00 cmc

8:30-3PM 11/28/00 Ley incorrect end time

(3)(TE) Conc = 5.0mg/L, not 0.5mg/L cmc 4/19/01

(2)(TE) Prep sheet incorrectly numbered cmc 12/7/00

(4) while waiting for dilution and/or analysis, samples stored under refrigeration in R2 (AC) cmc 4/19/01

(5) All recorded times between 6AM and 6pm (AC) cmc 4/19/01

(6)(AC) 125µL of 500mg/L PFOS spiked into test vessel cmc 5/23/01

(1)(AC) 1:1 Ratio - 50µL of 500mg/L PFOS
No Soil - 125µL "
1:5 Ratio - 125µL "
1:25 Rati - 250µL "
cmc 5/24/01

11/28/00 Ley

GLP Study Number: E00-1311

1 of 6

Optimal Ratio | ETS-8-159 Section 12.5 | Test Substance

Sample ID	Spike	Soil Type	Test Subs. conc., mg/L (3)	Soil:Soln Ratio	HR	Sampling	Soil Weight (grams)	0.01 M CaCl2 Addition	Equilibrate 12 hours	Test Substance Addition (2) (6)	Equilibrate for x hours	centrifuge (Y/N)	pH	Weigh (tube+contents,g (48 hr)	Remove 2.0 mL Study Sample	Add Spike Soln (uL)	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E00-1311-3031	—	Clay	0.5	1:1	0	S1	4.9808	cmc	cmc	cmc	—	cmc	—	—	↑	—	10x Dil. w/ MeOH
E00-1311-3032	—	Clay	0.5	1:1	0	S1	4.9875										TNA-4715
E00-1311-3033	—	Clay	0.5	1:1	0	S1	5.0013						6.5				cmc 12/7/00
E00-1311-3033	MS	Clay	0.5	1:1	0	S1	—									20µL	(AC) Diluted on "Spanky" 4-19-01 cmc
E00-1311-3034	—	Clay	0.5	1:5	0	S1	2.5014										
E00-1311-3035	—	Clay	0.5	1:5	0	S1	2.4953										
E00-1311-3036	—	Clay	0.5	1:5	0	S1	2.5076						6.5				
E00-1311-3036	MS	Clay	0.5	1:5	0	S1	—								cmc 11/30/00	20µL	
E00-1311-3037	—	Clay	0.5	1:25	0	S1	1.0108										
E00-1311-3038	—	Clay	0.5	1:25	0	S1	1.0008										
E00-1311-3039	—	Clay	0.5	1:25	0	S1	1.0234						6.5				
E00-1311-3039	MS	Clay	0.5	1:25	0	S1	—									20µL	
E00-1311-3040	—	Clay	0.5	1:1	2	S1	4.9870										
E00-1311-3041	—	Clay	0.5	1:1	2	S1	4.9841										
E00-1311-3042	—	Clay	0.5	1:1	2	S1	4.9855						6.5				
E00-1311-3042	MS	Clay	0.5	1:1	2	S1	—									20µL	
E00-1311-3043	—	Clay	0.5	1:5	2	S1	2.4985										
E00-1311-3044	—	Clay	0.5	1:5	2	S1	2.4988										
E00-1311-3045	—	Clay	0.5	1:5	2	S1	2.5033						6.5				
E00-1311-3045	MS	Clay	0.5	1:5	2	S1	—								cmc 11/28/00	20µL	
E00-1311-3046	—	Clay	0.5	1:25	2	S1	1.0060										
E00-1311-3047	—	Clay	0.5	1:25	2	S1	1.0012										
E00-1311-3048	—	Clay	0.5	1:25	2	S1	1.0287						6.5				
E00-1311-3048	MS	Clay	0.5	1:25	2	S1	—									20µL	(5)
E00-1311-3049	—	Clay	0.5	1:1	4	S1	5.0033										(6)
E00-1311-3050	—	Clay	0.5	1:1	4	S1	5.0085										
E00-1311-3051	—	Clay	0.5	1:1	4	S1	5.0189						6.5				
E00-1311-3051	MS	Clay	0.5	1:1	4	S1	—									20µL	
E00-1311-3052	—	Clay	0.5	1:5	4	S1	2.5033										
E00-1311-3053	—	Clay	0.5	1:5	4	S1	2.5105										
E00-1311-3054	—	Clay	0.5	1:5	4	S1	2.5006						6.5				
E00-1311-3054	MS	Clay	0.5	1:5	4	S1	—								cmc 11/29/00	20µL	
E00-1311-3055	—	Clay	0.5	1:25	4	S1	1.0074										
E00-1311-3056	—	Clay	0.5	1:25	4	S1	1.0241										
E00-1311-3057	—	Clay	0.5	1:25	4	S1	1.0092						6.5				
E00-1311-3057	MS	Clay	0.5	1:25	4	S1	—									20µL	
E00-1311-3058	—	Clay	0.5	1:1	8	S1	4.9899										
E00-1311-3059	—	Clay	0.5	1:1	8	S1	4.9889										
E00-1311-3060	—	Clay	0.5	1:1	8	S1	4.9922						6.5				
E00-1311-3060	MS	Clay	0.5	1:1	8	S1	—								cmc 11/30/00	20µL	
E00-1311-3061	—	Clay	0.5	1:5	8	S1	2.5043										
E00-1311-3062	—	Clay	0.5	1:5	8	S1	2.5122										
E00-1311-3063	—	Clay	0.5	1:5	8	S1	2.5049						6.5				
E00-1311-3063	MS	Clay	0.5	1:5	8	S1	—								cmc 11/30/00	20µL	
E00-1311-3064	—	Clay	0.5	1:25	8	S1	1.0169										
E00-1311-3065	—	Clay	0.5	1:25	8	S1	1.0084										
E00-1311-3066	—	Clay	0.5	1:25	8	S1	1.0205						6.5				
E00-1311-3066	MS	Clay	0.5	1:25	8	S1	—									20µL	

(1) Test vessels spiked w/ 125µL of 500mg/L PFOS cmc 5/23/01
(2) No Soil: 125µL 500ppm PFOS
1:1 Ratio: 125µL "
1:5 Ratio: 125µL "
1:25 Ratio: 25µL "
cmc 5/29/01

(4) 12 (2)
Soil Type 1 (~~HCAGT~~ Clay) TLR-00065-77
Soil Type 2 (Sed) TLR-00065-70

Col 8 Balance ID 916
T/D/I 8:30-4PM 11/28/00 Leg (1)
Col 9 CaCl2 Soln ID ~~cmc 33-07~~ (4)
T/D/I 8:30 11/28/00 cmc

Col 10 (2 hr) Inc. ID I-13
Start T/D/I 10:30 11/29/00 cmc
Stop T/D/I 12:30 11/29/00 cmc
Col 10 (4 hr) Inc. ID I-13
Start T/D/I 10:00 11/29/00 cmc
Stop T/D/I 2:00 11/29/00 cmc
Col 10 (8 hr) Inc. ID I-13
Start T/D/I 1:00 11/30/00 cmc
Stop T/D/I 5:00 11/30/00 cmc

Col 11 Test Subst. ID 00001-31-11
T/D/I 10:00 11/30/00 cmc
(5) Col 12 Inc. ID I-13
Start T/D/I 3:30 11/28/00 cmc
Stop T/D/I 7:40 11/30/00 cmc
Col 13 T/D/I 12:30 12/1/00 cmc
Col 14 T/D/I 12:00 12/4/00 cmc
Col 15 Balance ID 914
T/D/I 10:45 12/1/00 cmc
Col 16 T/D/I 3:15 11/30/00 cmc
Col 17 Spike Soln ID 00001-32-63 10ppm PFOS
T/D/I 10:00 12/7/00 cmc
Internal Standard ID 00001-32-41 20ppm THPFOS
T/D/I 11:15 12/7/00 cmc

500ppm (PE) cmc 5/28/01 PFOS in 0.01 M CaCl2 conc

added 12.5µL THPFOS 00001-32-41 20ppm THPFOS Dil 05 Incorrect data Shaker: LS 01/03/01

(1) 8:30-3 PM 11/28/00 Leg incorrect end time

(2)(TE) Rep Sheet incorrectly numbered 12/7/00 cmc

(3)(TE) Conc = 5.0 mg/L 4/19/01 cmc

GLP Study Number:

(4)(PE) 00001-33-07 cmc 4/19/01

(5) While waiting for dilution and/or analysis, samples stored under Refrigeration in R-2 (AC) cmc 4/19/01

(6) All Recorded times are between 6AM and 6PM (AC) cmc 4/19/01

11/28/00 LS

2 of 6

Optimal Ratio | ETS-8-159 Section 12.5 | Test Substance

Sample ID	Spike	Soil Type	Test Subs. conc., mg/L (3)	Soil:Soln Ratio	HR	Sampling	Soil Weight (grams)	0.01 M CaCl2 Addition	Equilibrate 12 hours	Test Substance Addition (6) (7)	Equilibrate for x hours	centrifuge (Y/N)	pH	Weigh tube+contents,g (48 hr)	Remove 1.0 mL Study Sample	Add Spike Soln (uL)	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E00-1311-3067	—	Clay	~~0.5~~	1:1	16	S1	4.9971	cmc	cmc	cmc	cmc	cmc	—	—		—	(AC) Dil w/ MeOH TNA-4715 cmc 12/7/00
E00-1311-3068	—	Clay	~~0.5~~	1:1	16	S1	5.0035						—	—		—	
E00-1311-3069	—	Clay	~~0.5~~	1:1	16	S1	4.9949						6.5	—		—	
E00-1311-3069	MS	Clay	~~0.5~~	1:1	16	S1	—						—	—		20µL	(AC) Diluted on "Spanky" cmc 4-19-01
E00-1311-3070	—	Clay	~~0.5~~	1:5	16	S1	2.5241						—	—		—	
E00-1311-3071	—	Clay	~~0.5~~	1:5	16	S1	2.4968						—	—		—	
E00-1311-3072	—	Clay	~~0.5~~	1:5	16	S1	2.5000						6.5	—		—	
E00-1311-3072	MS	Clay	~~0.5~~	1:5	16	S1	—						—	—		20µL	
E00-1311-3073	—	Clay	~~0.5~~	1:25	16	S1	1.0142						—	—	cmc 11/30/00	—	
E00-1311-3074	—	Clay	~~0.5~~	1:25	16	S1	0.9964						—	—		—	
E00-1311-3075	—	Clay	~~0.5~~	1:25	16	S1	0.9941						6.5	—		—	
E00-1311-3075	MS	Clay	~~0.5~~	1:25	16	S1	—						—	—		20µL	
E00-1311-3076	—	Clay	~~0.5~~	1:1	24	S1	5.0128						—	—		—	
E00-1311-3077	—	Clay	~~0.5~~	1:1	24	S1	4.9963						—	—		—	
E00-1311-3078	—	Clay	~~0.5~~	1:1	24	S1	4.9738						6.5	—		—	
E00-1311-3078	MS	Clay	~~0.5~~	1:1	24	S1	—						—	—		20µL	
E00-1311-3079	—	Clay	~~0.5~~	1:5	24	S1	2.4865						—	—		—	
E00-1311-3080	—	Clay	~~0.5~~	1:5	24	S1	2.5080						—	—		—	
E00-1311-3081	—	Clay	~~0.5~~	1:5	24	S1	2.4973						6.5	—	cmc 11/30/00	—	(4)
E00-1311-3081	MS	Clay	~~0.5~~	1:5	24	S1	—						—	—		20µL	(5)
E00-1311-3082	—	Clay	~~0.5~~	1:25	24	S1	1.0094						—	—		—	
E00-1311-3083	—	Clay	~~0.5~~	1:25	24	S1	1.0099						—	—		—	
E00-1311-3084	—	Clay	~~0.5~~	1:25	24	S1	0.9875						6.5	—		—	
E00-1311-3084	MS	Clay	~~0.5~~	1:25	24	S1	—						—	—		20µL	
E00-1311-3085	—	Clay	~~0.5~~	1:1	36	S1	4.9761						—	—		—	
E00-1311-3086	—	Clay	~~0.5~~	1:1	36	S1	4.9910						—	—		—	
E00-1311-3087	—	Clay	~~0.5~~	1:1	36	S1	5.0091						6.5	—		—	
E00-1311-3087	MS	Clay	~~0.5~~	1:1	36	S1	—						—	—		20µL	
E00-1311-3088	—	Clay	~~0.5~~	1:5	36	S1	2.5190						—	—		—	
E00-1311-3089	—	Clay	~~0.5~~	1:5	36	S1	2.5308						—	—		—	
E00-1311-3090	—	Clay	~~0.5~~	1:5	36	S1	2.4877						6.5	—		—	
E00-1311-3090	MS	Clay	~~0.5~~	1:5	36	S1	—						—	—		20µL	
E00-1311-3091	—	Clay	~~0.5~~	1:25	36	S1	1.0140						—	—		—	
E00-1311-3092	—	Clay	~~0.5~~	1:25	36	S1	0.9940						—	—		—	
E00-1311-3093	—	Clay	~~0.5~~	1:25	36	S1	1.0192						6.5	—		—	
E00-1311-3093	MS	Clay	~~0.5~~	1:25	36	S1	—						—	—		20µL	
E00-1311-3094	—	Clay	~~0.5~~	1:1	48	S1	5.0086						—	17.0385g		—	
E00-1311-3095	—	Clay	~~0.5~~	1:1	48	S1	4.9899						—	17.0382g		—	
E00-1311-3096	—	Clay	~~0.5~~	1:1	48	S1	5.0096						6.5	16.9985g		—	
E00-1311-3096	MS	Clay	~~0.5~~	1:1	48	S1	—						—	—		20µL	
E00-1311-3097	—	Clay	~~0.5~~	1:5	48	S1	2.4825						—	22.0116g		—	
E00-1311-3098	—	Clay	~~0.5~~	1:5	48	S1	2.5174						—	22.0540g		—	
E00-1311-3099	—	Clay	~~0.5~~	1:5	48	S1	2.4857						6.5	22.1020g	cmc 12/1/00	—	
E00-1311-3099	MS	Clay	~~0.5~~	1:5	48	S1	—						—	—		20µL	
E00-1311-3100	—	Clay	~~0.5~~	1:25	48	S1	0.9944						—	21.2590g		—	
E00-1311-3101	—	Clay	~~0.5~~	1:25	48	S1	0.9859						—	21.6046g		—	
E00-1311-3102	—	Clay	~~0.5~~	1:25	48	S1	1.0121						6.5	21.6875g		—	
E00-1311-3102	MS	Clay	0.5	1:25	48	S1	—						—	—		20µL	

(1) While waiting for dilution and/or analysis samples stored under refrigeration in R-2 (AC) cmc 4/19/01

(5) All recorded times are between 6am and 6pm (AC) cmc 4/19/01

(6)(AC) Test vessels spiked w/125µL of 500mg/L PFOS cmc 5/23/01

(AC) cmc 5/23/01

(AC) cmc 5/25/01

(AC) cmc 5/25/01

(AC) cmc 5/25

Optimal Ratio | ETS-8-159 Section 12.5 | Test Substance

Sample ID	Spike	Soil Type	Test Subs. conc., mg/L (2)	Soil:Soln Ratio	HR	Sampling	Soil Weight (grams)	0.01 M CaCl2 Addition	Equilibrate 12 hours	Test Substance addition (5)	Equilibrate for x hours	centrifuge (Y/N)	pH	Weigh tube+contents,g (48 hr)	Remove 1.0(2) mL Study Sample	Add Spike Soln (uL)	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E00-1311-3103	—	Sed	0.5	1:1	0	S1	4.9896	cmc	cmc	cmc	—	cmc	—		—	—	10x Dilution w/ MeOH TNA-4715 cmc 12/7/00
E00-1311-3104	—	Sed	0.5	1:1	0	S1	4.9773										
E00-1311-3105	—	Sed	0.5	1:1	0	S1	4.9839						6.0				
E00-1311-3105	MS	Sed	0.5	1:1	0	S1	—									20µL	(PC) Diluted on "Spanky" cmc 4-19-01
E00-1311-3106	—	Sed	0.5	1:5	0	S1	2.4955										
E00-1311-3107	—	Sed	0.5	1:5	0	S1	2.4755										
E00-1311-3108	—	Sed	0.5	1:5	0	S1	2.4936						6.0				
E00-1311-3108	MS	Sed	0.5	1:5	0	S1	—								cmc 12/1/00	20µL	
E00-1311-3109	—	Sed	0.5	1:25	0	S1	1.0042										
E00-1311-3110	—	Sed	0.5	1:25	0	S1	1.0199										
E00-1311-3111	—	Sed	0.5	1:25	0	S1	1.0328						6.0				
E00-1311-3111	MS	Sed	0.5	1:25	0	S1	—									20µL	
E00-1311-3112	—	Sed	0.5	1:1	2	S1	4.9948				cmc						
E00-1311-3113	—	Sed	0.5	1:1	2	S1	4.9805										
E00-1311-3114	—	Sed	0.5	1:1	2	S1	5.0074						6.5				
E00-1311-3114	MS	Sed	0.5	1:1	2	S1	—									20µL	(3)
E00-1311-3115	—	Sed	0.5	1:5	2	S1	2.5206										
E00-1311-3116	—	Sed	0.5	1:5	2	S1	2.5095										
E00-1311-3117	—	Sed	0.5	1:5	2	S1	2.5321						6.0				(4)
E00-1311-3117	MS	Sed	0.5	1:5	2	S1	—								11/28/00 cmc	20µL	
E00-1311-3118	—	Sed	0.5	1:25	2	S1	1.0250										
E00-1311-3119	—	Sed	0.5	1:25	2	S1	1.0170										
E00-1311-3120	—	Sed	0.5	1:25	2	S1	1.0323						6.5				
E00-1311-3120	MS	Sed	0.5	1:25	2	S1	—									20µL	
E00-1311-3121	—	Sed	0.5	1:1	4	S1	4.9838										
E00-1311-3122	—	Sed	0.5	1:1	4	S1	5.0081										
E00-1311-3123	—	Sed	0.5	1:1	4	S1	5.0211						6.5				
E00-1311-3123	MS	Sed	0.5	1:1	4	S1	—									20µL	
E00-1311-3124	—	Sed	0.5	1:5	4	S1	2.4986										
E00-1311-3125	—	Sed	0.5	1:5	4	S1	2.5012										
E00-1311-3126	—	Sed	0.5	1:5	4	S1	2.5337						6.5				
E00-1311-3126	MS	Sed	0.5	1:5	4	S1	—								11/28/00 cmc	20µL	
E00-1311-3127	—	Sed	0.5	1:25	4	S1	1.0078										
E00-1311-3128	—	Sed	0.5	1:25	4	S1	1.0434										
E00-1311-3129	—	Sed	0.5	1:25	4	S1	1.0216						6.5				
E00-1311-3129	MS	Sed	0.5	1:25	4	S1	—									20µL	
E00-1311-3130	—	Sed	0.5	1:1	8	S1	4.9982										
E00-1311-3131	—	Sed	0.5	1:1	8	S1	4.9924										
E00-1311-3132	—	Sed	0.5	1:1	8	S1	4.9791						7.0				
E00-1311-3132	MS	Sed	0.5	1:1	8	S1	—								11/30/00 cmc 3:45-4:15 PM	20µL	
E00-1311-3133	—	Sed	0.5	1:5	8	S1	2.5091										
E00-1311-3134	—	Sed	0.5	1:5	8	S1	2.5067										
E00-1311-3135	—	Sed	0.5	1:5	8	S1	2.5004						6.5				
E00-1311-3135	MS	Sed	0.5	1:5	8	S1	—									20µL	
E00-1311-3136	—	Sed	0.5	1:25	8	S1	1.0041										
E00-1311-3137	—	Sed	0.5	1:25	8	S1	1.0303										
E00-1311-3138	—	Sed	0.5	1:25	8	S1	1.0232						TJ				
E00-1311-3138	MS	Sed	0.5	1:25	8	S1	—									20µL	(6) AC No Soil: 125µL 50ppm PFOS 1:1 Ratio: 50µL " " " 1:5 Ratio: 125µL " " " 1:25 Ratio: 250µL " " " cmc 5/29/01

(3) While waiting for dilution and/or analysis samples stored under refrigeration in 2-2 (AC) cmc 4/19/01

(4) All recorded times are between 6am and 6pm (AC) cmc 4/19/01

(5) (AC) Test vessels spiked w/ 125µL of 500 mg/L PFOS cmc 5/23/01

Soil Type 1 (HCl): Clay TLR-00065-77

Soil Type 2 (Sed): TLR-00065-70

Col 8 Balance ID 916

T/D/I 8:30-3PM / 11/28/00 cmc

Col 9 CaCl2 Soln ID 00001-33-07

T/D/I 8:30 11/28/00 cmc

(1) (TE) Prep sheet incorrectly numbered cmc 12/1/00

(2) (TE) Conc = 5.0 mg/L 4/19/01 cmc

12 (1)

Col 10 (2 hr) Inc. ID I-13

Start T/D/I 10:30 11/29/00 cmc

Stop T/D/I 12:30 11/29/00 cmc

12 (1)

Col 10 (4 hr) Inc. ID I-13

Start T/D/I 10:00 11/29/00 cmc

Stop T/D/I 12:00 11/29/00 cmc

12 (1)

Col 10 (8 hr) Inc. ID I-13

Start T/D/I 1:00 11/30/00 cmc

Stop T/D/I 3:00 11/30/00 cmc

Col 11 Test Subst. ID 00001-31-11

(1) T/D/I 10:30 11/30/00 cmc

Col 12 Inc. ID I-13

Start T/D/I 8:30 11/28/00 cmc

Stop T/D/I 7:40 11/29/00 cmc

Col 13 T/D/I 10:10 12/1/00 cmc

Col 14 T/D/I 12:00 12/1/00 cmc

Col 15 MeOH Dilm Soln ID

(1) T/D/I

Col 15 Balance ID 914

T/D/I 10:45 12/1/00 cmc

(1) Col 17 T/D/I

Col 16 Spike Soln ID 00001-32-03 10ppm PFOS

T/D/I 10:00 12/1/00 cmc

Internal Std: 00001-32-14 20ppm THPFOS

11:15 12/1/00 cmc

recalculated

11/28/00 cmc

GLP Study Number:

Optimal Ratio ETS-8-159 Section 12.5 Test Substance

1 Sample ID	2 Spike	3 Soil Type	4 Test Subs. conc., mg/L	5 Soil:Soln Ratio	6 HR	7 Sampling	8 Soil Weight (grams)	9 0.01 M CaCl2 Addition	10 Equilibrate 12 hours	11 Test Substance Addition	12 Equilibrate for x hours	13 centrifuge (Y/N)	14 pH	15 Weigh tube+contents,g (48 hr)	16 Remove mL Study Sample	17 Add Spike Soln (uL)	18 Comments
E00-1311-3139	—	Sed	0.5	1:1	16	S1	4.9919	cmc	cmc	cmc	cmc	cmc	—	—	—	—	10x Dil w/ MeOH TNT-4715 cmc 12/7/00
E00-1311-3140	—	Sed	0.5	1:1	16	S1	4.9916						—	—	—	—	
E00-1311-3141	—	Sed	0.5	1:1	16	S1	4.9975						7.0	—	—	—	
E00-1311-3141	MS	Sed	0.5	1:1	16	S1	—						—	—	—	20uL	(AC) Diluted on "Spanky" cmc 4-19-01
E00-1311-3142	—	Sed	0.5	1:5	16	S1	2.5007						—	—	—	—	
E00-1311-3143	—	Sed	0.5	1:5	16	S1	2.5048						—	—	—	—	
E00-1311-3144	—	Sed	0.5	1:5	16	S1	2.5052						6.5	—	—	—	
E00-1311-3144	MS	Sed	0.5	1:5	16	S1	—						—	—	—	20uL	
E00-1311-3145	—	Sed	0.5	1:25	16	S1	1.0177						—	—	—	—	
E00-1311-3146	—	Sed	0.5	1:25	16	S1	1.0168						—	—	—	—	
E00-1311-3147	—	Sed	0.5	1:25	16	S1	1.0115						7.0	—	—	—	
E00-1311-3147	MS	Sed	0.5	1:25	16	S1	—						—	—	—	20uL	
E00-1311-3148	—	Sed	0.5	1:1	24	S1	5.0230						—	—	—	—	(5)
E00-1311-3149	—	Sed	0.5	1:1	24	S1	4.9876						—	—	—	—	
E00-1311-3150	—	Sed	0.5	1:1	24	S1	4.9945						7.0	—	—	—	(6)
E00-1311-3150	MS	Sed	0.5	1:1	24	S1	—						—	—	—	20uL	
E00-1311-3151	—	Sed	0.5	1:5	24	S1	2.4956						—	—	—	—	
E00-1311-3152	—	Sed	0.5	1:5	24	S1	2.4987						—	—	—	—	
E00-1311-3153	—	Sed	0.5	1:5	24	S1	2.5083						7.0	—	—	—	
E00-1311-3153	MS	Sed	0.5	1:5	24	S1	—						—	—	—	20uL	
E00-1311-3154	—	Sed	0.5	1:25	24	S1	0.9973						—	—	—	—	
E00-1311-3155	—	Sed	0.5	1:25	24	S1	1.0196						—	—	—	—	
E00-1311-3156	—	Sed	0.5	1:25	24	S1	0.9876						6.5	—	—	—	
E00-1311-3156	MS	Sed	0.5	1:25	24	S1	—						—	—	—	20uL	
E00-1311-3157	—	Sed	0.5	1:1	36	S1	5.0122						—	—	—	—	
E00-1311-3158	—	Sed	0.5	1:1	36	S1	4.9766						—	—	—	—	
E00-1311-3159	—	Sed	0.5	1:1	36	S1	4.9828						7.0	—	—	—	
E00-1311-3159	MS	Sed	0.5	1:1	36	S1	—						—	—	—	20uL	
E00-1311-3160	—	Sed	0.5	1:5	36	S1	2.5033						—	—	—	—	
E00-1311-3161	—	Sed	0.5	1:5	36	S1	2.4922						—	—	—	—	
E00-1311-3162	—	Sed	0.5	1:5	36	S1	2.5365						7.0	—	—	—	
E00-1311-3162	MS	Sed	0.5	1:5	36	S1	—						—	—	—	20uL	
E00-1311-3163	—	Sed	0.5	1:25	36	S1	1.0254						—	—	—	—	
E00-1311-3164	—	Sed	0.5	1:25	36	S1	1.0315						—	—	—	—	
E00-1311-3165	—	Sed	0.5	1:25	36	S1	1.0217						7.0	—	—	—	
E00-1311-3165	MS	Sed	0.5	1:25	36	S1	—						—	—	—	20uL	
E00-1311-3166	—	Sed	0.5	1:1	48	S1	4.9873						—	17.0136g	—	—	
E00-1311-3167	—	Sed	0.5	1:1	48	S1	5.0037						—	17.0241g	—	—	
E00-1311-3168	—	Sed	0.5	1:1	48	S1	4.9857						7.0	16.9635g	—	—	
E00-1311-3168	MS	Sed	0.5	1:1	48	S1	—						—	—	—	20uL	
E00-1311-3169	—	Sed	0.5	1:5	48	S1	2.4993						—	22.0654g	—	—	
E00-1311-3170	—	Sed	0.5	1:5	48	S1	2.4954						—	22.0199g	—	—	
E00-1311-3171	—	Sed	0.5	1:5	48	S1	2.5008						7.0	21.9835g	—	—	
E00-1311-3171	MS	Sed	0.5	1:5	48	S1	—						—	—	—	20uL	
E00-1311-3172	—	Sed	0.5	1:25	48	S1	0.9966						—	39.5250g	—	—	
E00-1311-3173	—	Sed	0.5	1:25	48	S1	1.0382						—	39.4861g	—	—	
E00-1311-3174	—	Sed	0.5	1:25	48	S1	1.0067						7.0	39.4697g	—	—	
E00-1311-3174	MS	Sed	0.5	1:25	48	S1	—						—	—	—	20uL	

(5) While waiting for dilution and/or analysis samples stored under refrigeration in R-2 (AC) cmc 4-19-01

(6) All recorded times are between 6am and 6pm (AC) cmc 4-19-01

(AC) Test vessels spiked w/ 125uL of 500mg/L PFOS cmc 5/23/01

(8) No Soil: 125uL 500ppm PFOS; 1g Soil: 50uL "; 0.5g Soil: 25uL "; 0.25g Soil: 12.5uL "; 0.125g Soil: 6.25uL " cmc 5/29/01

Soil Type 1 (HGLC) Clay TIR-00065-77

Soil Type 2 (Sed) TIR-00065-70

Col 8 Balance ID 916

T/D/I 8:30-3PM 11/28/00 Lg

Col 9 CaCl2 Soln ID 00001-33-07

T/D/I 3:30 11/28/00 cmc

Col 10 (16 hr) Inc. ID I-13

Start T/D/I 7:00 11/28/00 cmc

Stop T/D/I 6:30 11/30/00 cmc

Col 10 (24 hr) Inc. ID I-13

Start T/D/I 9:45 11/29/00 cmc

Stop T/D/I 11:45 11/30/00 cmc

Col 10 (36 hr) Inc. ID I-13

Start T/D/I 6:45 11/30/00 cmc

Stop T/D/I 2:30 12/1/00 cmc

Col 10 (48 hr) Inc. ID I-13

Start T/D/I 9:40 11/29/00 cmc

Stop T/D/I 10:00 12/1/00 cmc

Col 11 Test Subst. ID 00001-31-11

T/D/I 11:30 11/30/00 cmc

Col 12 Inc. ID I-13

Start T/D/I 3:30 11/28/00 cmc

Stop T/D/I 7:40 11/29/00 cmc

Col 13 T/D/I 10:10 12/1/00 cmc

Col 14 T/D/I 12:00 12/1/00 cmc

Col 16 MeOH Dil'n Soln ID

T/D/I

Col 15 Balance ID 914

T/D/I 10:45 12/1/00 cmc

Col 17 T/D/I

Col 18 Spike Soln ID 00001-32-03 10ppm PFOS

T/D/I 10:00 12/7/00 cmc

Internal Std: 00001-32-14 20ppm THPFOS 11:15 12/7/00 cmc

36 hr PFOS removed 2:45 PM 12-1-00 Lg

(2) (3) (4) cmc 11/28/00

(3) (AC) Stop 2:45pm 12/1/00 cmc

GLP Study Number:

(3) (E) Prep sheet incorrectly numbered 12/7/00 cmc

(1) (D) (E) Conc. = 5.0mg/L cmc 4/19/01

6 11/28/00 Lg

5 of 5

Optimal Ratio ETS-8-159 Section 12.5 PFOS Test Substance

Sample ID	Spike	Soil Type	Test Subs. conc., mg/L	Soil:Soln Ratio	HR	Sampling	Soil Weight (grams)	0.01 M CaCl2 Addition	Equilibrate 12 hours	Test Substance Addition	Equilibrate for x hours	centrifuge (Y/N)	pH	Weigh tube+contents,g (48 hr)	Remove 1.0 mL Study Sample	Add Spike Soln (uL)	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E00-1311-3175	—	Sed	0.0	1:1	0	S1	4.9845	cmc	cmc	—	—	cmc	—	—		—	10x Dil. w/ MeOH
E00-1311-3176	—	Sed	0.0	1:1	0	S1	4.9838			—	—		—	—		—	TNA-4715
E00-1311-3177	—	Sed	0.0	1:1	0	S1	4.9818			—	—		6.0	—		—	cmc 12/7/00
E00-1311-3177	MS	Sed	0.0	1:1	0	S1	—			—	—		—	—		20µL	(AC) Diluted on "Sprinky" cmc 4-19-01
E00-1311-3178	—	Sed	0.0	1:5	0	S1	2.4905			—	—		—	—		—	
E00-1311-3179	—	Sed	0.0	1:5	0	S1	2.5005			—	—		—	—		—	
E00-1311-3180	—	Sed	0.0	1:5	0	S1	2.4958			—	—		6.0	—		—	
E00-1311-3180	MS	Sed	0.0	1:5	0	S1	—			—	—		—	—		20µL	(2)
E00-1311-3181	—	Sed	0.0	1:25	0	S1	1.0371			—	—		—	—	12/11/00	—	(3)
E00-1311-3182	—	Sed	0.0	1:25	0	S1	1.0209			—	—		—	—		—	
E00-1311-3183	—	Sed	0.0	1:25	0	S1	1.0103			—	—		6.0	—		—	
E00-1311-3183	MS	Sed	0.0	1:25	0	S1	—			—	—		—	—		20µL	
E00-1311-3184	—	Sed	0.0	1:1	48	S1	4.9759			—	cmc		—	16.9470g	cmc	—	
E00-1311-3185	—	Sed	0.0	1:1	48	S1	4.9804			—			—	16.9885g		—	
E00-1311-3186	—	Sed	0.0	1:1	48	S1	4.9742			—			7.0	16.9058g		—	
E00-1311-3186	MS	Sed	0.0	1:1	48	S1	—			—			—	—		20µL	
E00-1311-3187	—	Sed	0.0	1:5	48	S1	2.4910			—			—	21.9603g		—	
E00-1311-3188	—	Sed	0.0	1:5	48	S1	2.4906			—			—	21.8603g		—	
E00-1311-3189	—	Sed	0.0	1:5	48	S1	2.5176			—			7.0	21.9621g		—	
E00-1311-3189	MS	Sed	0.0	1:5	48	S1	—			—			—	—		20µL	
E00-1311-3190	—	Sed	0.0	1:25	48	S1	1.0016			—			—	39.4824g		—	
E00-1311-3191	—	Sed	0.0	1:25	48	S1	1.0313			—			—	39.4155g		—	
E00-1311-3192	—	Sed	0.0	1:25	48	S1	1.0052			—			7.0	39.4900g		—	
E00-1311-3192	MS	Sed	0.0	1:25	48	S1	—			—			—	—		20µL	

Soil Type 1 (HC/LO) ———

Soil Type 2 (Sed) TTR-00065-70

Col 8 Balance ID 916

T/D/I 8:30-3 PM / 11/28/00 Leg

Col 9 CaCl2 Soln ID 00001-53-07

T/D/I 3:30 11/28/00 cmc

Col 10 (12) (48 hr) Inc. ID I-13

Start T/D/I 9:40 11/27/00 cmc

Stop T/D/I 10:00 12/1/00 cmc

Col 11 Test Subst. ID 00001-31-11

T/D/I N.A. → / /

Col 12 (1) Inc. ID I-13

Start T/D/I 3:30 11/28/00 cmc

Stop T/D/I 7:40 11/28/00 cmc

Col 13 T/D/I 10:10 12/1/00 cmc

Col 14 T/D/I 12:00 12/1/00 cmc

Col 15 Balance ID 914

T/D/I 10:45 12/1/00 cmc

Col 16 T/D/I 2:00 12/1/00 cmc

Col 17 Spike Soln ID 00001-32-03 10ppm PFOS

T/D/I 10:06 12/7/00 cmc

Internal Standard ID 00001-32-14 20 ppm THPFOS

T/D/I 11:15 12/7/00 cmc

(1) (TE) Prep sheet numbered incorrectly cmc 12/2/00

(2) while waiting for dilution and/or analysis samples stored under refrigeration in R-2 (AC) cmc 4-19-01

(3) All recorded times are between 6am and 6pm (AC) cmc 4-19-01

4-19-01 cmc

6 of 6 11/28/00 Leg

Optimal Ratio/Mass Balance — ETS-8-159 Section 12.5 (cont.) — Test Substance: PFOS

Sample ID	Spike	Soil Type	Test Subs. conc., mg/L	Soil:Soln Ratio	HR	Sampling	(2) Remove aqueous and weigh tube+contents, g	MeOH Addition, record mLs (2.0 or 3.0 mL)	Centrifuge and transfer	MeOH Addition, record mLs (2.0 or 3.0 mL)	Centrifuge and transfer	MeOH Addition, record mLs (2.0 or 3.0 mL)	Centrifuge and transfer	1.00 mL Study Sample	Add Spike Soln (uL)	Comments (3)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18
E00-1311-3007	---	---	0.0	NA	48	S2	6.9226	(2)		(2)		(2)				Samples Dil. 10x w/ MeOH INH-4740 1/31/01 CMC
E00-1311-3008	---	---	0.0	NA	48	S2	6.8987	(2)		(2)		(2)				
E00-1311-3009	---	---	0.0	NA	48	S2	6.9610	(2)		(2)		(2)				
E00-1311-3009	MS	---	0.0	NA	48	S2		(2)		(2)		(2)			20uL	(AC) Diluted on "Spanky" CMC 4-19-01
E00-1311-3010	---	---	0.5	NA	48	S2	6.9207	(2)		(2)		(2)				
E00-1311-3011	---	---	0.5	NA	48	S2	6.9355	(2)		(2)		(2)				
E00-1311-3012	---	---	0.5	NA	48	S2	6.9136	(2)		(2)		(2)				
E00-1311-3012	MS	---	0.5	NA	48	S2		(2)		(2)		(2)			20uL	
E00-1311-3022	---	Clay	0.0	1:1	48	S2	14.7587	(3)		(3)	A	(3)	A			
E00-1311-3023	---	Clay	0.0	1:1	48	S2	15.1438	(3)		(3)		(3)				
E00-1311-3024	---	Clay	0.0	1:1	48	S2	15.3056	(3)		(3)		(3)				
E00-1311-3024	MS	Clay	0.0	1:1	48	S2		(3)		(3)		(3)			20uL	
E00-1311-3025	---	Clay	0.0	1:5	48	S2	11.0772	(2)		(2)		(2)				
E00-1311-3026	---	Clay	0.0	1:5	48	S2	11.0631	(2)		(2)		(2)				
E00-1311-3027	---	Clay	0.0	1:5	48	S2	11.0203	(2)		(2)		(2)				
E00-1311-3027	MS	Clay	0.0	1:5	48	S2		(2)		(2)		(2)			20uL	
E00-1311-3028	---	Clay	0.0	1:25	48	S2	15.6032	(2)		(2)		(2)				
E00-1311-3029	---	Clay	0.0	1:25	48	S2	15.5490	(2)		(2)		(2)				
E00-1311-3030	---	Clay	0.0	1:25	48	S2	15.4430	(2)		(2)		(2)				
E00-1311-3030	MS	Clay	0.0	1:25	48	S2		(2)		(2)		(2)			20uL	
E00-1311-3094	---	Clay	0.5	1:1	48	S2	14.6786	(3)		(3)		(3)				
E00-1311-3095	---	Clay	0.5	1:1	48	S2	15.2292	(3)		(3)		(3)				
E00-1311-3096	---	Clay	0.5	1:1	48	S2	15.5256	(3)		(3)		(3)				
E00-1311-3096	MS	Clay	0.5	1:1	48	S2		(3)		(3)		(3)			20uL	
E00-1311-3097	---	Clay	0.5	1:5	48	S2	11.0207	(2)		(2)		(2)				
E00-1311-3098	---	Clay	0.5	1:5	48	S2	11.0974	(2)		(2)		(2)				
E00-1311-3099	---	Clay	0.5	1:5	48	S2	11.0301	(2)		(2)		(2)				} tube broke Lg 12/7/00
E00-1311-3099	MS	Clay	0.5	1:5	48	S2		(2)		(2)		(2)			20uL	
E00-1311-3100	---	Clay	0.5	1:25	48	S2	15.4564Q	(2)		(2)		(2)				15.2794
E00-1311-3101	---	Clay	0.5	1:25	48	S2	15.3926Q	(2)		(2)		(2)				15.1305
E00-1311-3102	---	Clay	0.5	1:25	48	S2	15.2810	(2)		(2)		(2)				
E00-1311-3102	MS	Clay	0.5	1:25	48	S2		(2)		(2)		(2)			20uL	
E00-1311-3166	---	Sed	0.5	1:1	48	S2	14.1383	(3)		(3)		(3)				
E00-1311-3167	---	Sed	0.5	1:1	48	S2	14.1133	(3)		(3)		(3)				
E00-1311-3168	---	Sed	0.5	1:1	48	S2	13.6745	(3)		(3)		(3)				
E00-1311-3168	MS	Sed	0.5	1:1	48	S2		(3)		(3)		(3)			20uL	
E00-1311-3169	---	Sed	0.5	1:5	48	S2	10.4765	(2)		(2)		(2)				
E00-1311-3170	---	Sed	0.5	1:5	48	S2	10.7848	(2)		(2)		(2)				
E00-1311-3171	---	Sed	0.5	1:5	48	S2	10.4218	(2)		(2)		(2)				
E00-1311-3171	MS	Sed	0.5	1:5	48	S2		(2)		(2)		(2)			20uL	
E00-1311-3172	---	Sed	0.5	1:25	48	S2	15.1231Q	(2)		(2)		(2)				14.9582
E00-1311-3173	---	Sed	0.5	1:25	48	S2	14.9463Q	(2)		(2)		(2)				14.8855
E00-1311-3174	---	Sed	0.5	1:25	48	S2	14.8028	(2)		(2)		(2)				
E00-1311-3174	MS	Sed	0.5	1:25	48	S2		(2)		(2)		(2)			20uL	

Col 8 Balance ID 9/16
T/D/I Lg 12:30/12/4/00
Col 9 MeOH ID TN-A-4740
T/D/I see above Lg 12/5/00
Col 10 T/D/I see above Lg 12/5/00
Col 11 MeOH ID TN-A-4740
T/D/I see above Lg 12/5/00
Col 12 T/D/I see above Lg 12/5/00

Col 13 MeOH ID TN-A-4740
T/D/I see above Lg 12/5/00
Col 14 T/D/I see above Lg 12/5/00
Col 15 T/D/I see above Lg 12/7/00
Col 16 Spike Soln ID 00005-147 10ppm PFOS
T/D/I 2:00 1/3/01 CMC
Internal Standard ID 00001-32-14 20ppm THPFOS 12.5mL
T/D/I Lg 01/03/01

(1) Incorrect samples were weighed. Lg 12/4/00

(2) Samples stored in prep lab at Room Temp until extraction began (AC) CMC 4-19-01
(3) Samples stored under refrigeration until dilution and/or analysis occurred (cooler R-2) (AC) CMC 4-19-01
GLP Study Number: EEC-1311

Optimal Ratio/Mass Balance — ETS-8-159 Section 12.5 (cont.) — Test Substance: PFOS

Sample ID	Spike	Soil Type	Test Subs. conc., mg/L	Soil:Soln Ratio	HR	Sampling	(1) Remove aqueous and weigh tube+contents, g	MeOH Addition, record mLs (2.0 or 3.0 mL)	Centrifuge and Transfer	MeOH Addition, record mLs (2.0 or 3.0 mL)	Centrifuge and Transfer	MeOH Addition, record mLs (2.0 or 3.0 mL)	Centrifuge and Transfer	1.00 mL Study Sample	Add Spike Soln (uL)	Comments (2)
E00-1311-3184	---	Sed	0	1:1	48	S2	13.6980	(2)		(2)		(2)				Samples Diluted 10x w/ MeOH/TMA-4740 cmc 1/3/01
E00-1311-3185	---	Sed	0	1:1	48	S2	14.1128	(2)		(2)		(2)				
E00-1311-3186	---	Sed	0	1:1	48	S2	14.1169	(2)		(2)		(2)				
E00-1311-3186	MS	Sed	0	1:1	48	S2		(2)		(2)		(2)			2µL	(AC) Diluted on "Sparky" cmc 4-19-01
E00-1311-3187	---	Sed	0	1:5	48	S2	10.8942	(2)		(2)		(2)				
E00-1311-3188	---	Sed	0	1:5	48	S2	10.7555	(2)		(2)		(2)				
E00-1311-3189	---	Sed	0	1:5	48	S2	10.8022	(2)		(2)		(2)				
E00-1311-3189	MS	Sed	0	1:5	48	S2		(2)		(2)		(2)			2µL	
E00-1311-3190	---	Sed	0	1:25	48	S2	15.0542	(2)		(2)		(2)				
E00-1311-3191	---	Sed	0	1:25	48	S2	15.1292	(2)		(2)		(2)				
E00-1311-3192	---	Sed	0	1:25	48	S2	15.0446	(2)		(2)		(2)				
E00-1311-3192	MS	Sed	0	1:25	48	S2		(2)		(2)		(2)			2µL	

Col 8 Balance ID 916
T/D/I Lg 1:30 12/4/00

Col 9 MeOH ID
T/D/I see above 12/5/00 Lg

Col 10 T/D/I see above 12/5/00 Lg

Col 11 MeOH ID see above 12/5/00 Lg
T/D/I

Col 12 T/D/I see above 12/5/00 Lg

Col 13 MeOH ID
T/D/I see above Lg 12/5/00

Col 14 T/D/I see above Lg 12/5/00

Col 15 T/D/I see above Lg 12/7/00

Col 16 Spike Soln ID 0003-147 10ppm
T/D/I 2:00 1/3/01 cmc

Internal Standard ID 0001-32-14 20ppm M4PFOS 12.5 uL
T/D/I Lg 01/03/01

Recorded in wrong spot. Lg 12/5/00

(1) Samples stored in prep lab at Room Temp until extraction began
(AC) cmc - 4-19-01

(2) Samples stored under refrigeration in R-2 until dilution and/or analysis occured
(AC) cmc 4-19-01

GLP Study Number: E00-1311

Desorption Solvent | ETS-8-159 Section 12.4 | Test Substance

Col 4 Soil ID 1 TCR-00005-77
Soil ID 2 TCR-00005-70
Col 6 Balance ID 916
T/D/I 10:00 1/21/01 CMC
Col 7 Test Subst. Soln ID # 00001-32-07
Test Substance Concentration: 100 mg/L
T/D/I 10:55 1/22/00 CMC
Col 8 MeOH ID # TNA-4715
T/D/I 11:05 1/22/01 CMC

Col 9
T/D/I 11:50 1/22/01 CMC
Col 10 MeOH ID # TNA-4715
T/D/I 11:50 1/22/01 CMC
Col 11
T/D/I 12:20 1/22/01 CMC
Col 12 MeOH ID # TNA-4715
T/D/I 12:20 1/22/01 CMC

Col 13
T/D/I 12:50 1/22/01 CMC
Col 14 Study Sample
T/D/I 2:05 1/22/01 CMC
Col 15 Spike soln ID # 00008-147
Time/Date/Initials 2:05 1/22/01 CMC
Spike Solution Concentration: 10 ppm PFOS

Internal Standard ID # 01001-2-1
Internal Standard Concentration: 20 mg/L
Time/Date/Initials 2:25 1/22/01 CMC

Sample ID	MS	Type of Sample	Type of Soil (High Clay Content or sludge)	Test Substance, ng	Soil Weight, grams	Test Substance Add'n, µL	Add methanol, record volume added in mL	Centrifuge & Transfer	Add methanol, record volume added in mL	Centrifuge & Transfer	Add methanol, record volume added in mL	Centrifuge & Transfer	1.00 mL of Study Sample	Spike Amount	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
E00-1311-2001	—	Cntrl	NA	0	—	—									
E00-1311-2002	—	Cntrl	NA	0	—	—									
E00-1311-2003	—	Cntrl	NA	0	—	—									
E00-1311-2003	MS	Cntrl	NA	0	—	—								20 µL	(1)
E00-1311-2004	—	Cntrl	NA	0.75	—	7.5 µL									
E00-1311-2005	—	Cntrl	NA	0.75	—	100 mg/L									
E00-1311-2006	—	Cntrl	NA	0.75	—	CMC 1/22/01									
E00-1311-2006	MS	Cntrl	NA	0.75	—	—								20 µL	
E00-1311-2007	—	Cntrl	NA	7.5	—	75 µL									
E00-1311-2008	—	Cntrl	NA	7.5	—	100 mg/L									
E00-1311-2009	—	Cntrl	NA	7.5	—	CMC 1/22/01									
E00-1311-2009	MS	Cntrl	NA	7.5	—	—								20 µL	
E00-1311-2010	—	Smpl	S1	0	2.4463g	—									
E00-1311-2011	—	Smpl	S1	0	2.5027g	—									
E00-1311-2012	—	Smpl	S1	0	2.5026g	—									
E00-1311-2012	MS	Smpl	S1	0	—	—	4/19/01	1/22/01	1/22/01	1/22/01	1/22/01	1/22/01	1/22/01	20 µL	
E00-1311-2013	—	Smpl	S1	0.75	2.4304g	7.5 µL									
E00-1311-2014	—	Smpl	S1	0.75	2.4194g	100 mg/L									
E00-1311-2015	—	Smpl	S1	0.75	2.5027g	CMC 1/22/01									
E00-1311-2015	MS	Smpl	S1	0.75	—	—								20 µL	
E00-1311-2016	—	Smpl	S1	7.5	2.4909g	75 µL									
E00-1311-2017	—	Smpl	S1	7.5	2.5032g	100 mg/L									
E00-1311-2018	—	Smpl	S1	7.5	2.5178g	CMC 1/22/01									
E00-1311-2018	MS	Smpl	S1	7.5	—	—	CMC	CMC	CMC	CMC	CMC	CMC	CMC	20 µL	
E00-1311-2019	—	Smpl	S2	0	2.4928g	—									
E00-1311-2020	—	Smpl	S2	0	2.5022g	—									
E00-1311-2021	—	Smpl	S2	0	2.5174g	—									
E00-1311-2021	MS	Smpl	S2	0	—	—	2.5 mL	2.5 mL	2.5 mL	2.5 mL	2.5 mL	2.5 mL	2.5 mL	20 µL	
E00-1311-2022	—	Smpl	S2	0.75	2.4718g	7.5 µL									
E00-1311-2023	—	Smpl	S2	0.75	2.4980g	100 mg/L									
E00-1311-2024	—	Smpl	S2	0.75	2.4815g	CMC 1/22/01									
E00-1311-2024	MS	Smpl	S2	0.75	—	—								20 µL	
E00-1311-2025	—	Smpl	S2	7.5	2.5008g	75 µL									
E00-1311-2026	—	Smpl	S2	7.5	2.5042g	100 mg/L									
E00-1311-2027	—	Smpl	S2	7.5	2.5152g	CMC 1/22/01									
E00-1311-2027	MS	Smpl	S2	7.5	—	—								20 µL	

S1 = Clay
S2 = Sediment
cmc 1/22/01

(1) Samples stored under refrigeration in R-2 until Analysis 4/19/01 cmc (AC)

GLP Study Number:

Adsorption Kinetics | ETS-8-160 | Test Substance: PFOS

Soil/Sediment/Sludge Description: NA

Initial pH of Stock Solution (pH Paper)
Stock Soln ID 01001-3-8
pH 5.5 T/D/I 12:15 2/1/01 cmc

Col 8 Bal ID NA T/D/I
Col 9 Soln ID 00001-34-12 T/D/I 2:30pm 1/31/01 cmc
Col 10 Inc. ID E12
Start Time T/D/I 2:35pm 1/31/01 cmc
Stop Time T/D/I 1:10am 2/1/01 cmc
Col 11 Stock Soln ID ~~00001~~ ① 01001-3-8 50mg/L PFOS
T/D/I 3:00 pm 2/5/01 cmc
Col 12 ④ Equilibrate tubes/contents for designated hours. I-12

a	0 hour	Start T/D/I	NA
b	2 hour	Stop T/D/I	12:35pm 2/1/01 cmc
c	4 hour	Stop T/D/I	2:20pm 2/1/01 cmc
d	8 hour	Stop T/D/I	7:45pm 2/5/01 cmc
Other	NA		
e	16 hour	Stop T/D/I	6:10am 2/12/01 cmc
f	24 hour	Stop T/D/I	10:45am 2/12/01 cmc
g	36 hour	Stop T/D/I	6:05am 2/17/01 cmc
Other	NA		
h	48 hour	Stop T/D/I	1:20pm 2/7/01 cmc

Col 13 Centrifuge tubes after removal.

a	0 hr	T/D/I	9:30am 2/1/01 cmc
b	2 hr	T/D/I	12:40pm 2/1/01 cmc
c	4 hr	T/D/I	2:20pm 2/1/01 cmc
d	8 hr	T/D/I	2:45pm 2/5/01 cmc
e	16 hr	T/D/I	6:10am 2/12/01 cmc
f	24 hr	T/D/I	10:45am 2/12/01 cmc
g	36 hr	T/D/I	6:05am 2/17/01 cmc
h	48 hr	T/D/I	1:20pm 2/7/01 cmc

Col 14 Balance ID 9/4
T/D/I 1:40pm 2/7/01 cmc

Col 15 pH one replicate of each set.

a	0 hr	T/D/I	9:30am 2/1/01 cmc
b	2 hr	T/D/I	1:00pm 2/1/01 cmc
c	4 hr	T/D/I	2:40pm 2/1/01 cmc
d	8 hr	T/D/I	3:00pm 2/5/01 cmc
e	16 hr	T/D/I	7:20am 2/12/01 cmc
f	24 hr	T/D/I	11:15am 2/12/01 cmc
g	36 hr	T/D/I	7:15am 2/17/01 cmc
h	48 hr	T/D/I	3:00pm 2/7/01 cmc

Col 17

a	0 hr	T/D/I	9:30am 2/1/01 cmc
b	2 hr	T/D/I	1:00 2/1/01 cmc
c	4 hr	T/D/I	2:40 2/1/01 cmc
d	8 hr	T/D/I	3:00 2/5/01 cmc
e	16 hr	T/D/I	7:20 2/12/01 cmc
f	24 hr	T/D/I	11:15 2/12/01 cmc
g	36 hr	T/D/I	7:15 2/17/01 cmc
h	48 hr	T/D/I	3:00 2/17/01 cmc

Col 18
Spike Soln ID 00003-147 10ppm PFOS

a	0 hr	T/D/I	10:00am 2/9/01 cmc
b	2 hr	T/D/I	
c	4 hr	T/D/I	
d	8 hr	T/D/I	
e	16 hr	T/D/I	
f	24 hr	T/D/I	
g	36 hr	T/D/I	
h	48 hr	T/D/I	10:00am 2/19/01 cmc

Internal Standard ID: 01001-02-01 20ppm THPFOS
T/D/I 11:30 Am 2/9/01 cmc
Col 19
Dilution Factor (if Required): 10x D.I.
Methanol ID: TNA-4755
T/D/I 3:00pm 2/17/01 cmc

Sample ID	MS	Type of Smpl	Type of Soil	Conc., Test Substance, mg/L ⑤	Time Point	Soil:Solution Ratio	Weight of Soil, grams	mL of 0.01 M CaCl2 Soln	Equilibration (1) start/stop time	Stock Test Subst. Soln addition, uL 125 uL cmc 2/1/01	Equilibration (2) start/stop time	centrifuge	Weigh tube & contents, grams	Document pH	Sampling	Remove 7.5 mL of study sample soln ④	Spike Amount, uL	Dilution Required?	Comments ⑦ ⑤
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	19
E00-1311-4001	—	Cntrl	NA	0.0	0	NA									S1				12.5 uL IS. 2/9/01 cmc
E00-1311-4002	—	Cntrl	NA	0.0	0	NA									S1				
E00-1311-4003	—	Cntrl	NA	0.0	0	NA								5.5	S1				
E00-1311-4003	MS	Cntrl	NA	0.0	0	NA	—						—	—	S1		20 uL		
E00-1311-4004	—	Cntrl	NA	0.0	48	NA							19.5965 g		S1				
E00-1311-4005	—	Cntrl	NA	0.0	48	NA							19.6450 g		S1				
E00-1311-4006	—	Cntrl	NA	0.0	48	NA							19.6169 g	5.5	S1				
E00-1311-4006	MS	Cntrl	NA	0.0	48	NA	—						—	—	S1		20 uL		
E00-1311-4007	—	Cntrl	NA	5.0	0	NA									S1				
E00-1311-4008	—	Cntrl	NA	5.0	0	NA									S1				
E00-1311-4009	—	Cntrl	NA	5.0	0	NA								5.6	S1				
E00-1311-4009	MS	Cntrl	NA	5.0	0	NA	—						—	—	S1		20 uL		
E00-1311-4010	—	Cntrl	NA	5.0	2	NA									S1				
E00-1311-4011	—	Cntrl	NA	5.0	2	NA									S1				
E00-1311-4012	—	Cntrl	NA	5.0	2	NA								5.5	S1				
E00-1311-4012	MS	Cntrl	NA	5.0	2	NA	—						—	—	S1		20 uL		
E00-1311-4013	—	Cntrl	NA	5.0	4	NA									S1				
E00-1311-4014	—	Cntrl	NA	5.0	4	NA									S1				
E00-1311-4015	—	Cntrl	NA	5.0	4	NA								5.5	S1				
E00-1311-4015	MS	Cntrl	NA	5.0	4	NA	—						—	—	S1		20 uL		
E00-1311-4016	—	Cntrl	NA	5.0	8	NA									S1				
E00-1311-4017	—	Cntrl	NA	5.0	8	NA									S1				
E00-1311-4018	—	Cntrl	NA	5.0	8	NA								5.5	S1				
E00-1311-4018	MS	Cntrl	NA	5.0	8	NA	—						—	—	S1		20 uL		
E00-1311-4019	—	Cntrl	NA	5.0	16	NA									S1				
E00-1311-4020	—	Cntrl	NA	5.0	16	NA									S1				
E00-1311-4021	—	Cntrl	NA	5.0	16	NA								5.5	S1				
E00-1311-4021	MS	Cntrl	NA	5.0	16	NA	—						—	—	S1		20 uL		
E00-1311-4022	—	Cntrl	NA	5.0	24	NA									S1				
E00-1311-4023	—	Cntrl	NA	5.0	24	NA									S1				
E00-1311-4024	—	Cntrl	NA	5.0	24	NA								5.5	S1				
E00-1311-4024	MS	Cntrl	NA	5.0	24	NA	—						—	—	S1		20 uL		
E00-1311-4025	—	Cntrl	NA	5.0	36	NA									S1				
E00-1311-4026	—	Cntrl	NA	5.0	36	NA									S1				
E00-1311-4027	—	Cntrl	NA	5.0	36	NA								5.5	S1				
E00-1311-4027	MS	Cntrl	NA	5.0	36	NA	—						—	—	S1		20 uL		
E00-1311-4028	—	Cntrl	NA	5.0	48	NA									S1				
E00-1311-4029	—	Cntrl	NA	5.0	48	NA							19.8794 g ③		S1				⑤ Tube leaked
E00-1311-4030	—	Cntrl	NA	5.0	48	NA							19.8876 g	5.5	S1				
E00-1311-4030	MS	Cntrl	NA	5.0	48	NA	—						—	—	S1		20 uL		

⑤ 48 hour Samples: Aqueous layer removed; samples stored at Room temp until desorb step. cmc 4-24-01

Concentration = 0.5 mg/L cmc 5/18/01

⑥ 12.5 mL cmc 1/31/01

④ Samples stored under refrigeration in R-2 until diluted and/or analyzed @ cmc 4-24-01

1 Dilution on Spackey 2/9/01 cmc

E00-1311
GLP Study Number

① ⑫ cmc 2/1/01

② 2hour Start: 10:35 Am 2/1/01 cmc
4 hour Start: 10:20am 2/1/01 cmc
8 hour Start: 6:45am 2/5/01 cmc
16 hour Start: 2:00pm 2/12/01 cmc
24 hour Start: 10:45am 2/12/01 cmc
36 hour Start: 3:00pm 2/15/01 cmc
48 hour Start: 1:20pm 2/15/01 cmc

Adsorption Kinetics | ETS-8-160 | Test Substance: PFOS

Soil/Sediment/Sludge Description:
Soil 1 = Clay
TLR 00065-77
NA
NA

Initial pH of Stock Solution (pH Paper)
Stock Soln ID 01001-3-8
pH 5.5 T/D/I 12:45 2/1/01 cmc

Col 8 Sol'n ID 914 T/D/I 11:30Am / 25 / 01 cmc
Col 9 Sol'n ID 00001-34-12 T/D/I 2:30pm / 31 / 01 cmc

Col 10 Inc. ID E-12
Start Time T/D/I 2:35pm / 31 / 01 cmc
Stop Time T/D/I 7:10Am 2/1 /01 cmc

Col 11 Stock Soln ID 01001-3-8 50mg/L PFOS
T/D/I 3:00pm 2/5/01 cmc

Col 12 (1) Equilibrate tubes/contents for designated hours E-12

a	0 hour	start T/D/I	NA
b	2 hour	Stop T/D/I	12:35pm 2/1/01 cmc
c	4 hour	Stop T/D/I	2:20pm 2/1 01 cmc
d	8 hour	Stop T/D/I	2:45pm 2/5/01 cmc
Other	NA		
e	16 hour	Stop T/D/I	6:10Am 2/2/01 cmc
f	24 hour	Stop T/D/I	10:46Am 2/2/01 cmc
g	36 hour	Stop T/D/I	6:05Am 2/7/01 cmc
Other	NA		
h	48 hour	Stop T/D/I	1:20pm 2/7/01 cmc

Col 13 Centrifuge tubes after removal.

a	0 hr	T/D/I	9:40Am 2/1/01 cmc
b	2 hr	T/D/I	12:40pm 2/1/01 cmc
c	4 hr	T/D/I	2:20pm 2/1/01 cmc
d	16 hr (2)	T/D/I	6:10Am 2/2/01 cmc
e	8 16 hr	T/D/I	2:45pm 2/5/01 cmc
f	24 hr	T/D/I	10:45Am 2/2/01 cmc
g	36 hr	T/D/I	6:05Am 2/7/01 cmc
h	48 hr	T/D/I	1:20pm 2/7/01 cmc

Col 14 Balance ID 914
T/D/I 1:40pm 2/7/01 cmc

Col 15 pH one replicate of each set.

a	0 hr	T/D/I	9:40Am 2/1/01 cmc
b	2 hr	T/D/I	1:00pm 2/1/01 cmc
c	4 hr	T/D/I	2:40pm 2/1/01 cmc
d	8 hr	T/D/I	3:00pm 2/5/01 cmc
e	16 hr	T/D/I	7:20Am 2/2/01 cmc
f	24 hr	T/D/I	11:15Am 2/2/01 cmc
g	36 hr	T/D/I	7:15Am 2/7/01 cmc
h	48 hr	T/D/I	3:00pm 2/7/01 cmc

Col 17

a	0 hr	T/D/I	9:40 2/1/01 cmc
b	2 hr	T/D/I	1:00 2/1/01 cmc
c	4 hr	T/D/I	2:40 2/1/01 cmc
d	8 hr	T/D/I	3:00 2/5/01 cmc
e	16 hr	T/D/I	7:20 2/2/01 cmc
f	24 hr	T/D/I	11:15 2/2/01 cmc
g	36 hr	T/D/I	7:15 2/7/01 cmc
h	48 hr	T/D/I	3:00 2/7/01 cmc

Col 18
Spike Soln ID 00003-147 10ppm PFOS

a	0 hr	T/D/I	2/9/01 cmc
b	2 hr	T/D/I	
c	4 hr	T/D/I	
d	8 hr	T/D/I	
e	16 hr	T/D/I	
f	24 hr	T/D/I	
g	36 hr	T/D/I	
h	48 hr	T/D/I	10:00Am 2/9/01 cmc

Internal Standard ID: 01001-02-01 20ppm THPFOS
T/D/I 11:30Am 2/9/01 cmc

Col 19
Dilution Factor (If Required): 10x Dilution
Methanol ID: TNA-4755
T/D/I 3:00pm 2/7/01 cmc

Sample ID	MS	Type of Smpl	Type of Soil	Conc., Test Substance, mg/L (3)	Time Point	Soil:Solution Ratio	Weight of Soil, grams	mL of 0.01 M CaCl2 Soln	Equilibration (1) start/stop time	Stock Test Subst. Soln addition, uL	Equilibration (2) start/stop time	centrifuge	Weigh tube & contents, grams	Document pH	Sampling	Remove 2 mL of study sample soln (3)	Spike Amount, uL	Dilution Required?	Comments (2) (4)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	19
E00-1311-4031	—	Smpl	Soil 1	0.0	0	1:5	2.5197g								S1				12.5uL I.S. cmc 2/9/01
E00-1311-4032	—	Smpl	Soil 1	0.0	0	1:5	2.5050g								S1				
E00-1311-4033	—	Smpl	Soil 1	0.0	0	1:5	2.5149g							6.5	S1				
E00-1311-4033	MS	Smpl	Soil 1	0.0	0	1:5									S1		20uL		
E00-1311-4034	—	Smpl	Soil 1	0.0	48	1:5	2.5116g						22.1918g		S1				
E00-1311-4035	—	Smpl	Soil 1	0.0	48	1:5	2.4414g						22.1023g		S1				
E00-1311-4036	—	Smpl	Soil 1	0.0	48	1:5	2.4869g						22.0512g	7.0	S1				
E00-1311-4036	MS	Smpl	Soil 1	0.0	48	1:5									S1		20uL		
E00-1311-4037	—	Smpl	Soil 1	0.0	0	1:5	2.4914g								S1				
E00-1311-4038	—	Smpl	Soil 1	0.0	0	1:5	2.4844g								S1				
E00-1311-4039	—	Smpl	Soil 1	0.0	0	1:5	2.5035g							7.0	S1				
E00-1311-4039	MS	Smpl	Soil 1	0.0	0	1:5									S1		20uL		
E00-1311-4040	—	Smpl	Soil 1	5.0	2	1:5	2.4842g								S1				
E00-1311-4041	—	Smpl	Soil 1	5.0	2	1:5	2.4873g								S1				
E00-1311-4042	—	Smpl	Soil 1	5.0	2	1:5	2.5144g							6.5	S1				
E00-1311-4042	MS	Smpl	Soil 1	5.0	2	1:5									S1		20uL		
E00-1311-4043	—	Smpl	Soil 1	5.0	4	1:5	2.4914g								S1				
E00-1311-4044	—	Smpl	Soil 1	5.0	4	1:5	2.4945g								S1				
E00-1311-4045	—	Smpl	Soil 1	5.0	4	1:5	2.4971g							6.5	S1				
E00-1311-4045	MS	Smpl	Soil 1	5.0	4	1:5									S1		20uL		
E00-1311-4046	—	Smpl	Soil 1	5.0	8	1:5	2.4871g								S1				
E00-1311-4047	—	Smpl	Soil 1	5.0	8	1:5	2.4895g								S1				
E00-1311-4048	—	Smpl	Soil 1	5.0	8	1:5	2.4849g							7.0	S1				
E00-1311-4048	MS	Smpl	Soil 1	5.0	8	1:5									S1		20uL		
E00-1311-4049	—	Smpl	Soil 1	5.0	16	1:5	2.4967g								S1				
E00-1311-4050	—	Smpl	Soil 1	5.0	16	1:5	2.4409g								S1				
E00-1311-4051	—	Smpl	Soil 1	5.0	16	1:5	2.4864g							7.0	S1				
E00-1311-4051	MS	Smpl	Soil 1	5.0	16	1:5									S1		20uL		
E00-1311-4052	—	Smpl	Soil 1	5.0	24	1:5	2.4436g								S1				
E00-1311-4053	—	Smpl	Soil 1	5.0	24	1:5	2.5047g								S1				
E00-1311-4054	—	Smpl	Soil 1	5.0	24	1:5	2.4894g							7.0	S1				
E00-1311-4054	MS	Smpl	Soil 1	5.0	24	1:5									S1		20uL		
E00-1311-4055	—	Smpl	Soil 1	5.0	36	1:5	2.5097g								S1				
E00-1311-4056	—	Smpl	Soil 1	5.0	36	1:5	2.5090g								S1				
E00-1311-4057	—	Smpl	Soil 1	5.0	36	1:5	2.4914g							7.0	S1				
E00-1311-4057	MS	Smpl	Soil 1	5.0	36	1:5									S1		20uL		
E00-1311-4058	—	Smpl	Soil 1	5.0	48	1:5	2.4857g						22.2499g		S1				
E00-1311-4059	—	Smpl	Soil 1	5.0	48	1:5	2.5226g						22.2369g		S1				
E00-1311-4060	—	Smpl	Soil 1	5.0	48	1:5	2.4930g						22.3319g	7.0	S1				
E00-1311-4060	MS	Smpl	Soil 1	5.0	48	1:5									S1		20uL		

(4) 48 hour Samples: Aqueous layer removed and samples stored at Room temp until desorb Step. (E) cmc 4-24-01

(5) (E) Concentration = 0.5 mg/L cmc 5/1/01

(1) 2h. Start: 10:35am 2/1/01 cmc
4h. Start: 10:20AM 2/1/01 cmc
8h. Start: 6:45am 2/5/01 cmc
16h. Start: 2.00pm 2/1/01 cmc
24h. Start: 10:45am 2/1/01 cmc
36h. Start: 3:00pm 2/5/01 cmc
48h. Start: 1:20pm 2/5/01 cmc

(2) (AE) cmc 2/2/01

(3) Samples stored under refrigeration in R-2 unit. diluted and/or analyzed (AC) cmc 4-24-01

GLP Study Number
E00-1311

2 of 6

Adsorption Kinetics — ETS-8-160 — Test Substance: PFOS

Soil/Sediment/Sludge Description:
Soil #2 = Clay Loam
TLR # 00016S - 0165
NA
NA

Initial pH of Stock Solution (pH Paper)
Stock Soln ID 01001-3-8
pH 5.5 T/D/I 12:45 2/1/01 cmc

Col 8 Bal ID 914 T/D/I 12:10pm / 25/01 cmc
Col 9 Soil'n ID 00001-34-12 T/D/I 2:30pm / 31/01 cmc

Col 10 Inc. ID I-12
Start Time T/D/I 2:35pm 1/31/01 cmc
Stop Time T/D/I 7:10am 2/1/01 cmc

Col 11 Stock Soln ID 01001-3-8 50mg/L PFOS
T/D/I 3:00pm 2/5/01 cmc

Col 12 ①
Equilibrate tubes/contents for designated hours: I-12
a 0 hour Start T/D/I NA
b 2 hour Stop T/D/I 12:35pm 2/1/01 cmc
c 4 hour Stop T/D/I 2:20pm 2/1/01 cmc
d 8 hour Stop T/D/I 2:45pm 2/5/01 cmc
Other NA
e 16 hour Stop T/D/I 6:10am 2/2/01 cmc
f 24 hour Stop T/D/I 10:45am 2/2/01 cmc
g 36 hour Stop T/D/I 6:05am 2/7/01 cmc
Other NA
h 48 hour Stop T/D/I 1:20pm 2/7/01 cmc

Col 13 Centrifuge tubes after removal.
a 0 hr T/D/I 9:40pm 2/1/01 cmc
b 2 hr T/D/I 12:40pm 2/1/01 cmc
c 4 hr T/D/I 2:20pm 2/1/01 cmc
d 8 hr T/D/I 2:45pm 2/5/01 cmc
e 16 hr T/D/I 6:10am 2/2/01 cmc
f 24 hr T/D/I 10:45am 2/2/01 cmc
g 36 hr T/D/I 6:05am 2/7/01 cmc
h 48 hr T/D/I 1:20pm 2/7/01 cmc

Col 14 Balance ID 914
T/D/I 1:40pm 2/7/01 cmc

Col 15 pH one replicate of each set.
a 0 hr T/D/I 9:40pm 2/1/01 cmc
b 2 hr T/D/I 1:00pm 2/1/01 cmc
c 4 hr T/D/I 2:40pm 2/1/01 cmc
d 8 hr T/D/I 3:00pm 2/5/01 cmc
e 16 hr T/D/I 7:20am 2/2/01 cmc
f 24 hr T/D/I 11:15am 2/2/01 cmc
g 36 hr T/D/I 7:15am 2/7/01 cmc
h 48 hr T/D/I 3:00pm 2/7/01 cmc

Col 17
a 0 hr T/D/I 9:40 2/1/01 cmc
b 2 hr T/D/I 1:00 2/1/01 cmc
c 4 hr T/D/I 2:40 2/1/01 cmc
d 8 hr T/D/I 3:00 2/5/01 cmc
e 16 hr T/D/I 7:20 2/2/01 cmc
f 24 hr T/D/I 11:15 2/2/01 cmc
g 36 hr T/D/I 7:15 2/7/01 cmc
h 48 hr T/D/I 3:00 2/7/01 cmc

Col 18
Spike Soln ID 00003-147 10ppm PFOS
a 0 hr T/D/I 10:00pm 2/9/01 cmc
b 2 hr T/D/I
c 4 hr T/D/I
d 8 hr T/D/I
e 16 hr T/D/I
f 24 hr T/D/I
g 36 hr T/D/I
h 48 hr T/D/I 10:00pm 2/9/01 cmc

Internal Standard ID: 01001-02-01 20ppm THPFOS
T/D/I 11:30am 2/9/01 cmc

Col 19
Dilution Factor (if Required): 10X Dilution
Methanol ID: INA-4755
T/D/I 3:00pm 2/7/01 cmc

Sample ID	MS	Type of Smpl	Type of Soil	Conc., Test Substance, mg/L ④	Time Point	Soil:Solution Ratio	Weight of Soil, grams	mL of 0.01 M CaCl2 Soln	Equilibration (1) start/stop time	Stock Test Subst. Soln addition, uL 12.5uL Conc 2/1/01	Equilibration (2) start/stop time	centrifuge	Weigh tube & contents, grams	Document pH	Sampling	Remove ~1.8 mL of study sample soln ②	Spike Amount, uL	Dilution Required?	Comments ②③
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	19
E00-1311-4061	—	Smpl	Soil 2	0.0	0	1:5	2.4843g								S1				12.5uL I.S. 2/9/01 cmc
E00-1311-4062	—	Smpl	Soil 2	0.0	0	1:5	2.4419g								S1				
E00-1311-4063	—	Smpl	Soil 2	0.0	0	1:5	2.6245g							5.5	S1				
E00-1311-4063	MS	Smpl	Soil 2	0.0	0	1:5									S1		20uL		
E00-1311-4064	—	Smpl	Soil 2	0.0	48	1:5	2.4474g						22.1677g		S1				
E00-1311-4065	—	Smpl	Soil 2	0.0	48	1:5	2.5186g						22.1555g		S1				
E00-1311-4066	—	Smpl	Soil 2	0.0	48	1:5	2.5176g						22.1615g	6.0	S1				
E00-1311-4066	MS	Smpl	Soil 2	0.0	48	1:5									S1		20uL		
E00-1311-4067	—	Smpl	Soil 2	5.0	0	1:5	2.5058g								S1				
E00-1311-4068	—	Smpl	Soil 2	5.0	0	1:5	2.4904g								S1				
E00-1311-4069	—	Smpl	Soil 2	5.0	0	1:5	2.5286g							5.5	S1				
E00-1311-4069	MS	Smpl	Soil 2	5.0	0	1:5									S1		20uL		
E00-1311-4070	—	Smpl	Soil 2	5.0	2	1:5	2.4466g								S1				
E00-1311-4071	—	Smpl	Soil 2	5.0	2	1:5	2.5099g								S1				
E00-1311-4072	—	Smpl	Soil 2	5.0	2	1:5	2.5022g							5.5	S1				
E00-1311-4072	MS	Smpl	Soil 2	5.0	2	1:5									S1		20uL		
E00-1311-4073	—	Smpl	Soil 2	5.0	4	1:5	2.4498g								S1				
E00-1311-4074	—	Smpl	Soil 2	5.0	4	1:5	2.4878g								S1				
E00-1311-4075	—	Smpl	Soil 2	5.0	4	1:5	2.5214g							5.5	S1				
E00-1311-4075	MS	Smpl	Soil 2	5.0	4	1:5									S1		20uL		
E00-1311-4076	—	Smpl	Soil 2	5.0	8	1:5	2.4484g								S1				
E00-1311-4077	—	Smpl	Soil 2	5.0	8	1:5	2.4952g								S1				
E00-1311-4078	—	Smpl	Soil 2	5.0	8	1:5	2.4924g							6.0	S1				
E00-1311-4078	MS	Smpl	Soil 2	5.0	8	1:5									S1		20uL		
E00-1311-4079	—	Smpl	Soil 2	5.0	16	1:5	2.4492g								S1				
E00-1311-4080	—	Smpl	Soil 2	5.0	16	1:5	2.5087g								S1				
E00-1311-4081	—	Smpl	Soil 2	5.0	16	1:5	2.5136g							6.0	S1				
E00-1311-4081	MS	Smpl	Soil 2	5.0	16	1:5									S1		20uL		
E00-1311-4082	—	Smpl	Soil 2	5.0	24	1:5	2.5006g								S1				
E00-1311-4083	—	Smpl	Soil 2	5.0	24	1:5	2.5264g								S1				
E00-1311-4084	—	Smpl	Soil 2	5.0	24	1:5	2.5061g							6.0	S1				
E00-1311-4084	MS	Smpl	Soil 2	5.0	24	1:5									S1		20uL		
E00-1311-4085	—	Smpl	Soil 2	5.0	36	1:5	2.5242g								S1				
E00-1311-4086	—	Smpl	Soil 2	5.0	36	1:5	2.4981g								S1				
E00-1311-4087	—	Smpl	Soil 2	5.0	36	1:5	2.4989g							6.0	S1				
E00-1311-4087	MS	Smpl	Soil 2	5.0	36	1:5									S1		20uL		
E00-1311-4088	—	Smpl	Soil 2	5.0	48	1:5	2.4987g						22.2664g		S1				
E00-1311-4089	—	Smpl	Soil 2	5.0	48	1:5	2.5038g						22.1706g		S1				
E00-1311-4090	—	Smpl	Soil 2	5.0	48	1:5	2.4910g						22.3272g	6.0	S1				
E00-1311-4090	MS	Smpl	Soil 2	5.0	48	1:5									S1		20uL		

12.5mL 1/31/01 cmc

③ 48 hour Samples: Aqueous layer removed, tubes stored at room temp until desorb Step ⑭ cmc 4-24-01

Concentration = 0.5mg/L cmc 5/16/01

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2h. Start: 10:35 2/1/01 cmc
4h. Start: 10:20 2/1/01 cmc
8h. Start: 6:45am 2/5/01 cmc
16h. Start: 2:00 2/2/01 cmc
24h. Start: 10:45 2/2/01 cmc
36h. Start: 3:00 2/5/01
48h. Start: 1:20 2/5/01 cmc

② Samples stored under refrigeration in R-2 until diluted and/or analyzed ⑯ cmc 4-24-01

10X Dilution 2/7/01 cmc
"Shaky"

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Adsorption Kinetics | ETS-8-160 | Test Substance: PFOS

Soil/Sediment/Sludge Description:
Soil 3 = Sandy Loam
TCR-00065-009
NA
NA

Initial pH of Stock Solution (pH Paper)
Stock Soln ID 01001-3-8
pH 5.5 T/D/I 12:45pm 2/1/01 cmc

Col 8 Bal ID 914 T/D/I 11:08Am 1/31/01 cmc
Col 9 Soln ID 00001-34-162 T/D/I 2:30pm 1/31/01 cmc

Col 10 Inc. ID I-12
Start Time T/D/I 2:35pm 1/31/01 cmc
Stop Time T/D/I 7:10am 2/1/01 cmc

Col 11 Stock Soln ID 01001-3-8 50mg/L PFOS
T/D/I 3:00pm 2/5/01 cmc

Col 12 (3) Equilibrate tubes/contents for designated hours. I-12
a 0 hour Start T/D/I NA
b 2 hour Stop T/D/I 12:35pm 2/1/01 cmc
c 4 hour Stop T/D/I 2:20pm 2/1/01 cmc
d 8 hour Stop T/D/I 2:45pm 2/5/01 cmc
Other NA
e 16 hour Stop T/D/I 6:10Am 2/2/01 cmc
f 24 hour Stop T/D/I 10:45Am 2/2/01 cmc
g 36 hour Stop T/D/I 6:05am 2/7/01 cmc
Other NA
h 48 hour Stop T/D/I 1:20pm 2/7/01 cmc

Col 13 Centrifuge tubes after removal.
a 0 hr T/D/I 9:40Am 2/1/01 cmc
b 2 hr T/D/I 12:40pm 2/1/01 cmc
c 4 hr T/D/I 2:20pm 2/1/01 cmc
d 8 hr T/D/I 2:45pm 2/5/01 cmc
e 16 hr T/D/I 6:10am 2/2/01 cmc
f 24 hr T/D/I 10:45Am 2/2/01 cmc
g 36 hr T/D/I 6:05am 2/7/01 cmc
h 48 hr T/D/I 1:20pm 2/7/01 cmc

Col 14 Balance ID 914
T/D/I 1:40pm 2/7/01 cmc

Col 15 pH one replicate of each set.
a 0 hr T/D/I 9:40Am 2/1/01 cmc
b 2 hr T/D/I 1:00pm 2/1/01 cmc
c 4 hr T/D/I 2:40pm 2/1/01 cmc
d 8 hr T/D/I 3:00pm 2/5/01 cmc
e 16 hr T/D/I 7:20Am 2/2/01 cmc
f 24 hr T/D/I 11:15Am 2/2/01 cmc
g 36 hr T/D/I 7:15am 2/7/01 cmc
h 48 hr T/D/I 3:00pm 2/7/01 cmc

Col 17
a 0 hr T/D/I 9:40 2/1/01 cmc
b 2 hr T/D/I 1:00 2/1/01 cmc
c 4 hr T/D/I 2:40 2/1/01 cmc
d 8 hr T/D/I 3:00 2/5/01 cmc
e 16 hr T/D/I 7:20 2/2/01 cmc
f 24 hr T/D/I 11:15 2/2/01 cmc
g 36 hr T/D/I 7:15 2/7/01 cmc
h 48 hr T/D/I 3:00 2/7/01 cmc

Col 18
Spike Soln ID 00003-147 10ppm PFOS
a 0 hr T/D/I 12:00Am 2/1/01 cmc
b 2 hr T/D/I
c 4 hr T/D/I
d 8 hr T/D/I
e 16 hr T/D/I
f 24 hr T/D/I
g 36 hr T/D/I
h 48 hr T/D/I 12:00Am 2/7/01 cmc

Internal Standard ID: 01001-02-03 20ppm THPFOS
T/D/I 11:30Am 2/9/01 cmc

Col 19
Dilution Factor (if Required): 10x Dilution
Methanol ID: TNA-4755
T/D/I 3:00pm 2/7/01 cmc

Sample ID	MS	Type of Smpl	Type of Soil	Conc., Test Substance, mg/L (6)	Time Point	Soil:Solution Ratio	Weight of Soil, grams	mL of 0.01 M CaCl2 Soln	Equilibration (1) start/stop time	Stock Test Subst. Soln addition, uL 1@5mL cmc 2/1/01	Equilibration (2) start/stop time	centrifuge	Weigh tube & contents, grams	Document pH	Sampling	Remove 1.8 mL of study sample soln (4)	Spike Amount, uL	Dilution Required?	Comments (4) (5)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	19
E00-1311-4091	—	Smpl	Soil 3	0.0	0	1:5	2.4946 g								S1				12.5mL I.S. 2/9/01 cmc
E00-1311-4092	—	Smpl	Soil 3	0.0	0	1:5	2.4814 g								S1				
E00-1311-4093	—	Smpl	Soil 3	0.0	0	1:5	2.4842 g							5.5	S1				
E00-1311-4093	MS	Smpl	Soil 3	0.0	0	1:5									S1		20µL		
E00-1311-4094	—	Smpl	Soil 3	0.0	48	1:5	2.4815 g						22.1712 g		S1				
E00-1311-4095	—	Smpl	Soil 3	0.0	48	1:5	2.5179 g						22.1583 g		S1				
E00-1311-4096	—	Smpl	Soil 3	0.0	48	1:5	2.5157 g						22.1345 g	6.5	S1				
E00-1311-4096	MS	Smpl	Soil 3	0.0	48	1:5									S1		20µL		
E00-1311-4097	—	Smpl	Soil 3	5.0	0	1:5	2.2 ① g								S1				
E00-1311-4098	—	Smpl	Soil 3	5.0	0	1:5	2.4849 g								S1				
E00-1311-4099	—	Smpl	Soil 3	5.0	0	1:5	2.4887 g							6.0	S1				
E00-1311-4099	MS	Smpl	Soil 3	5.0	0	1:5									S1		20µL		
E00-1311-4100	—	Smpl	Soil 3	5.0	2	1:5	2.4927 g								S1				
E00-1311-4101	—	Smpl	Soil 3	5.0	2	1:5	2.4999 g								S1				
E00-1311-4102	—	Smpl	Soil 3	5.0	2	1:5	2.4857 g							5.5	S1				
E00-1311-4102	MS	Smpl	Soil 3	5.0	2	1:5									S1		20µL		
E00-1311-4103	—	Smpl	Soil 3	5.0	4	1:5	2.4917 g								S1				
E00-1311-4104	—	Smpl	Soil 3	5.0	4	1:5	2.4963 g								S1				
E00-1311-4105	—	Smpl	Soil 3	5.0	4	1:5	2.5065 g							6.0	S1				
E00-1311-4105	MS	Smpl	Soil 3	5.0	4	1:5									S1		20µL		
E00-1311-4106	—	Smpl	Soil 3	5.0	8	1:5	2.4875 g								S1				
E00-1311-4107	—	Smpl	Soil 3	5.0	8	1:5	2.4927 g								S1				
E00-1311-4108	—	Smpl	Soil 3	5.0	8	1:5	2.4906 g							6.5	S1				
E00-1311-4108	MS	Smpl	Soil 3	5.0	8	1:5									S1		20µL		
E00-1311-4109	—	Smpl	Soil 3	5.0	16	1:5	2.2 ② g								S1				
E00-1311-4110	—	Smpl	Soil 3	5.0	16	1:5	2.5139 g								S1				
E00-1311-4111	—	Smpl	Soil 3	5.0	16	1:5	2.4926 g							7.0	S1				
E00-1311-4111	MS	Smpl	Soil 3	5.0	16	1:5									S1		20µL		
E00-1311-4112	—	Smpl	Soil 3	5.0	24	1:5	2.4964 g								S1				
E00-1311-4113	—	Smpl	Soil 3	5.0	24	1:5	2.5180 g								S1				
E00-1311-4114	—	Smpl	Soil 3	5.0	24	1:5	2.4911 g							6.5	S1				
E00-1311-4114	MS	Smpl	Soil 3	5.0	24	1:5									S1		20µL		
E00-1311-4115	—	Smpl	Soil 3	5.0	36	1:5	2.5065 g								S1				
E00-1311-4116	—	Smpl	Soil 3	5.0	36	1:5	2.5096 g								S1				
E00-1311-4117	—	Smpl	Soil 3	5.0	36	1:5	2.4986 g							6.5	S1				
E00-1311-4117	MS	Smpl	Soil 3	5.0	36	1:5									S1		20µL		
E00-1311-4118	—	Smpl	Soil 3	5.0	48	1:5	2.5084 g						22.0634 g		S1				
E00-1311-4119	—	Smpl	Soil 3	5.0	48	1:5	2.5358 g						22.2545 g		S1				
E00-1311-4120	—	Smpl	Soil 3	5.0	48	1:5	2.4820 g						22.1951 g	6.5	S1				
E00-1311-4120	MS	Smpl	Soil 3	5.0	48	1:5									S1		20µL		

(5) 48 hour Samples: Aqueous layer removed from Stored at room temp until disposal. (6) cmc 4-24-01
(1) (C) Concentration = 0.5 mg/L cmc 5/15/01
(2) (C) 2.5002 gm cmc 1/31/01
(2) (C) 2.5083 g cmc 1/31/01
(3) 2h. Start: 10:35Am 2/1/01 cmc
4h. Start: 10:20Am 2/1/01 cmc
8h. Start: 6:25Am 2/5/01 cmc
16h. Start: 2:00pm 2/1/01 cmc
24h. Start: 10:45Am 2/2/01 cmc
36h. Start: 3:00pm 2/5/01 cmc
48h. Start: 1:20pm 2/5/01 cmc
(4) Samples stored under refrigeration in R-2 until diluted and/or analyzed. (AC) cmc 4-24-01
10x Dilution for Sparky

GLP Study Number E00-1311

Adsorption Kinetics | ETS-8-160 | Test Substance: PFOS

Soil/Sediment/Sludge Description:
Sed 1 = Sediment (River)
TLR-00065-70
NA
NA

Initial pH of Stock Solution (pH Paper)
Stock Soln ID 01001-3-8
pH 5.6 T/D/I 12:45 2/1/01 cmc

Col 8 Bal ID 914 T/D/I 2:30pm 1/24/01 cmc
Col 9 Soln ID 00001-31-12 T/D/I 2:30pm 1/31/01 cmc

Col 10 Inc. ID I-12
Start Time T/D/I 2:35pm 1/31/01 cmc
Stop Time T/D/I 7:10am 2/1/01 cmc

Col 11 Stock Soln ID 01001-3-8 50mg/L PFOS
T/D/I 3:00pm 2/5/01 cmc

Col 12 (1) Equilibrate tubes/contents for designated hours. I-12
a 0 hour Start T/D/I NA
b 2 hour Stop T/D/I 2:35pm 2/1/01 cmc
c 4 hour Stop T/D/I 2:20pm 2/1/01 cmc
d 8 hour Stop T/D/I 2:45pm 2/5/01 cmc
Other NA
e 16 hour Stop T/D/I 6:10am 2/2/01 cmc
f 24 hour Stop T/D/I 10:15am 2/2/01 cmc
g 36 hour Stop T/D/I 6:05am 2/7/01 cmc
Other NA
h 48 hour Stop T/D/I 1:20pm 2/7/01 cmc

Col 13 Centrifuge tubes after removal.
a 0 hr T/D/I 9:55am 2/1/01 cmc
b 2 hr T/D/I 12:55pm 2/1/01 cmc
c 4 hr T/D/I 2:20pm 2/1/01 cmc
d 8 hr T/D/I 2:45pm 2/5/01 cmc
e 16 hr T/D/I 6:10am 2/2/01 cmc
f 24 hr T/D/I 10:45am 2/2/01 cmc
g 36 hr T/D/I 6:05am 2/7/01 cmc
h 48 hr T/D/I 1:20pm 2/7/01 cmc

Col 14 Balance ID 914
T/D/I 1:40pm 2/7/01 cmc

Col 15 pH one replicate of each set.
a 0 hr T/D/I 9:55 Am 2/1/01 cmc
b 2 hr T/D/I 1:15pm 2/1/01 cmc
c 4 hr T/D/I 2:40pm 2/1/01 cmc
d 8 hr T/D/I 3:00pm 2/5/01 cmc
e 16 hr T/D/I 7:20am 2/2/01 cmc
f 24 hr T/D/I 11:15am 2/2/01 cmc
g 36 hr T/D/I 7:15am 2/7/01 cmc
h 48 hr T/D/I 3:00pm 2/7/01 cmc

Col 17
a 0 hr T/D/I 9:55 2/1/01 cmc
b 2 hr T/D/I 1:15 2/1/01 cmc
c 4 hr T/D/I 2:40 2/1/01 cmc
d 8 hr T/D/I 3:00 2/5/01 cmc
e 16 hr T/D/I 7:20 2/2/01 cmc
f 24 hr T/D/I 11:15 2/2/01 cmc
g 36 hr T/D/I 7:15 2/7/01 cmc
h 48 hr T/D/I 3:00 2/7/01 cmc

Col 18
Spike Soln ID 00003-147 10ppm PFOS
a 0 hr T/D/I (0.20mL) 2/1/01 cmc
b 2 hr T/D/I
c 4 hr T/D/I
d 8 hr T/D/I
e 16 hr T/D/I
f 24 hr T/D/I
g 36 hr T/D/I
h 48 hr T/D/I 10:00am 2/7/01 cmc

Internal Standard ID: 01001-02-01 20ppm THPFOS
T/D/I 11:30am 2/9/01 cmc

Col 19
Dilution Factor (if Required): 10x Dilution
Methanol ID: TNA-4755
T/D/I 3:00pm 2/7/01 cmc

Sample ID	MS	Type of Smpl	Type of Soil	Conc., Test Substance, mg/L (4)	Time Point	Soil:Solution Ratio	Weight of Soil, grams	mL of 0.01 M CaCl2 Soln	Equilibration (1) start/stop time	Stock Test Subst. Soln addition, uL (10uL = 20mg/L) (2)	Equilibration (2) start/stop time	centrifuge	Weigh tube & contents, grams	Document pH	Sampling	Remove 1.8 mL of study sample soln (3)	Spike Amount, uL	Dilution Required?	Comments (3) (3)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	19
E00-1311-4121	—	Smpl	Sed 1	0.0	0	1:5	2.5216g								S1				12.5uL I.S. 2/9/01 cmc
E00-1311-4122	—	Smpl	Sed 1	0.0	0	1:5	2.5137g								S1				
E00-1311-4123	—	Smpl	Sed 1	0.0	0	1:5	2.4827g							6.5	S1				
E00-1311-4123	MS	Smpl	Sed 1	0.0	0	1:5									S1		20uL		
E00-1311-4124	—	Smpl	Sed 1	0.0	48	1:5	2.5055g						22.0939g		S1				
E00-1311-4125	—	Smpl	Sed 1	0.0	48	1:5	2.5232g						22.0597g		S1				
E00-1311-4126	—	Smpl	Sed 1	0.0	48	1:5	2.5106g						22.2525g	7.0	S1				
E00-1311-4126	MS	Smpl	Sed 1	0.0	48	1:5									S1		20uL		
E00-1311-4127	—	Smpl	Sed 1	5.0	0	1:5	2.5039g								S1				
E00-1311-4128	—	Smpl	Sed 1	5.0	0	1:5	2.5260g								S1				
E00-1311-4129	—	Smpl	Sed 1	5.0	0	1:5	2.5085g							6.0	S1				
E00-1311-4129	MS	Smpl	Sed 1	5.0	0	1:5									S1		20uL		
E00-1311-4130	—	Smpl	Sed 1	5.0	2	1:5	2.5056g								S1				
E00-1311-4131	—	Smpl	Sed 1	5.0	2	1:5	2.5166g								S1				
E00-1311-4132	—	Smpl	Sed 1	5.0	2	1:5	2.5005g							6.0	S1				
E00-1311-4132	MS	Smpl	Sed 1	5.0	2	1:5									S1		20uL		
E00-1311-4133	—	Smpl	Sed 1	5.0	4	1:5	2.5036g								S1				
E00-1311-4134	—	Smpl	Sed 1	5.0	4	1:5	2.5171g								S1				
E00-1311-4135	—	Smpl	Sed 1	5.0	4	1:5	2.4941g							6.0	S1				
E00-1311-4135	MS	Smpl	Sed 1	5.0	4	1:5									S1		20uL		
E00-1311-4136	—	Smpl	Sed 1	5.0	8	1:5	2.5065g								S1				
E00-1311-4137	—	Smpl	Sed 1	5.0	8	1:5	2.5030g								S1				
E00-1311-4138	—	Smpl	Sed 1	5.0	8	1:5	2.5161g							7.0	S1				
E00-1311-4138	MS	Smpl	Sed 1	5.0	8	1:5									S1		20uL		
E00-1311-4139	—	Smpl	Sed 1	5.0	16	1:5	2.5031g								S1				
E00-1311-4140	—	Smpl	Sed 1	5.0	16	1:5	2.5020g								S1				
E00-1311-4141	—	Smpl	Sed 1	5.0	16	1:5	2.5051g							7.0	S1				
E00-1311-4141	MS	Smpl	Sed 1	5.0	16	1:5									S1		20uL		
E00-1311-4142	—	Smpl	Sed 1	5.0	24	1:5	2.5043g								S1				
E00-1311-4143	—	Smpl	Sed 1	5.0	24	1:5	2.5225g								S1				
E00-1311-4144	—	Smpl	Sed 1	5.0	24	1:5	2.4945g							7.0	S1				
E00-1311-4144	MS	Smpl	Sed 1	5.0	24	1:5									S1		20uL		
E00-1311-4145	—	Smpl	Sed 1	5.0	36	1:5	2.5021g								S1				
E00-1311-4146	—	Smpl	Sed 1	5.0	36	1:5	2.5079g								S1				
E00-1311-4147	—	Smpl	Sed 1	5.0	36	1:5	2.5137g							7.0	S1				
E00-1311-4147	MS	Smpl	Sed 1	5.0	36	1:5									S1		20uL		
E00-1311-4148	—	Smpl	Sed 1	5.0	48	1:5	2.5048g						22.3071g		S1				
E00-1311-4149	—	Smpl	Sed 1	5.0	48	1:5	2.5018g						22.3423g		S1				
E00-1311-4150	—	Smpl	Sed 1	5.0	48	1:5	2.5064g						22.4443g	7.0	S1				
E00-1311-4150	MS	Smpl	Sed 1	5.0	48	1:5									S1		20uL		

(3) 48 hour Samples: Aqueous layer removed, tubes stored at room temp until dosed. Step (4) Concentration = 0.5 mg/L cmc 5/18/01 (4) cmc 4-24-01

(2) Samples stored under refrigeration in 2-2 until diluted and/or analyzed. (4) cmc 4-24-01

GLP Study Number (1) E00-1311

2h. Start: 10:35 2/1/01 cmc 16h. Start: 8:00 2/1/01 cmc
4h. Start: 10:20 2/1/01 cmc 24h. Start: 10:45 2/1/01 cmc
8h. Start: 6:45pm 2/5/01 cmc 36h. Start 3:00 2/5/01 cmc
48h. Start: 1:20 2/5/01 cmc

Adsorption Kinetics | ETS-8-160 | Test Substance: PFOS

Soil/Sediment/Sludge Description:
Slg 1 = 2781 Domestic Sludge
TLR# 00065-029 (#4151 to 4160)
#00065-030 (#4161 to 4177)
#00065-031 (#4178 to 4180)

Initial pH of Stock Solution (pH Paper)
Stock Soln ID 01001-3-8
pH 5.6 T/D/I 12:45 2/1/01 cmc

Col 8 Bal ID 914 T/D/I 3:45pm 1 24 01 cmc
Col 9 Sol'n ID 00001-31-12 T/D/I 2:39pm 1 31 01 cmc

Col 10 Inc. ID I-12
Start Time T/D/I 2:35pm 1 31 01 cmc
Stop Time T/D/I 7:10am 2 1 01 cmc

Col 11 Stock Soln ID 01001-3-8 50mg/L PFOS
T/D/I 3:00pm 2 15 01 CMC

Col 12 (1) Equilibrate tubes/contents for designated hours. I-12
a 0 hour Start T/D/I NA
b 2 hour Stop T/D/I 12:35pm 2/1/01 cmc
c 4 hour Stop T/D/I 2:20pm 2/1/01 cmc
d 8 hour Stop T/D/I 2:45pm 2 15 01 cmc
Other NA
e 16 hour Stop T/D/I 6:10am 2/2/01 cmc
f 24 hour Stop T/D/I 10:45am 2/2/01 cmc
g 36 hour Stop T/D/I 6:05am 2/7/01 cmc
Other NA
h 48 hour Stop T/D/I 1:20pm 2/7/01 cmc

Col 13 Centrifuge tubes after removal.
a 0 hr T/D/I 9:55am 2/1/01 cmc
b 2 hr T/D/I 12:55pm 2/1/01 cmc
c 4 hr T/D/I 2:20pm 2/1/01 cmc
d 8 hr T/D/I 2:45pm 2/5/01 cmc
e 16 hr T/D/I 6:10am 2/2/01 cmc
f 24 hr T/D/I 10:45am 2/2/01 cmc
g 36 hr T/D/I 6:05am 2/7/01 cmc
h 48 hr T/D/I 1:00pm 2/7/01 cmc

Col 14 Balance ID 914
T/D/I 1:40pm 2/7/01 cmc

Col 15 pH one replicate of each set.
a 0 hr T/D/I 9:55am 2/1/01 cmc
b 2 hr T/D/I 1:15pm 2/1/01 cmc
c 4 hr T/D/I 2:40pm 2/1/01 cmc
d 8 hr T/D/I 3:00pm 2/5/01 cmc
e 16 hr T/D/I 7:20am 2/2/01 cmc
f 24 hr T/D/I 11:15am 2/2/01 cmc
g 36 hr T/D/I 7:15am 2/7/01 cmc
h 48 hr T/D/I 3:00pm 2/7/01 cmc

Col 17
a 0 hr T/D/I 9:55 2/1/01 cmc
b 2 hr T/D/I 1:15 2/1/01 cmc
c 4 hr T/D/I 2:40 2/1/01 cmc
d 8 hr T/D/I 3:00 2/5/01 cmc
e 16 hr T/D/I 7:20 2/2/01 cmc
f 24 hr T/D/I 11:15 2/2/01 cmc
g 36 hr T/D/I 7:15 2/7/01 cmc
h 48 hr T/D/I 3:00 2/7/01 cmc

Col 18
Spike Soln ID 00003-147 10ppm PFOS
a 0 hr T/D/I (2pm) 2/9/01 cmc
b 2 hr T/D/I
c 4 hr T/D/I
d 8 hr T/D/I
e 16 hr T/D/I
f 24 hr T/D/I
g 36 hr T/D/I
h 48 hr T/D/I (10:00am) 2/9/01 cmc
Internal Standard ID: 01001-02-01 20ppm THPFOS
T/D/I 11:30am 2/9/01 cmc

Col 19
Dilution Factor (if Required): 10x Dilution
Methanol ID: TNA-4755
T/D/I 3:00pm 2/7/01 cmc

Sample ID	MS	Type of Smpl	Type of Soil	Conc., Test Substance, mg/L (4)	Time Point	Soil:Solution Ratio	Weight of Soil, grams	mL of 0.01 M CaCl2 Soln	Equilibration (1) start/stop time	Stock Test Subst. Soln addition, uL	Equilibration (2) start/stop time	centrifuge	Weigh tube & contents, grams	Document pH	Sampling	Removal of mL of study sample soln (4)	Spike Amount, uL	Dilution Required?	Comments (2) (5)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	19
E00-1311-4151	—	Smpl	Slg 1	0.0	0	1:5	2.5083g								S1				12.5 uL I.S. 2/9/01 cmc
E00-1311-4152	—	Smpl	Slg 1	0.0	0	1:5	2.4950g								S1				
E00-1311-4153	—	Smpl	Slg 1	0.0	0	1:5	2.5073g							6.5	S1				
E00-1311-4153	MS	Smpl	Slg 1	0.0	0	1:5									S1		20uL		(3)
E00-1311-4154	—	Smpl	Slg 1	0.0	48	1:5	2.5105g						21.8500g		S1				
E00-1311-4155	—	Smpl	Slg 1	0.0	48	1:5	2.4850g						22.0839g		S1				
E00-1311-4156	—	Smpl	Slg 1	0.0	48	1:5	2.4483g						20.8183g	6.5	S1				
E00-1311-4156	MS	Smpl	Slg 1	0.0	48	1:5									S1		20uL		
E00-1311-4157	—	Smpl	Slg 1	5.0	0	1:5	2.4857g								S1				
E00-1311-4158	—	Smpl	Slg 1	5.0	0	1:5	2.4447g								S1				
E00-1311-4159	—	Smpl	Slg 1	5.0	0	1:5	2.4434g							6.5	S1				
E00-1311-4159	MS	Smpl	Slg 1	5.0	0	1:5									S1		20uL		
E00-1311-4160	—	Smpl	Slg 1	5.0	2	1:5	2.4924g								S1				
E00-1311-4161	—	Smpl	Slg 1	5.0	2	1:5	2.4454g								S1				
E00-1311-4162	—	Smpl	Slg 1	5.0	2	1:5	2.5176g							6.5	S1				
E00-1311-4162	MS	Smpl	Slg 1	5.0	2	1:5									S1		20uL		
E00-1311-4163	—	Smpl	Slg 1	5.0	4	1:5	2.4773g								S1				
E00-1311-4164	—	Smpl	Slg 1	5.0	4	1:5	2.5144g								S1				
E00-1311-4165	—	Smpl	Slg 1	5.0	4	1:5	2.4436g							6.5	S1				
E00-1311-4165	MS	Smpl	Slg 1	5.0	4	1:5									S1		20uL		
E00-1311-4166	—	Smpl	Slg 1	5.0	8	1:5	2.4450g								S1				
E00-1311-4167	—	Smpl	Slg 1	5.0	8	1:5	2.4831g								S1				
E00-1311-4168	—	Smpl	Slg 1	5.0	8	1:5	2.4775g							6.5	S1				
E00-1311-4168	MS	Smpl	Slg 1	5.0	8	1:5									S1		20uL		
E00-1311-4169	—	Smpl	Slg 1	5.0	16	1:5	2.5044g								S1				
E00-1311-4170	—	Smpl	Slg 1	5.0	16	1:5	2.5171g								S1				
E00-1311-4171	—	Smpl	Slg 1	5.0	16	1:5	2.5166g							6.5	S1				
E00-1311-4171	MS	Smpl	Slg 1	5.0	16	1:5									S1		20uL		
E00-1311-4172	—	Smpl	Slg 1	5.0	24	1:5	2.5007g								S1				
E00-1311-4173	—	Smpl	Slg 1	5.0	24	1:5	2.5020g								S1				
E00-1311-4174	—	Smpl	Slg 1	5.0	24	1:5	2.4994g							6.5	S1				
E00-1311-4174	MS	Smpl	Slg 1	5.0	24	1:5									S1		20uL		
E00-1311-4175	—	Smpl	Slg 1	5.0	36	1:5	2.4893g								S1				
E00-1311-4176	—	Smpl	Slg 1	5.0	36	1:5	2.5139g								S1				
E00-1311-4177	—	Smpl	Slg 1	5.0	36	1:5	2.4771g							6.5	S1				
E00-1311-4177	MS	Smpl	Slg 1	5.0	36	1:5									S1		20uL		
E00-1311-4178	—	Smpl	Slg 1	5.0	48	1:5	2.5021g						20.4483g		S1				
E00-1311-4179	—	Smpl	Slg 1	5.0	48	1:5	2.4837g						22.1209g		S1				
E00-1311-4180	—	Smpl	Slg 1	5.0	48	1:5	2.5205g						21.2687g	6.5	S1				
E00-1311-4180	MS	Smpl	Slg 1	5.0	48	1:5									S1		20uL		

(5) 48-hour samples: Aqueous layer removed, tubes stored at Room Temp until desorb step. (6) 1/24-01 cmc

(4) Samples stored under refrigeration in R-2 units! diluted and/or analyzed. (A) 4-24-01 cmc

GLP Study Number (1) E00-1311

2h. Start: 10:35 2/1/01 cmc 16h. Start: 8:00 2/1/01 cmc
4h. Start: 10:20 2/1/01 cmc 24h. Start: 10:45 2/1/01 cmc
8h. Start: 6:45 2/5/01 cmc 48h. Start: 1:20 2/5/01 cmc
36h. Start: 8:00 2/5/01 cmc

(2) Samples re-centrifuged @ 20,000 rcf for 1 hour on 3/15/01 cmc

(3) Samples diluted 1:1 3/20/01 cmc IS Added, MS Added 3/20/01 cmc

6 of 6

Desorption Kinetics, Serial Method

ETS-8-160

Test Substance:PFOS

Col 8: Centrifuge
T/D/I 2:40pm 2/12/01 cmc

Col 9: Solution addition
0.01 M CaCl2 Soln.
ID # 01001-03-15
Bal ID 914
② T/D/I 7:00am 2/13/01 cmc

Col 10: Shaker
Incubator ID: I-13 12 ③
Equilibration Start Time/Date/Initials 7:00pm 2/13/01 cmc

Col 12: 2 hours:
Equilibration Stop Time/Date/Initials 9:00pm 2/13/01 cmc
Centrifuge Time/Date/Initials 9:00pm 2/13/01 cmc
100uL Study Sample 9:30pm 2/13/01 cmc

Col 14: 4 hours:
Equilibration Stop Time/Date/Initials 11:00pm 2/13/01 cmc
Centrifuge Time/Date/Initials 11:00pm 2/13/01 cmc
100uL Study Sample 11:30pm 2/13/01 cmc

Col 16: 6 hours:
Equilibration Stop Time/Date/Initials 1:00am 2/14/01 cmc
Centrifuge Time/Date/Initials 1:00pm 2/13/01 cmc
100uL Study Sample 1:30pm 2/13/01 cmc

Col 18: 8 hours:
Equilibration Stop Time/Date/Initials 3:00pm 2/13/01 cmc
Centrifuge Time/Date/Initials 3:00pm 2/13/01 cmc
100uL Study Sample 3:30pm 2/13/01 cmc

Col 20: 24 hours:
Equilibration Stop Time/Date/Initials 7:00am 2/14/01 cmc
Centrifuge Time/Date/Initials 7:00am 2/14/01 cmc
100uL Study Sample 7:30am 2/14/01 cmc

Col 22: 32 hours:
Equilibration Stop Time/Date/Initials 3:00pm 2/14/01 cmc
Centrifuge Time/Date/Initials 3:00pm 2/14/01 cmc
100uL Study Sample 3:30pm 2/14/01 cmc

Col 24: 48 hours:
Equilibration Stop Time/Date/Initials 7:00am 2/15/01 cmc
Centrifuge Time/Date/Initials 7:00am 2/15/01 cmc
100uL Study Sample 7:30am 2/15/01 cmc

Col 25: Matrix Spike Addition: (24 and 48 hour only)
Matrix Spike Solution ID: 00003-147
Matrix Spike Solution Concentration: 10ppm PFOS
T/D/I 10:10am 2/12/01 cmc

Col 26: Internal Standard Addition:
Internal Standard ID: 01001-04-05
Internal Standard Concentration: 10ppm THPFOS
T/D/I 11:00am 2/12/01 cmc

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, ng/L	Time Point	Soil:Solution Ratio	Centrifuge	Add 0.01 M CaCl2 Soln. & Weigh	Place on shaker, record time	S2 (Desorption Samples)④	Desorption after 2 hrs	S3 (Desorption Samples)④	Desorption after 4 hrs	S4 (Desorption Samples)④	Desorption after 6 hrs	S5 (Desorption Samples)④	Desorption after 8 hrs	S6 (Desorption Samples)④	Desorption after 24 hrs	S7 (Desorption Samples)④	Desorption after 32 hrs	S8 (Desorption Samples)④	Desorption after 48 hrs	Matrix Spike Addition (24 and 48 hour samples), uL	Internal Standard Addition	Comments ④⑤
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	25
E00-1311-4004	—	Cntrl	NA	0.0	48	NA		19.5515 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4005	—	Cntrl	NA	0.0	48	NA		19.5801 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4006	—	Cntrl	NA	0.0	48	NA		19.5996 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4006	MS	Cntrl	NA	0.0	48	NA				S2		S3		S4		S5		S6		S7		S8		50 uL		
E00-1311-4028	—	Cntrl	NA	5.0	48	NA		19.8860 g		S2		S3		S4		S5		S6		S7		S8		N/A		
① E00-1311-4029	—	Cntrl	NA	5.0	48	NA				S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4030	—	Cntrl	NA	5.0	48	NA		19.8777 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4030	MS	Cntrl	NA	5.0	48	NA				S2		S3		S4		S5		S6		S7		S8		50 uL		
E00-1311-4034	—	Samp	Soil 1	0.0	48	1:5		22.1929 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4035	—	Samp	Soil 1	0.0	48	1:5		22.1046 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4036	—	Samp	Soil 1	0.0	48	1:5		22.0404 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4036	MS	Samp	Soil 1	0.0	48	1:5				S2		S3		S4		S5		S6		S7		S8		50 uL		
E00-1311-4058	—	Samp	Soil 1	5.0	48	1:5		22.2342 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4059	—	Samp	Soil 1	5.0	48	1:5		22.2992 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4060	—	Samp	Soil 1	5.0	48	1:5		22.4310 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4060	MS	Samp	Soil 1	5.0	48	1:5				S2		S3		S4		S5		S6		S7		S8		50 uL		
E00-1311-4064	—	Samp	Soil 2	0.0	48	1:5		22.1022 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4065	—	Samp	Soil 2	0.0	48	1:5		22.0830 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4066	—	Samp	Soil 2	0.0	48	1:5		22.1478 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4066	MS	Samp	Soil 2	0.0	48	1:5				S2		S3		S4		S5		S6		S7		S8		50 uL		
E00-1311-4088	—	Samp	Soil 2	5.0	48	1:5		22.2147 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4089	—	Samp	Soil 2	5.0	48	1:5		22.1748 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4090	—	Samp	Soil 2	5.0	48	1:5		22.3098 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4090	MS	Samp	Soil 2	5.0	48	1:5				S2		S3		S4		S5		S6		S7		S8		50 uL		

① Tube broke cmc 2/13/01

②(Re) cmc 2/13/01

③(Re) cmc 2/13/01

④ Samples stored under refrigeration in R-2 until diluted and/or analyzed. (AC) cmc 4-24-01

⑤ Samples diluted by hand w/a syringe (Re) cmc 4-24-01

⑥(Co) Concentration = 0.5 ng/L cmc 5/15/01

3M Environmental Laboratory

BACK TO MAIN

Col 8: Centrifuge
T/D/I 2:40pm 2/12/01 cmc
Col 9: Solution addition
0.01 M CaCl2 Soln.
ID # 01001-03-15
Bal ID 914
T/D/I 7:00am 2/13/01 cmc
Col 10: Shaker
Incubator ID: I-12
Equilibration Start Time/Date/Initials 7:00am 2/13 01 cmc
Col 12: 2 hours:
Equilibration Stop Time/Date/Initials 9:00am 2/13/01 cmc
Centrifuge Time/Date/Initials 9:00am 2/13/01 cmc
100uL Study Sample 9:30am 2/13/01 cmc
Col 14: 4 hours:
Equilibration Stop Time/Date/Initials 11:00am 2/13/01 cmc
Centrifuge Time/Date/Initials 11:00am 2/13/01 cmc
100uL Study Sample 11:30am 2/13/01 cmc

Col 16: 6 hours:
Equilibration Stop Time/Date/Initials 1:00pm 2/13/01 cmc
Centrifuge Time/Date/Initials 1:00pm 2/13/01 cmc
100uL Study Sample 1:30pm 2/13/01 cmc
Col 18: 8 hours:
Equilibration Stop Time/Date/Initials 3:00pm 2/13/01 cmc
Centrifuge Time/Date/Initials 3:00pm 2/13/01 cmc
100uL Study Sample 3:30pm 2/13/01 cmc
Col 20: 24 hours:
Equilibration Stop Time/Date/Initials 7:00am 2/14/01 cmc
Centrifuge Time/Date/Initials 7:00am 2/14/01 cmc
100uL Study Sample 7:30am 2/14/01 cmc
Col 22: 32 hours:
Equilibration Stop Time/Date/Initials 3:00pm 2/14/01 cmc
Centrifuge Time/Date/Initials 3:00pm 2/14/01 cmc
100uL Study Sample 3:30pm 2/14/01 cmc

Col 24: 48 hours:
Equilibration Stop Time/Date/Initials 7:00am 2/15/01 cmc
Centrifuge Time/Date/Initials 7:00am 2/15/01 cmc
100uL Study Sample 7:30am 2/15/01 cmc
Col 25: Matrix Spike Addition: (24 and 48 hour only)
Matrix Spike Solution ID: 00003-147
Matrix Spike Solution Concentration: 10ppm PFOS
T/D/I 10:10am 2/21/01 cmc
Col 26: Internal Standard Addition:
Internal Standard ID: 01001-04-05
Internal Standard Concentration: 10ppm THPFOS
T/D/I 11:00am 2/21/01 cmc

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L (3)(C)	Time Point	Soil:Solution Ratio	Centrifuge	Add 0.01 M CaCl2 Soln. & Weigh	Place on shaker, record time	S2 (Desorption Samples) (1)	Desorption after 2 hrs	S3 (Desorption Samples) (1)	Desorption after 4 hrs	S4 (Desorption Samples) (1)	Desorption after 6 hrs	S5 (Desorption Samples) (1)	Desorption after 8 hrs	S6 (Desorption Samples) (1)	Desorption after 24 hrs	S7 (Desorption Samples) (1)	Desorption after 32 hrs	S8 (Desorption Samples) (1)	Desorption after 48 hrs	Matrix Spike Addition (24 and 48 hour samples), uL	Internal Standard Addition	Comments (2)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	25
E00-1311-4094	—	Samp	Soil 3	0.0	48	1:5		22.1582 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4095	—	Samp	Soil 3	0.0	48	1:5		22.1574 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4096	—	Samp	Soil 3	0.0	48	1:5		22.1417 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4096	MS	Samp	Soil 3	0.0	48	1:5				S2		S3		S4		S5		S6		S7		S8		4 uL		
E00-1311-4118	—	Samp	Soil 3	0.0	48	1:5		22.2813 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4119	—	Samp	Soil 3	0.0	48	1:5		22.1920 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4120	—	Samp	Soil 3	0.0	48	1:5		22.1902 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4120	MS	Samp	Soil 3	0.0	48	1:5				S2		S3		S4		S5		S6		S7		S8		4 uL		
E00-1311-4124	—	Samp	Sed 1	0.0	48	1:5		22.1314 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4125	—	Samp	Sed 1	0.0	48	1:5		22.0273 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4126	—	Samp	Sed 1	0.0	48	1:5		22.3045 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4126	MS	Samp	Sed 1	0.0	48	1:5				S2		S3		S4		S5		S6		S7		S8		4 uL		
E00-1311-4148	—	Samp	Sed 1	0.0	48	1:5		22.3306 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4149	—	Samp	Sed 1	0.0	48	1:5		22.2684 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4150	—	Samp	Sed 1	0.0	48	1:5		22.4555 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4150	MS	Samp	Sed 1	0.0	48	1:5				S2		S3		S4		S5		S6		S7		S8		4 uL		
E00-1311-4154	—	Samp	Slg 1	0.0	48	1:5		21.7798 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4155	—	Samp	Slg 1	0.0	48	1:5		22.0946 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4156	—	Samp	Slg 1	0.0	48	1:5		80.7915 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4156	MS	Samp	Slg 1	0.0	48	1:5				S2		S3		S4		S5		S6		S7		S8		4 uL		
E00-1311-4178	—	Samp	Slg 1	0.0	48	1:5		20.4497 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4179	—	Samp	Slg 1	0.0	48	1:5		22.1718 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4180	—	Samp	Slg 1	0.0	48	1:5		21.1992 g		S2		S3		S4		S5		S6		S7		S8		N/A		
E00-1311-4180	MS	Samp	Slg 1	0.0	48	1:5				S2		S3		S4		S5		S6		S7		S8		4 uL		

(1) Samples stored under refrigeration until dilution and/or analysis (AC) cmc 4-24-01

(2) Samples diluted by hand w/a syringe (AC) cmc 4-24-01

(3)(C) Concentration = 0.5mg/L cmc 5/18/01

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Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	① mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	⑦ 1.8 mL of Sample	Spike Amount	Comments ⑧
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
E00-1311-5001	—	Control	NA	0	0	NA	S1	[redacted]	12.5									
E00-1311-5002	—	Control	NA	0	0	NA	S1	[redacted]	12.5									
E00-1311-5003	—	Control	NA	0	0	NA	S1	[redacted]	12.5						5.5			
E00-1311-5003	MS	Control	NA	0	0	NA	S1	—	12.5				—	—	—		20µL	
E00-1311-5004	—	Control	NA	0.5	0	NA	S1	[redacted]	12.5		12.5µL							
E00-1311-5005	—	Control	NA	0.5	0	NA	S1	[redacted]	12.5		12.5µL							
E00-1311-5006	—	Control	NA	0.5	0	NA	S1	[redacted]	12.5		12.5µL				5.5			
E00-1311-5006	MS	Control	NA	0.5	0	NA	S1	—	12.5				—	—	—		20µL	
E00-1311-5007	—	Control	NA	2.0	0	NA	S1	[redacted]	12.5		50µL							
E00-1311-5008	—	Control	NA	2.0	0	NA	S1	[redacted]	12.5		50µL							
E00-1311-5009	—	Control	NA	2.0	0	NA	S1	[redacted]	12.5		50µL				5.5			
E00-1311-5009	MS	Control	NA	2.0	0	NA	S1	—	12.5				—	—	—		20µL	
E00-1311-5010	—	Control	NA	5.0	0	NA	S1	[redacted]	~~12.5~~		125µL							
E00-1311-5011	—	Control	NA	5.0	0	NA	S1	[redacted]	~~12.5~~		125µL							
E00-1311-5012	—	Control	NA	5.0	0	NA	S1	[redacted]	~~12.5~~		125µL				5.5			
E00-1311-5012	MS	Control	NA	5.0	0	NA	S1	—	~~12.5~~				—	—	—		20µL	
E00-1311-5013	—	Control	NA	10	0	NA	S1	[redacted]	~~12.5~~		250µL							
E00-1311-5014	—	Control	NA	10	0	NA	S1	[redacted]	~~12.5~~		250µL							
E00-1311-5015	—	Control	NA	10	0	NA	S1	[redacted]	~~12.5~~		250µL				5.5			
E00-1311-5015	MS	Control	NA	10	0	NA	S1	—	~~12.5~~				—	—	—		20µL	
E00-1311-5016	—	Control	NA	50	0	NA	S1	[redacted]	~~12.5~~		1.25mL							
E00-1311-5017	—	Control	NA	50	0	NA	S1	[redacted]	~~12.5~~		1.25mL							
E00-1311-5018	—	Control	NA	50	0	NA	S1	[redacted]	~~12.5~~		1.25mL				5.5			
E00-1311-5018	MS	Control	NA	50	0	NA	S1	—	~~12.5~~				—	—	—		20µL	

Col 9 Balance ID NA
Time/Date/Initials NA / /

Col 10 0.01 M CaCl2 soln ID # 00001-34-12
Time/Date/Initials 2:10pm 2/12/01 CMC
pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2/12/01 CMC

Col 11 Inc ID I-12
Equil Start T/D/I 2:10pm 2/12/01 CMC
Equil Stop T/D/I 7:00am 2/13/01 CM

Col 12 Test Subst. ID # 01001-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials ~~8:45 2/13/01 CMC~~ ②

Col 13 Inc ID I-12
Equil Start T/D/I NA / /
Equil Stop T/D/I NA / /

Col 14 Balance ID NA
Time/Date/Initials NA / /

Col 15 T/D/I NA / /
②CMC 2/14/01

Col 16 T/D/I 2:00pm 2/14/01 CMC
Col 17 T/D/I 2:00pm 2/14/01 CMC
Col 18 Spike soln ID # 00003-147
Test Substance conc.: 10ppm
Time/Date/Initials 10:20am 2/20/01 CMC
Internal Standard ID # 01001-02-01
Internal STD conc.: 20ppm
Time/Date/Initials 11:40am 2/20/01 CMC

① Re 5.0mg/L Samples - 10.4mL $CaCl_2$ Sol
10.0mg/L Samples - 12.5mL $CaCl_2$ Sol
50.0mg/L Samples - 11.25mL $CaCl_2$ Sol
CMC 2/12/01

② Re 2:00pm 2/14/01 CMC

③ Diluted 1:1 on "Buckwheat" w/MeOH (NA-4755) 2/16/01 CMC

④ Diluted 1:10 on "Spanky" w/MeOH (NA-4755) 2/16/01 CMC

⑤ Diluted 1:100 on "Buckwheat" w/MeOH (NA-4755) 2/16/01 CMC

⑥ 12.5µL THPFOS Added (Internal Std) 2/20/01 CMC

⑦ Original Samples Diluted 1:1000, I.S. Added, MS Added 3/30/01 CMC

⑧ Samples stored under refrigeration until Diluted and/or analyzed RC CMC 4-24-01

Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	~1.8 mL of Sample (6)	Spike Amount	Comments (3) (7)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
E00-1311-5019	—	Control	NA	0	48	NA	S1		12.5				19.5758 g					(2) cmc 2/16/01
E00-1311-5020	—	Control	NA	0	48	NA	S1		12.5				19.6088 g					
E00-1311-5021	—	Control	NA	0	48	NA	S1		12.5				19.6562 g		5.5			
E00-1311-5021	MS	Control	NA	0	48	NA	S1	—	12.5					—	—		20uL	
E00-1311-5022	—	Control	NA	0.5	48	NA	S1		12.5				19.6184 g					
E00-1311-5023	—	Control	NA	0.5	48	NA	S1		12.5				19.6316 g					
E00-1311-5024	—	Control	NA	0.5	48	NA	S1		12.5				19.5663 g		5.5			
E00-1311-5024	MS	Control	NA	0.5	48	NA	S1	—	12.5					—	—		20uL	
E00-1311-5025	—	Control	NA	2.0	48	NA	S1		12.5		50uL		19.6483 g					(3) cmc 2/16/01
E00-1311-5026	—	Control	NA	2.0	48	NA	S1		12.5		50uL		19.6129 g					
E00-1311-5027	—	Control	NA	2.0	48	NA	S1		12.5		50uL		19.5777 g		5.5			
E00-1311-5027	MS	Control	NA	2.0	48	NA	S1	—	12.5		50uL			—	—		20uL	
E00-1311-5028	—	Control	NA	5.0	48	NA	S1		12.4		125uL		19.6503 g					(5) cmc 2/16/01
E00-1311-5029	—	Control	NA	5.0	48	NA	S1		12.4		125uL		19.6175 g					
E00-1311-5030	—	Control	NA	5.0	48	NA	S1		12.4		125uL		19.5744 g		5.5			
E00-1311-5030	MS	Control	NA	5.0	48	NA	S1	—	12.4		125uL			—	—		20uL	
E00-1311-5031	—	Control	NA	10	48	NA	S1		12.25		250uL		19.5839 g					(4) cmc 2/16/01
E00-1311-5032	—	Control	NA	10	48	NA	S1		12.25		250uL		19.6441 g					
E00-1311-5033	—	Control	NA	10	48	NA	S1		12.25		250uL		19.5883 g		5.5			
E00-1311-5033	MS	Control	NA	10	48	NA	S1	—	12.25		250uL			—	—		20uL	
E00-1311-5034	—	Control	NA	50	48	NA	S1		11.25		1.25mL		19.5815 g					
E00-1311-5035	—	Control	NA	50	48	NA	S1		11.25		1.25mL		19.7841 g					
E00-1311-5036	—	Control	NA	50	48	NA	S1		11.25		1.25mL		19.5672 g		5.5			
E00-1311-5036	MS	Control	NA	50	48	NA	S1	—	11.25		1.25mL			—	—		20uL	

Col 9 Balance ID NA
Time/Date/Initials NA
Col 10 0.01 M CaCl2 soln ID # 00001-34-12
Time/Date/Initials 2:10pm 2/12/01 cmc
pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2/12/01 cmc

(1) ~~12.25 5 [illegible]~~
(1) Stray marks cmc 2/13/01

Col 11 Inc ID I-12
Equil Start T/D/I 2:10pm 2/12/01 cmc
Equil Stop T/D/I 1:00pm 2/13/01 cmc

Col 12 Test Subst. ID # 01001-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials 8:45am 2/13/01 cmc

(2) Diluted 1:1 on "Buckwheat" w/MeOH (TNA-4755) 2/16/01 cmc
(3) Diluted 1:10 on "Spanky" w/MeOH (TNA-4755) 2/16/01 cmc
(4) Diluted 1:100 on "Buckwheat" w/MeOH (TNA-4755) 2/16/01 cmc

Col 13 Inc ID I-12
Equil Start T/D/I 8:45am 2/13/01 cmc
Equil Stop T/D/I 3:45am 2/15/01 cmc
Col 14 Balance ID 914
Time/Date/Initials 9:15am 2/15/01 cmc
Col 15 T/D/I NA

Col 16 T/D/I 10:10am 2/15/01 cmc
Col 17 T/D/I 10:10am 2/15/01 cmc
Col 18 Spike soln ID # 00003-147
Test Substance conc.: 10ppm
Time/Date/Initials 10:20am 2/20/01 cmc
Internal Standard ID # 01001-02-01
Internal STD conc.: 20ppm
Time/Date/Initials 11:40am 2/20/01 cmc

(5) 12.5 µL THPFOS Internal Std. Added 2/20/01 cmc
(6) Stored under refrigeration in R-2 until Diluted and/or analyzed (AC) cmc 4-24-01
(7) Aqueous layer removed and tubes stored at Room temp until desorb step. (AC) cmc 4-24-01

3M Environmental Laboratory

Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	+/- 1.8 mL of Sample (7)	Spike Amount	Comments (7)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
E00-1311-5037	—	Sample	Soil 1	0	0	1:5	S1	2.5150g	12.5									①
E00-1311-5038	—	Sample	Soil 1	0	0	1:5	S1	2.4664g	12.5									
E00-1311-5039	—	Sample	Soil 1	0	0	1:5	S1	2.4908g	12.5						6.5			
E00-1311-5039	MS	Sample	Soil 1	0	0	1:5	S1		12.5				—		—		20uL	
E00-1311-5040	—	Sample	Soil 1	0.5	0	1:5	S1	2.4853g	12.5		12.5uL							
E00-1311-5041	—	Sample	Soil 1	0.5	0	1:5	S1	2.4980g	12.5		12.5uL							
E00-1311-5042	—	Sample	Soil 1	0.5	0	1:5	S1	2.4898g	12.5		12.5uL				6.5			
E00-1311-5042	MS	Sample	Soil 1	0.5	0	1:5	S1		12.5		12.5uL		—		—		20uL	
E00-1311-5043	—	Sample	Soil 1	2.0	0	1:5	S1	2.5046g	12.5		50uL							⑤
E00-1311-5044	—	Sample	Soil 1	2.0	0	1:5	S1	2.5154g	12.5		50uL							
E00-1311-5045	—	Sample	Soil 1	2.0	0	1:5	S1	2.5162g	12.5		50uL				6.5			
E00-1311-5045	MS	Sample	Soil 1	2.0	0	1:5	S1		12.5		50uL		—		—		20uL	
E00-1311-5046	—	Sample	Soil 1	5.0	0	1:5	S1	2.4949g	12.4		125uL							④
E00-1311-5047	—	Sample	Soil 1	5.0	0	1:5	S1	2.5008g	12.4		125uL							
E00-1311-5048	—	Sample	Soil 1	5.0	0	1:5	S1	2.5210g	12.4		125uL				6.5			
E00-1311-5048	MS	Sample	Soil 1	5.0	0	1:5	S1		12.4		125uL		—		—		20uL	
E00-1311-5049	—	Sample	Soil 1	10	0	1:5	S1	2.4853g	12.25		250uL							⑥
E00-1311-5050	—	Sample	Soil 1	10	0	1:5	S1	2.5132g	12.25		250uL							
E00-1311-5051	—	Sample	Soil 1	10	0	1:5	S1	2.4976g	12.25		250uL				6.5			
E00-1311-5051	MS	Sample	Soil 1	10	0	1:5	S1		12.25		250uL		—		—		20uL	
E00-1311-5052	—	Sample	Soil 1	50	0	1:5	S1	2.5007g	11.25		1.25mL							③
E00-1311-5053	—	Sample	Soil 1	50	0	1:5	S1	2.5287g	11.25		1.25mL							
E00-1311-5054	—	Sample	Soil 1	50	0	1:5	S1	2.5062g	11.25		1.25mL				6.5			
E00-1311-5054	MS	Sample	Soil 1	50	0	1:5	S1		11.25		1.25mL		—		—		20uL	

Col 9 Balance ID 9/16
Time/Date/Initials 11:15am 1/29/01 cmc
Col 10 0.01 M CaCl2 soln ID # 0001-34-12
Time/Date/Initials 2:10pm 2/12/01 cmc
pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2/12/01 cmc

Soil 1 = Clay
TCR-00065-77
1/29/01 cmc

Col 11 Inc ID I-12
Equil Start T/D/I 2:10pm 2/12/01 cmc
Equil Stop T/D/I 1:20pm 2/13/01 cmc

Col 12 Test Subst. ID # 01001-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials 2:00pm 2/14/01 cmc

① Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

② Diluted 1:10 on "Spanky" w/MeOH TNA-4755 2/16/01 cmc

③ Diluted 1:100 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

Col 13 Inc ID NA
Equil Start T/D/I NA
Equil Stop T/D/I NA
Col 14 Balance ID NA
Time/Date/Initials NA

Col 15 T/D/I 2:00pm 2/14/01 cmc

⑤ Diluted 1:10 on "Spanky" w/MeOH TNA-4802 4/4/01 cmc

⑥ Diluted 1:100 "Buckwheat" w/MeOH TNA-4802 4/4/01 cmc

⑦ Samples stored under refrigeration in R-2 until Diluted and/or analyzed (AE) cmc 4-24-01

Col 16 T/D/I 2:00pm 2/14/01 cmc
Col 17 T/D/I 2:00pm 2/14/01 cmc
Col 18 Spike soln ID # 0003-147
Test Substance conc.: 10ppm
Time/Date/Initials 10:20am 2/20/01 cmc
④ Internal Standard ID # 01001-02-01
Internal STD conc.: 20ppm, 12.5uL Added
Time/Date/Initials 11:40am 2/20/01 cmc

Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	~1 mL of Sample (5)	Spike Amount	Comments (5) (6)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
E00-1311-5055	—	Sample	Soil 1	0	48	1:5	S1	2.4795g	12.5				22.1007 g					①
E00-1311-5056	—	Sample	Soil 1	0	48	1:5	S1	2.4884g	12.5				22.0264 g					
E00-1311-5057	—	Sample	Soil 1	0	48	1:5	S1	2.4879g	12.5				22.0984 g		6.5			
E00-1311-5057	MS	Sample	Soil 1	0	48	1:5	S1		12.5						—		20uL	
E00-1311-5058	—	Sample	Soil 1	0.5	48	1:5	S1	2.4936g	12.5		12.5uL		22.0866 g					
E00-1311-5059	—	Sample	Soil 1	0.5	48	1:5	S1	2.4691g	12.5		12.5uL		22.1312 g					
E00-1311-5060	—	Sample	Soil 1	0.5	48	1:5	S1	2.5098g	12.5		12.5uL		22.1723 g		6.5			
E00-1311-5060	MS	Sample	Soil 1	0.5	48	1:5	S1		12.5		12.5uL				—		20uL	
E00-1311-5061	—	Sample	Soil 1	2.0	48	1:5	S1	2.5170g	12.5		50uL		22.2061 g					
E00-1311-5062	—	Sample	Soil 1	2.0	48	1:5	S1	2.5023g	12.5		50uL		22.0393 g					
E00-1311-5063	—	Sample	Soil 1	2.0	48	1:5	S1	2.4912g	12.5		50uL		22.0090 g		6.5			
E00-1311-5063	MS	Sample	Soil 1	2.0	48	1:5	S1		12.5		50uL				—		20uL	
E00-1311-5064	—	Sample	Soil 1	5.0	48	1:5	S1	2.4820g	12.4		125uL		22.1045 g					
E00-1311-5065	—	Sample	Soil 1	5.0	48	1:5	S1	2.5173g	12.4		125uL		22.1517 g					
E00-1311-5066	—	Sample	Soil 1	5.0	48	1:5	S1	2.5088g	12.4		125uL		22.1483 g		6.5			
E00-1311-5066	MS	Sample	Soil 1	5.0	48	1:5	S1		12.4		125uL				—		20uL	
E00-1311-5067	—	Sample	Soil 1	10	48	1:5	S1	2.5042g	12.25		250uL		22.0951g					
E00-1311-5068	—	Sample	Soil 1	10	48	1:5	S1	2.4816g	12.25		250uL		22.0754g					
E00-1311-5069	—	Sample	Soil 1	10	48	1:5	S1	2.4892g	12.25		250uL		22.0107 g		6.5			
E00-1311-5069	MS	Sample	Soil 1	10	48	1:5	S1		12.25		250uL				—		20uL	
E00-1311-5070	—	Sample	Soil 1	50	48	1:5	S1	2.4872g	11.25		1.25mL		22.1186 g					
E00-1311-5071	—	Sample	Soil 1	50	48	1:5	S1	2.5011g	11.25		1.25mL		22.6038 g					
E00-1311-5072	—	Sample	Soil 1	50	48	1:5	S1	2.4959g	11.25		1.25mL		22.2037 g		6.5			
E00-1311-5072	MS	Sample	Soil 1	50	48	1:5	S1		11.25		1.25mL				—		20uL	

Col 9 Balance ID 916
Time/Date/Initials 1:15pm 1/29/01 cmc
Col 10 0.01 M CaCl2 soln ID # 00001-31-12
Time/Date/Initials 2:10pm 2/12/01 cmc
pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2/12/01 cmc

Col 11 Inc ID I-12
Equil Start T/D/I 2:10pm 2/12/01 cmc
Equil Stop T/D/I 7:00am 2/13/01 cmc
Col 12 Test Subst. ID # D1001-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials 8:45am 2/13/01 cmc

Col 13 Inc ID I-12
Equil Start T/D/I 8:45am 2/13/01 cmc
Equil Stop T/D/I 8:45am 2/15/01 cmc
Col 14 Balance ID 914
Time/Date/Initials 9:10am 2/15/01 cmc
Col 15 T/D/I 9:10am 2/15/01 cmc

Col 16 T/D/I 10:20am 2/15/01 cmc
Col 17 T/D/I 10:20am 2/15/01 cmc
Col 18 Spike soln ID # 00003-147
Test Substance conc.: 10ppm
Time/Date/Initials 10:20am 2/20/01 cmc
④ Internal Standard ID # D1001-02-01
Internal STD conc.: 20ppm, 125uL added
Time/Date/Initials 11:40am 2/20/01 cmc

Soil 1 = Clay
TCR-00065-77
1/29/01 cmc

① Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755
2/16/01 cmc

② Diluted 1:10 on "Spanky" w/MeOH TNA-4755
2/16/01 cmc

③ Diluted 1:100 on "Buckwheat" w/MeOH TNA-4755
2/16/01 cmc

⑤ Samples stored under refrigeration in R-2 until diluted and/or analyzed (AC) cmc 4-24-01

⑥ Aqueous layer removed and tubes stored at Room Temp until desorb step. (AC) cmc 4-24-01

Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	mL of Sample (7)	Spike Amount	Comments (7)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
E00-1311-5073	—	Sample	Soil 2	0	0	1:5	S1	2.5210g	12.5									
E00-1311-5074	—	Sample	Soil 2	0	0	1:5	S1	2.4828g	12.5									
E00-1311-5075	—	Sample	Soil 2	0	0	1:5	S1	2.4931g	12.5						6.0			
E00-1311-5075	MS	Sample	Soil 2	0	0	1:5	S1		12.5				—		—		20uL	
E00-1311-5076	—	Sample	Soil 2	0.5	0	1:5	S1	2.5117g	12.5		12.5uL							
E00-1311-5077	—	Sample	Soil 2	0.5	0	1:5	S1	2.4893g	12.5		12.5uL							
E00-1311-5078	—	Sample	Soil 2	0.5	0	1:5	S1	2.4858g	12.5		12.5uL				6.0			
E00-1311-5078	MS	Sample	Soil 2	0.5	0	1:5	S1		12.5		12.5uL		—		—		20uL	
E00-1311-5079	—	Sample	Soil 2	2.0	0	1:5	S1	2.4932g	12.5		50uL							
E00-1311-5080	—	Sample	Soil 2	2.0	0	1:5	S1	2.5126g	12.5		50uL							
E00-1311-5081	—	Sample	Soil 2	2.0	0	1:5	S1	2.4841g	12.5		50uL				6.0			
E00-1311-5081	MS	Sample	Soil 2	2.0	0	1:5	S1		12.5		50uL		—		—		20uL	
E00-1311-5082	—	Sample	Soil 2	5.0	0	1:5	S1	2.4970g	12.4		125uL							
E00-1311-5083	—	Sample	Soil 2	5.0	0	1:5	S1	2.4851g	12.4		125uL							
E00-1311-5084	—	Sample	Soil 2	5.0	0	1:5	S1	2.4867g	12.4		125uL				6.0			
E00-1311-5084	MS	Sample	Soil 2	5.0	0	1:5	S1		12.4		125uL		—		—		20uL	
E00-1311-5085	—	Sample	Soil 2	10	0	1:5	S1	2.5197g	12.25		250uL							
E00-1311-5086	—	Sample	Soil 2	10	0	1:5	S1	2.5023g	12.25		250uL							
E00-1311-5087	—	Sample	Soil 2	10	0	1:5	S1	2.50Hg	12.25		250uL				6.0			
E00-1311-5087	MS	Sample	Soil 2	10	0	1:5	S1		12.25		250uL		—		—		20uL	
E00-1311-5088	—	Sample	Soil 2	50	0	1:5	S1	2.5000g	11.25		1.25mL							
E00-1311-5089	—	Sample	Soil 2	50	0	1:5	S1	2.5080g	11.25		1.25mL							
E00-1311-5090	—	Sample	Soil 2	50	0	1:5	S1	2.4894g	11.25		1.25mL				6.0			
E00-1311-5090	MS	Sample	Soil 2	50	0	1:5	S1		11.25		1.25mL		—		—		20uL	

Col 9 Balance ID 9116
Time/Date/Initials 8:10am 1/30/01 cmc
Col 10 0.01 M CaCl2 soln ID # 0001-34-12
Time/Date/Initials 2:10pm 2/1/01 cmc
pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2/1/01 cmc

Col 11 Inc ID I-12
Equil Start T/D/I 2:10pm 2/1/01 cmc
Equil Stop T/D/I 1:00pm 2/13/01 cmc

Col 12 Test Subst. ID # 01001-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials 2:00pm 2/14/01 cmc

Col 13 Inc ID NA
Equil Start T/D/I NA
Equil Stop T/D/I NA
Col 14 Balance ID NA
Time/Date/Initials NA

Col 15 T/D/I 2:00pm 2/14/01 cmc

Col 16 T/D/I 2:00pm 2/14/01 cmc
Col 17 T/D/I 2:00pm 2/14/01 cmc
Col 18 Spike soln ID # 0003-147
Test Substance conc.: 10ppm
Time/Date/Initials 10:20am 2/20/01 cmc
(4) Internal Standard ID # 01001-02-01
Internal STD conc.: 20ppm. 12.5uL Added
Time/Date/Initials 11:40am 2/20/01 cmc

Soil #2 - Clay Loam
TCR # 00005-65
1/30/01 cmc

(1) Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

(2) Diluted 1:10 on "Spanky" w/MeOH TNA-4755 2/16/01 cmc

(3) Diluted 1:100 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

(5) Diluted 1:10 on "Spanky" w/MeOH TNA-4802 4/4/01 cmc

(6) Diluted 1:100 on "Buckwheat" w/MeOH TNA-4802 4/4/01 cmc

(7) Samples stored under refrigeration in R-2 until diluted and/or analyzed (AC) cmc 4-24-01

Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	~1.5 mL of Sample (9)	Spike Amount	Comments (6) (7)
1	2	3	4	5	6	7	8	g	10	11	12	13	14	15	16	17	18	
E00-1311-5091	—	Sample	Soil 2	0	48	1:5	S1	2.4916 g	12.5				22.0813 g					(2)
E00-1311-5092	—	Sample	Soil 2	0	48	1:5	S1	2.4957 (1) g	12.5				22.0057 g					
E00-1311-5093	—	Sample	Soil 2	0	48	1:5	S1	2.4947 g	12.5				22.0926 g		6.0			
E00-1311-5093	MS	Sample	Soil 2	0	48	1:5	S1		12.5						—		20uL	
E00-1311-5094	—	Sample	Soil 2	0.5	48	1:5	S1	2.5032 g	12.5		12.5uL		22.0119 g					
E00-1311-5095	—	Sample	Soil 2	0.5	48	1:5	S1	2.4944 g	12.5		12.5uL		22.0812 g					
E00-1311-5096	—	Sample	Soil 2	0.5	48	1:5	S1	2.4915 g	12.5		12.5uL		21.9716 g		6.0			
E00-1311-5096	MS	Sample	Soil 2	0.5	48	1:5	S1		12.5		12.5uL				—		20uL	
E00-1311-5097	—	Sample	Soil 2	2.0	48	1:5	S1	2.4779 g	12.5		50uL		22.0675 g					
E00-1311-5098	—	Sample	Soil 2	2.0	48	1:5	S1	2.4904 g	12.5		50uL		22.2990 g					
E00-1311-5099	—	Sample	Soil 2	2.0	48	1:5	S1	2.5058 g	12.5		50uL		22.1561 g		6.0			
E00-1311-5099	MS	Sample	Soil 2	2.0	48	1:5	S1		12.5		50uL				—		20uL	
E00-1311-5100	—	Sample	Soil 2	5.0	48	1:5	S1	2.5149 g	12.4		125uL		22.2040 g					
E00-1311-5101	—	Sample	Soil 2	5.0	48	1:5	S1	2.5150 g	12.4		125uL		22.2340 g					
E00-1311-5102	—	Sample	Soil 2	5.0	48	1:5	S1	2.5108 g	12.4		125uL		22.2205 g		6.0			
E00-1311-5102	MS	Sample	Soil 2	5.0	48	1:5	S1		12.4		125uL				—		20uL	
E00-1311-5103	—	Sample	Soil 2	10	48	1:5	S1	2.4835 g	12.25		250uL		21.9709 g					
E00-1311-5104	—	Sample	Soil 2	10	48	1:5	S1	2.4937 g	12.25		250uL		22.0381 g					
E00-1311-5105	—	Sample	Soil 2	10	48	1:5	S1	2.4917 g	12.25		250uL		22.0781 g		6.0			
E00-1311-5105	MS	Sample	Soil 2	10	48	1:5	S1		12.25		250uL				—		20uL	
E00-1311-5106	—	Sample	Soil 2	50	48	1:5	S1	2.5096 g	11.25		1.25mL		22.2109 g					(4)
E00-1311-5107	—	Sample	Soil 2	50	48	1:5	S1	2.4812 g	11.25		1.25mL		22.1313 g					
E00-1311-5108	—	Sample	Soil 2	50	48	1:5	S1	2.4857 g	11.25		1.25mL		22.1678 g		6.0			
E00-1311-5108	MS	Sample	Soil 2	50	48	1:5	S1		11.25		1.25mL				—		20uL	

Col 9 Balance ID 916
Time/Date/Initials 8:30am 1/30/01 cmc

Col 10 0.01 M CaCl2 soln ID # 00001-3472
Time/Date/Initials 2:10pm 2/12/01 cmc

pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2/12/01 cmc

Col 11 Inc ID I-12
Equil Start T/D/I 2:30pm 2/12/01 cmc
Equil Stop T/D/I 7:00am 2/13/01 cmc

Col 12 Test Subst. ID # 01001-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials 8:45am 2/13/01 cmc

Col 13 Inc ID I-13
Equil Start T/D/I 8:45am 2/13/01 cmc
Equil Stop T/D/I 8:45am 2/15/01 cmc

Col 14 Balance ID 914
Time/Date/Initials 9:25am 2/15/01 cmc

Col 15 T/D/I 9:25am 2/15/01 cmc

Col 16 T/D/I 10:35am 2/15/01 cmc
Col 17 T/D/I 10:35am 2/15/01 cmc
Col 18 Spike soln ID # 00003-147
Test Substance conc.: 10ppm
Time/Date/Initials 10:20am 2/20/01 cmc
(5) Internal Standard ID # 01001-02-01
Internal STD conc: 200ppm 12.5uL Added
Time/Date/Initials 11:40am 2/20/01 cmc

(7) (RE) cmc 1/30/01 2.5000g

Soil # 2 = Clay Loam
TCR # 00065-65
1/30/01 cmc

(2) Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

(3) Diluted 1:10 on "Spanky" w/MeOH TNA-4755 2/16/01 cmc

(4) Diluted 1:100 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

(6) Samples stored under refrigeration in R-2 until diluted and / or analyzed (AC) cmc 4-24-01

(7) Aqueous layer removed and tubes stored at Room Temp until desorb step (AC) cmc 4-24-01

Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	~1.8 mL of Sample (5)	Spike Amount	Comments (5)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
E00-1311-5109	—	Sample	Soil 3	0	0	1:5	S1	2.5251 g	12.5									⑥
E00-1311-5110	—	Sample	Soil 3	0	0	1:5	S1	2.5301 g	12.5									
E00-1311-5111	—	Sample	Soil 3	0	0	1:5	S1	2.5030 g	12.5						6.0			
E00-1311-5111	MS	Sample	Soil 3	0	0	1:5	S1		12.5				—		—		20uL	
E00-1311-5112	—	Sample	Soil 3	0.5	0	1:5	S1	2.4938 g	12.5		12.5uL							cmc 2/14/01
E00-1311-5113	—	Sample	Soil 3	0.5	0	1:5	S1	2.5220 g	12.5		12.5uL							
E00-1311-5114	—	Sample	Soil 3	0.5	0	1:5	S1	2.5188 g	12.5		12.5uL				6.0			
E00-1311-5114	MS	Sample	Soil 3	0.5	0	1:5	S1		12.5		12.5uL		—		—		20uL	
E00-1311-5115	—	Sample	Soil 3	2.0	0	1:5	S1	2.5025 g	12.5		50uL							
E00-1311-5116	—	Sample	Soil 3	2.0	0	1:5	S1	2.4887 g	12.5		50uL							
E00-1311-5117	—	Sample	Soil 3	2.0	0	1:5	S1	2.4952 g	12.5		50uL			cmc 2/14/01	6.0	cmc 2/14/01		
E00-1311-5117	MS	Sample	Soil 3	2.0	0	1:5	S1		12.5		50uL		—		—		20uL	⑤ cmc 2/30/01
E00-1311-5118	—	Sample	Soil 3	5.0	0	1:5	S1	2.4949 g	12.4	cmc 2/13/01	125uL	2/14/01						
E00-1311-5119	—	Sample	Soil 3	5.0	0	1:5	S1	2.4973 g	12.4		125uL							②
E00-1311-5120	—	Sample	Soil 3	5.0	0	1:5	S1	2.4971 g	12.4		125uL				6.6			
E00-1311-5120	MS	Sample	Soil 3	5.0	0	1:5	S1		12.4		125uL		—		—		20uL	
E00-1311-5121	—	Sample	Soil 3	10	0	1:5	S1	2.5098 g	12.25	cmc 2/12/01	250uL	cmc 2/14/01						
E00-1311-5122	—	Sample	Soil 3	10	0	1:5	S1	2.5067 g	12.25		250uL							
E00-1311-5123	—	Sample	Soil 3	10	0	1:5	S1	2.4949 g	12.25		250uL				6.0			
E00-1311-5123	MS	Sample	Soil 3	10	0	1:5	S1		12.25		250uL		—		—		20uL	
E00-1311-5124	—	Sample	Soil 3	50	0	1:5	S1	2.4978 g	11.25	cmc	1.25mL							③
E00-1311-5125	—	Sample	Soil 3	50	0	1:5	S1	2.4892 g	11.25		1.25mL							
E00-1311-5126	—	Sample	Soil 3	50	0	1:5	S1	2.5070 g	11.25		1.25mL				6.0			cmc 2/16/01
E00-1311-5126	MS	Sample	Soil 3	50	0	1:5	S1		11.25		1.25mL		—		—		20uL	

Col 9 Balance ID 914
Time/Date/Initials 11:30am 1/31/01 cmc
Col 10 0.01 M CaCl2 soln ID # 00001-34-12
Time/Date/Initials 2:10pm 2/12/01 cmc
pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2/12/01 cmc

Soil #3 - Sandy Loam
TCR-00065-009
1/31/01 cmc

Col 11 Inc ID I-12
Equil Start T/D/I 2:10pm 2/12/01 cmc
Equil Stop T/D/I 7:00am 2/13/01 cmc

Col 12 Test Subst. ID # 01001-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials 2:00pm 2/14/01 cmc

① Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc
② Diluted 1:10 on "Spanky" w/MeOH TNA-4755 2/16/01 cmc
③ Diluted 1:100 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc
⑤ Samples stored under refrigeration in R-2 until diluted and/or analyzed. (AC) cmc 4-24-01

Col 13 Inc ID NA
Equil Start T/D/I NA
Equil Stop T/D/I NA
Col 14 Balance ID NA
Time/Date/Initials NA

Col 15 T/D/I 2:00pm 2/14/01 cmc

Col 16 T/D/I 2:00pm 2/14/01 cmc
Col 17 T/D/I 2:00pm 2/14/01 cmc
Col 18 Spike soln ID # 00003-147
Test Substance conc.: 10ppm
Time/Date/Initials 10:20am 2/20/01 cmc
④ Internal Standard ID # 01001-02-01
Internal STD conc.: 20ppm, 12.5uL Added
Time/Date/Initials 11:40am 2/20/01 cmc

Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	~1.8 mL of Sample (2)	Spike Amount	Comments (3) (7)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
E00-1311-5127	—	Sample	Soil 3	0	48	1:5	S1	2.5083 g	12.5				22.1259 g					
E00-1311-5128	—	Sample	Soil 3	0	48	1:5	S1	2.5022 g	12.5				22.0748 g					(2)
E00-1311-5129	—	Sample	Soil 3	0	48	1:5	S1	2.4991 g	12.5				22.0425 g		6.0			
E00-1311-5129	MS	Sample	Soil 3	0	48	1:5	S1		12.5						—		20 µL	
E00-1311-5130	—	Sample	Soil 3	0.5	48	1:5	S1	2.4862 g	12.5		12.5uL		21.9819 g					
E00-1311-5131	—	Sample	Soil 3	0.5	48	1:5	S1	2.5069 g	12.5		12.5uL		22.1962 g					
E00-1311-5132	—	Sample	Soil 3	0.5	48	1:5	S1	2.4965 g	12.5		12.5uL		21.9903 g		6.0			
E00-1311-5132	MS	Sample	Soil 3	0.5	48	1:5	S1		12.5		12.5uL				—		20 µL	
E00-1311-5133	—	Sample	Soil 3	2.0	48	1:5	S1	2.4891 g	12.5		50uL		22.1251 g					
E00-1311-5134	—	Sample	Soil 3	2.0	48	1:5	S1	2.4995 g	12.5		50uL		21.9232 g					
E00-1311-5135	—	Sample	Soil 3	2.0	48	1:5	S1	2.5191 g	12.5		50uL		22.1301 g		6.0			
E00-1311-5135	MS	Sample	Soil 3	2.0	48	1:5	S1		12.5		50uL				—		20 µL	
E00-1311-5136	—	Sample	Soil 3	5.0	48	1:5	S1	2.4977 g	12.4		125uL		22.1794 g					
E00-1311-5137	—	Sample	Soil 3	5.0	48	1:5	S1	2.5107 g	12.4		125uL		22.0936 g					(3)
E00-1311-5138	—	Sample	Soil 3	5.0	48	1:5	S1	2.4999 g	12.4		125uL		22.0401 g		6.0			
E00-1311-5138	MS	Sample	Soil 3	5.0	48	1:5	S1		12.4		125uL				—		20 µL	
E00-1311-5139	—	Sample	Soil 3	10	48	1:5	S1	2.5016 g	12.25		250uL		22.1173 g					
E00-1311-5140	—	Sample	Soil 3	10	48	1:5	S1	2.5128 g	12.25		250uL		22.0128 g					
E00-1311-5141	—	Sample	Soil 3	10	48	1:5	S1	2.4954 g	12.25		250uL		22.0262 g		10.0			
E00-1311-5141	MS	Sample	Soil 3	10	48	1:5	S1		12.25		250uL				—		20 µL	
E00-1311-5142	—	Sample	Soil 3	50	48	1:5	S1	2.4982 g	11.25		1.25mL		22.1700 g					(4)
E00-1311-5143	—	Sample	Soil 3	50	48	1:5	S1	2.4837 g	11.25		1.25mL		22.1563 g					
E00-1311-5144	—	Sample	Soil 3	50	48	1:5	S1	2.5041 g	11.25		1.25mL		22.1644 g		6.0			
E00-1311-5144	MS	Sample	Soil 3	50	48	1:5	S1		11.25		1.25mL				—		20 µL	

Col 9 Balance ID 914
Time/Date/Initials 11:50am 1/31/01 cmc
Col 10 0.01 M CaCl2 soln ID # 00001-34-12
Time/Date/Initials 2:10pm 2/12/01 cmc
pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2/12/01 cmc

Soil #3 = Sandy Loam
TCR-00065-009
1/31/01 cmc

(1)(2) cmc 2/15/01

Col 11 Inc ID I-12
Equil Start T/D/I 9:10pm 2/12/01 cmc
Equil Stop T/D/I 7:00am 2/13/01 cmc

Col 12 Test Subst. ID # 01001-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials 8:45am 2/13/01 cmc

(2) Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

(3) Diluted 1:10 on "Spanky" w/MeOH TNA-4755 2/16/01 cmc

(4) Diluted 1:100 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

(6) Samples stored under Refrigeration in R-2 until diluted and/or analyzed (AC) cmc 4-24-01

Col 13 Inc ID I-12
Equil Start T/D/I 8:45am 2/13/01 cmc
Equil Stop T/D/I 8:45am 2/15/01 cmc
Col 14 Balance ID 914
Time/Date/Initials 9:38am 2/15/01 cmc
Col 15 T/D/I 9:40am 2/15/01 cmc

(7) Aqueous layer removed and tubes stored at Room temp until desorb Step. (AC) 4-24-01 cmc

Col 16 T/D/I 10:45am 2/15/01 cmc
Col 17 T/D/I 10:45am 2/15/01 cmc
Col 18 Spike soln ID # 00003-147
Test Substance conc.: 10ppm
Time/Date/Initials 10:20am 2/20/01 cmc
(5) Internal Standard ID # 01001-03-01 cmc
Internal STD conc.: 20ppm, 12.5uL Added
Time/Date/Initials 11:40am 2/20/01 cmc

GLP Study Number: E00-1311

3M Environmental Laboratory

Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	~1.8 mL of Sample ⑥	Spike Amount	Comments ⑥
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
E00-1311-5145	---	Sample	Sed 1	0	0	1:5	S1	2.4762g	12.5									①
E00-1311-5146	---	Sample	Sed 1	0	0	1:5	S1	2.47506g	12.5									
E00-1311-5147	---	Sample	Sed 1	0	0	1:5	S1	2.5037g	12.5									
E00-1311-5147	MS	Sample	Sed 1	0	0	1:5	S1		12.5				—		6.0	—	20uL	
E00-1311-5148	---	Sample	Sed 1	0.5	0	1:5	S1	2.4887g	12.5		12.5uL							
E00-1311-5149	---	Sample	Sed 1	0.5	0	1:5	S1	2.47629	12.5		12.5uL							
E00-1311-5150	---	Sample	Sed 1	0.5	0	1:5	S1	2.5142g	12.5		12.5uL				6.5			
E00-1311-5150	MS	Sample	Sed 1	0.5	0	1:5	S1		12.5		12.5uL		—		—	—	20uL	
E00-1311-5151	---	Sample	Sed 1	2.0	0	1:5	S1	2.4733g	12.5		50uL							
E00-1311-5152	---	Sample	Sed 1	2.0	0	1:5	S1	2.4881g	12.5		50uL							
E00-1311-5153	---	Sample	Sed 1	2.0	0	1:5	S1	2.5389g	12.5		50uL				6.0			
E00-1311-5153	MS	Sample	Sed 1	2.0	0	1:5	S1		12.5		50uL		—		—	—	20uL	
E00-1311-5154	---	Sample	Sed 1	5.0	0	1:5	S1	2.4954g	12.4		125uL							②
E00-1311-5155	---	Sample	Sed 1	5.0	0	1:5	S1	2.4880g	12.4		125uL							
E00-1311-5156	---	Sample	Sed 1	5.0	0	1:5	S1	2.4932g	12.4		125uL				6.0			
E00-1311-5156	MS	Sample	Sed 1	5.0	0	1:5	S1		12.4		125uL		—		—	—	20uL	
E00-1311-5157	---	Sample	Sed 1	10	0	1:5	S1	2.4859g	12.25		250uL							
E00-1311-5158	---	Sample	Sed 1	10	0	1:5	S1	2.4762g	12.25		250uL							
E00-1311-5159	---	Sample	Sed 1	10	0	1:5	S1	2.4815g	12.25		250uL				6.0			⑤
E00-1311-5159	MS	Sample	Sed 1	10	0	1:5	S1		12.25		250uL		—		—	—	20uL	
E00-1311-5160	---	Sample	Sed 1	50	0	1:5	S1	2.4861g	11.25		1.25mL							③
E00-1311-5161	---	Sample	Sed 1	50	0	1:5	S1	2.4832g	11.25		1.25mL							
E00-1311-5162	---	Sample	Sed 1	50	0	1:5	S1	2.5025g	11.25		1.25mL				6.0			
E00-1311-5162	MS	Sample	Sed 1	50	0	1:5	S1		11.25		1.25mL		—		—	—	20uL	

Col 9 Balance ID 9/6
Time/Date/Initials 1:15pm / 1/29/01 cmc
Col 10 0.01 M CaCl2 soln ID # 00001-34-12
Time/Date/Initials 2:10pm 2/1/01 cmc
pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2/1/01 cmc

Col 11 Inc ID I-12
Equil Start T/D/I 2:10pm 2/1/01 cmc
Equil Stop T/D/I 7:00am 2/13/01 cmc
Col 12 Test Subst. ID # 01001-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials 2:00pm 2/1/01 cmc

Col 13 Inc ID NA
Equil Start T/D/I NA
Equil Stop T/D/I NA
Col 14 Balance ID NA
Time/Date/Initials NA
Col 15 T/D/I 2:00pm 2/1/01 cmc

Col 16 T/D/I 2:00pm 2/1/01 cmc
Col 17 T/D/I 2:00pm 2/1/01 cmc
Col 18 Spike soln ID # 0003-147
Test Substance conc.: 1ppm
Time/Date/Initials 10:20am 2/20/01 cmc
④ Internal Standard ID # 0001-02-01
Internal STD conc.: 20ppm, 12.5uL Added
Time/Date/Initials 6:40am 2/20/01 cmc

Sed 1 = River Sediment
TCR-00065-70
1/29/01 cmc

① Diluted 1:1 on "Buckwheat" w/MeOH TNA-4756 2/16/01 cmc

② Diluted 1:10 on "Spanky" w/MeOH TNA-4755 2/16/01 cmc

③ Diluted 1:100 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

⑤ Diluted 1:100 on "Buckwheat" w/MeOH TNA-4802 4/4/01 cmc

⑥ Samples stored under refrigeration in R-2 until diluted and/or analyzed. (AC) cmc 4-24-01

Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	~1.8 mL of Sample (5)	Spike Amount	Comments (5) (6)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
E00-1311-5163	—	Sample	Sed 1	0	48	1:5	S1	2.4902g	12.5				21.9251 g				—	①
E00-1311-5164	—	Sample	Sed 1	0	48	1:5	S1	2.4719g	12.5				21.9872 g				—	
E00-1311-5165	—	Sample	Sed 1	0	48	1:5	S1	2.4857g	12.5				21.9418 g		7.0		—	
E00-1311-5165	MS	Sample	Sed 1	0	48	1:5	S1		12.5						—		20uL	
E00-1311-5166	—	Sample	Sed 1	0.5	48	1:5	S1	2.4857g	12.5		12.5uL		21.9769 g				—	
E00-1311-5167	—	Sample	Sed 1	0.5	48	1:5	S1	2.4859g	12.5		12.5uL		21.8920 g				—	
E00-1311-5168	—	Sample	Sed 1	0.5	48	1:5	S1	2.4830g	12.5		12.5uL		22.0460 g		7.0		—	
E00-1311-5168	MS	Sample	Sed 1	0.5	48	1:5	S1		12.5		12.5uL				—		20uL	
E00-1311-5169	—	Sample	Sed 1	2.0	48	1:5	S1	2.5149g	12.5		50uL		22.0389 g		—		—	
E00-1311-5170	—	Sample	Sed 1	2.0	48	1:5	S1	2.5179g	12.5		50uL		22.0606 g		—		—	
E00-1311-5171	—	Sample	Sed 1	2.0	48	1:5	S1	2.5098g	12.5		50uL		22.0261 g		7.0		—	
E00-1311-5171	MS	Sample	Sed 1	2.0	48	1:5	S1		12.5		50uL				—		20uL	
E00-1311-5172	—	Sample	Sed 1	5.0	48	1:5	S1	2.5183g	12.4		125uL		22.0547g		—		—	
E00-1311-5173	—	Sample	Sed 1	5.0	48	1:5	S1	2.5071g	12.4		125uL		22.1432 g		—		—	②
E00-1311-5174	—	Sample	Sed 1	5.0	48	1:5	S1	2.4806g	12.4		125uL		22.0635 g		7.0		—	
E00-1311-5174	MS	Sample	Sed 1	5.0	48	1:5	S1		12.4		125uL				—		20uL	
E00-1311-5175	—	Sample	Sed 1	10	48	1:5	S1	2.4972g	12.25		250uL		22.0784 g		—		—	
E00-1311-5176	—	Sample	Sed 1	10	48	1:5	S1	2.4823g	12.25		250uL		21.8876 g		—		—	
E00-1311-5177	—	Sample	Sed 1	10	48	1:5	S1	2.5006g	12.25		250uL		21.9967 g		7.0		—	
E00-1311-5177	MS	Sample	Sed 1	10	48	1:5	S1		12.25		250uL				—		20uL	
E00-1311-5178	—	Sample	Sed 1	50	48	1:5	S1	2.4740g	11.25		1.25mL		22.0748 g		—		—	③
E00-1311-5179	—	Sample	Sed 1	50	48	1:5	S1	2.4830g	11.25		1.25mL		22.0763 g		—		—	
E00-1311-5180	—	Sample	Sed 1	50	48	1:5	S1	2.4772g	11.25		1.25mL		22.1316 g		7.0		—	
E00-1311-5180	MS	Sample	Sed 1	50	48	1:5	S1		11.25		1.25mL				—		20uL	

Col 9 Balance ID 916
Time/Date/Initials 1:15pm 1/29/01 cmc
Col 10 0.01 M CaCl2 soln ID # 00001-34-12
Time/Date/Initials 2:10pm 2/12/01 cmc
pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2/12/01 cmc

Col 11 Inc ID I-12
Equil Start T/D/I 2:10pm 2/12/01 cmc
Equil Stop T/D/I 7:00am 2/13/01 cmc
Col 12 Test Subst. ID # 01001-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials 8:45am 2/13/01 cmc

Col 13 Inc ID I-12
Equil Start T/D/I 8:45am 2/13/01 cmc
Equil Stop T/D/I 8:45am 2/15/01 cmc
Col 14 Balance ID 914
Time/Date/Initials 9:45am 2/15/01 cmc
Col 15 T/D/I 9:45am 2/15/01 cmc

Col 16 T/D/I 11:00am 2/15/01 cmc
Col 17 T/D/I 11:00am 2/15/01 cmc
Col 18 Spike soln ID # 00003-147
Test Substance conc.: 1ppm
Time/Date/Initials 10:20am 2/20/01 cmc
(4) Internal Standard ID # 0001-02-01
Internal STD conc.: 20ppm, 12.5uL Added
Time/Date/Initials 11:40am 2/20/01 cmc

Sed 1 = River Sediment
TCR-00065-70
1/29/01 cmc

① Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

② Diluted 1:10 on "Spanky" w/MeOH TNA-4755 2/16/01 cmc

③ Diluted 1:100 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

⑤ Samples stored under refrigeration in R-2 until diluted and/or analyzed (AC) cmc 4-24-01

⑥ Aqueous layer removed and tubes stored at Room Temp until desorb step. (AC) cmc 4-24-01

Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	~1.8 mL of Sample (5)	Spike Amount	Comments (5)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
E00-1311-5181	---	Sample	Slg 1	0	0	1:5	S1	2.4851g	12.5									
E00-1311-5182	---	Sample	Slg 1	0	0	1:5	S1	2.5333g	12.5									
E00-1311-5183	---	Sample	Slg 1	0	0	1:5	S1	2.4810g	12.5						6.5			
E00-1311-5183	MS	Sample	Slg 1	0	0	1:5	S1		12.5						—		20uL	
E00-1311-5184	---	Sample	Slg 1	0.5	0	1:5	S1	2.4775g	12.5		12.5uL							
E00-1311-5185	---	Sample	Slg 1	0.5	0	1:5	S1	2.5291g	12.5		12.5uL							
E00-1311-5186	---	Sample	Slg 1	0.5	0	1:5	S1	2.4698g	12.5		12.5uL				6.5			
E00-1311-5186	MS	Sample	Slg 1	0.5	0	1:5	S1		12.5		12.5uL				—		20uL	
E00-1311-5187	---	Sample	Slg 1	2.0	0	1:5	S1	2.5167g	12.5		50uL							
E00-1311-5188	---	Sample	Slg 1	2.0	0	1:5	S1	2.4888g	12.5		50uL							
E00-1311-5189	---	Sample	Slg 1	2.0	0	1:5	S1	2.5137g	12.5	2/14/01	50uL	2/14/01		CMC 2/14/01	6.5	CMC 2/14/01		
E00-1311-5189	MS	Sample	Slg 1	2.0	0	1:5	S1		12.5		50uL				—		20uL	
E00-1311-5190	---	Sample	Slg 1	5.0	0	1:5	S1	2.4922g	12.4		125uL							
E00-1311-5191	---	Sample	Slg 1	5.0	0	1:5	S1	2.4678g	12.4		125uL							
E00-1311-5192	---	Sample	Slg 1	5.0	0	1:5	S1	2.4617g	12.4	2/13/01	125uL	2/14/01			6.5			
E00-1311-5192	MS	Sample	Slg 1	5.0	0	1:5	S1		12.4		125uL				—		20uL	
E00-1311-5193	---	Sample	Slg 1	10	0	1:5	S1	2.5128g	12.25		250uL							
E00-1311-5194	---	Sample	Slg 1	10	0	1:5	S1	2.4925g	12.25		250uL							
E00-1311-5195	---	Sample	Slg 1	10	0	1:5	S1	2.5268g	12.25		250uL				6.5			
E00-1311-5195	MS	Sample	Slg 1	10	0	1:5	S1		12.25		250uL				—		20uL	
E00-1311-5196	---	Sample	Slg 1	50	0	1:5	S1	2.5086g	11.25		1.25mL							
E00-1311-5197	---	Sample	Slg 1	50	0	1:5	S1	2.5167g	11.25		1.25mL							
E00-1311-5198	---	Sample	Slg 1	50	0	1:5	S1	2.4766g	11.25		1.25mL				6.5			
E00-1311-5198	MS	Sample	Slg 1	50	0	1:5	S1		11.25		1.25mL				—		20uL	

Comments (5):
- (1) 2/16/01 CMC
- (2) 2/16/01 CMC
- (3) 2/16/01 CMC
- (4) 2/20/01 CMC

Col 9 Balance ID 4/6
Time/Date/Initials 1:15pm 1 1/29/01 CMC
Col 10 0.01 M CaCl2 soln ID # 00001-34-12
Time/Date/Initials 2:10pm 2 1/2/01 CMC
pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2 1/2/01 CMC

Col 11 Inc ID I-12
Equil Start T/D/I 2:10pm 2 1/2/01 CMC
Equil Stop T/D/I 7:00am 2 1/3/01 CMC

Col 12 Test Subst. ID # 01001-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials 2:00pm 2 1/4/01 CMC

Col 13 Inc ID I-12
Equil Start T/D/I NA
Equil Stop T/D/I NA
Col 14 Balance ID NA
Time/Date/Initials NA
2:00pm
Col 15 T/D/I CMC 2 1/4/01 CMC

Col 16 T/D/I 2:00pm 2 1/4/01 CMC
Col 17 T/D/I 2:00pm 2 1/4/01 CMC
Col 18 Spike soln ID # 00003-147
Test Substance conc.: 10ppm
Time/Date/Initials 10:20am 2 1/30/01 CMC
(4) Internal Standard ID # 01001-02-01
Internal STD conc.: 200ppm, 12.5uL Added
Time/Date/Initials 11:40am 2 1/30/01 CMC

Slg 1 = Domestic Sludge
TCR-00065-031 (5181-5193)
TCR-00065-032 (5194-5198)
1/29/01 CMC

① Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755
2/16/01 CMC

② Diluted 1:10 on "Spanky" w/MeOH TNA-4755
2/16/01 CMC

③ Diluted 1:100 on "Buckwheat" w/MeOH TNA-4755
2/16/01 CMC

⑤ Samples stored under refrigeration in R-2 until diluted and/or analyzed.
AC CMC 4-24-01

Adsorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point	Soil:Solution Ratio	Sample Descriptor	Weight of Soil, grams (2.50 +/- 0.05)	mL of 0.01 M CaCl2 Soln	Equilibration (at least 12 hours)	Test Subst. Addition (Record vol)	Equilibration (48 hours)	Weigh container (Record grams)	centrifuge (Y/N)	Document pH	~18 mL of Sample (5)	Spike Amount	Comments (5) (6)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
E00-1311-5199	---	Sample	Slg 1	0	48	1:5	S1	2.4672g	12.5				21.1152 g					(6)
E00-1311-5200	---	Sample	Slg 1	0	48	1:5	S1	2.4979g	12.5				21.1516 g					
E00-1311-5201	---	Sample	Slg 1	0	48	1:5	S1	2.5118g	12.5				19.4464 g		6.5			
E00-1311-5201	MS	Sample	Slg 1	0	48	1:5	S1		12.5						—		20uL	
E00-1311-5202	---	Sample	Slg 1	0.5	48	1:5	S1	2.5318g	12.5		12.5uL		21.1401 g					
E00-1311-5203	---	Sample	Slg 1	0.5	48	1:5	S1	2.4861g	12.5		12.5uL		21.9551 g					
E00-1311-5204	---	Sample	Slg 1	0.5	48	1:5	S1	2.5256g	12.5		12.5uL		21.8869 g		6.5			
E00-1311-5204	MS	Sample	Slg 1	0.5	48	1:5	S1		12.5		12.5uL				—		20uL	
E00-1311-5205	---	Sample	Slg 1	2.0	48	1:5	S1	2.5249g	12.5		50uL		21.7703 g					
E00-1311-5206	---	Sample	Slg 1	2.0	48	1:5	S1	2.5129g	12.5		50uL		21.8297 g					
E00-1311-5207	---	Sample	Slg 1	2.0	48	1:5	S1	2.5416g	12.5		50uL		21.8559 g		6.5			
E00-1311-5207	MS	Sample	Slg 1	2.0	48	1:5	S1		12.5		50uL				—		20uL	
E00-1311-5208	---	Sample	Slg 1	5.0	48	1:5	S1	2.5070g	12.4		125uL		20.6523 g					(2)
E00-1311-5209	---	Sample	Slg 1	5.0	48	1:5	S1	2.5432g	12.4		125uL		20.3945 g					
E00-1311-5210	---	Sample	Slg 1	5.0	48	1:5	S1	2.5467g	12.4		125uL		21.1002 g		6.5			
E00-1311-5210	MS	Sample	Slg 1	5.0	48	1:5	S1		12.4		125uL				—		20uL	
E00-1311-5211	---	Sample	Slg 1	10	48	1:5	S1	2.5184g	12.25		250uL		21.6105 g					
E00-1311-5212	---	Sample	Slg 1	10	48	1:5	S1	2.4757g	12.25		250uL		20.5846 g					
E00-1311-5213	---	Sample	Slg 1	10	48	1:5	S1	2.5102g	12.25		250uL		20.3470 g		6.5			
E00-1311-5213	MS	Sample	Slg 1	10	48	1:5	S1		12.25		250uL				—		20uL	
E00-1311-5213	---	Sample	Slg 1	50	48	1:5	S1	2.5370g	11.25		1.25mL		20.7476 g					(3)
E00-1311-5214	---	Sample	Slg 1	50	48	1:5	S1	2.4996g	11.25		1.25mL		21.3931 g					
E00-1311-5215	---	Sample	Slg 1	50	48	1:5	S1	2.5362g	11.25		1.25mL		20.8529 g		6.5			
E00-1311-5215	MS	Sample	Slg 1	50	48	1:5	S1		11.25		1.25mL				—		20uL	

Col 9 Balance ID 916
Time/Date/Initials 1:16 / 1/29/01 cmc
Col 10 0.01 M CaCl2 soln ID #2000-34-72
Time/Date/Initials 2:19pm 2/12/01 cmc
pH of Test Soln. 5.5
Time/Date/Initials 2:30pm 2/12/01 cmc

Col 11 Inc ID I-12
Equil Start T/D/I 2:10pm 2/12/01 cmc
Equil Stop T/D/I 7:00pm 2/13/01 cmc
Col 12 Test Subst. ID # D100-03-07
Test Substance conc.: 500ug/ml
Time/Date/Initials 8:45am 2/13/01 cmc

Col 13 Inc ID I-12
Equil Start T/D/I 8:45am 2/13/01 cmc
Equil Stop T/D/I 8:45am 2/15/01 cmc
Col 14 Balance ID 914
Time/Date/Initials 9:55am 2/15/01 cmc
Col 15 T/D/I 9:55am 2/15/01 cmc

Col 16 T/D/I 11:15am 2/15/01 cmc
Col 17 T/D/I 11:15am 2/15/01 cmc
Col 18 Spike soln ID # 0003-147
Test Substance conc.: 10ppm
Time/Date/Initials 11:20am 2/20/01 cmc
(4) Internal Standard ID # D100-02-01 cmc
Internal STD conc.: 20ppm, 125uL added
Time/Date/Initials 11:40am 2/20/01 cmc

Slg 1 = Domestic Sludge
TCR- 00065-032 (5199-5209)
TCR- 00094-0028 (5210-5215)
1/29/01 cmc

① Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

② Diluted 1:10 on "Spanky" w/MeOH TNA-4755 2/16/01 cmc

③ Diluted 1:100 on "Buckwheat" w/MeOH TNA-4755 2/16/01 cmc

(5) Samples stored under refrigeration in 2-8 until diluted and/or analyzed. (AK) 4-24-01 cmc

(6) Aqueous layer removed and tubes stored at Room temp until desorb step (AK) cmc 4-24-01

Desorption Isotherms, Multiple Concentrations ETS-8-160 Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, ng/L	Time Point, hours	Soil:Solution Ratio	Centrifuge, if necessary	Add fresh CaCl2 aqueous & Weigh tube + contents	Equilibrate for 48 hours	Centrifuge	Sampling	1.8 mL of Study Sample (5)	Internal Standard Addition, uL (1)	Spike Amount	Sampling	Centrifuge & Remove aqueous	Add 4.0mL methanol	Centrifuge & Transfer to a second tube	Add 4.0mL methanol	Centrifuge & Transfer	Add 4.0mL methanol	Centrifuge & Transfer	1.8 mL of Study Sample (4)	Spike Amount	Internal Standard Addition, uL	Comments (4)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
E00-1311-5019	---	Control	NA	0	48	NA		19.5539g			S2				S3											
E00-1311-5020	---	Control	NA	0	48	NA		19.6389g			S2				S3											
E00-1311-5021	---	Control	NA	0	48	NA		19.6475g			S2				S3											
E00-1311-5021	MS	Control	NA	0	48	NA		—			S2			20µL	S3									20µL		
E00-1311-5022	---	Control	NA	0.5	48	NA		19.6602g			S2				S3											
E00-1311-5023	---	Control	NA	0.5	48	NA		19.6257g			S2				S3											
E00-1311-5024	---	Control	NA	0.5	48	NA		19.5343g			S2				S3											
E00-1311-5024	MS	Control	NA	0.5	48	NA		—			S2			20µL	S3									20µL		
E00-1311-5025	---	Control	NA	2.0	48	NA		19.6205g			S2				S3											
E00-1311-5026	---	Control	NA	2.0	48	NA		19.6862g			S2				S3											
E00-1311-5027	---	Control	NA	2.0	48	NA		19.5545g			S2				S3											
E00-1311-5027	MS	Control	NA	2.0	48	NA		—			S2			20µL	S3									20µL		
E00-1311-5028	---	Control	NA	5.0	48	NA	2/19/01	19.6312g			S2				S3											
E00-1311-5029	---	Control	NA	5.0	48	NA		19.7069g			S2				S3											
E00-1311-5030	---	Control	NA	5.0	48	NA		19.5531g			S2				S3											
E00-1311-5030	MS	Control	NA	5.0	48	NA		—			S2			20µL	S3									20µL		
E00-1311-5031	---	Control	NA	10	48	NA		19.5679g			S2				S3											
E00-1311-5032	---	Control	NA	10	48	NA		19.6506g			S2				S3											
E00-1311-5033	---	Control	NA	10	48	NA		19.5573g			S2				S3											
E00-1311-5033	MS	Control	NA	10	48	NA		—			S2			20µL	S3									20µL		
E00-1311-5034	---	Control	NA	50	48	NA	NA CMC 2/19/01	19.5821g			S2				S3											
E00-1311-5035	---	Control	NA	50	48	NA		19.7165g			S2				S3											
E00-1311-5036	---	Control	NA	50	48	NA		19.5482g			S2				S3											
E00-1311-5036	MS	Control	NA	50	48	NA		—			S2			20µL	S3									20µL		

Col 8 T/D/I NA CMC 2/19/01

Col 9 0.01 M CaCl2 soln ID # 01001-03-15

Balance ID 914

T/D/I 8:40 AM 2/19/01 CMC

Col 10 Incubator ID I-12

Equil Start T/D/I 11:00 AM 2/19/01 CMC

Equil Stop T/D/I 11:00 AM 2/21/01 CMC

Col 11 Centrifuge

T/D/I N/A

Col 13 T/D/I 2:00 PM 2/21/01 CMC

Col 14 Internal Standard ID # 01001-02-01

Internal Std. Conc. 20ppm THPFOS

T/D/I 10:50 AM 2/22/01 CMC

Col 15 Spike soln ID # 00003-147

Spike Sol. Conc. 10ppm PFOS

T/D/I 10:15 AM 2/22/01 CMC

Col 17 T/D/I 12:00 PM 2/22/01 CMC

Col 18 MeOH ID # TNA-4451

T/D/I 12:50 PM 2/22/01 CMC

Col 19 Centrifuge & Transfer

T/D/I NA

Col 20 MeOH ID # TNA-4451

T/D/I 12:50 PM 2/22/01 CMC

Col 21 Centrifuge & Transfer

T/D/I NA

Col 22 MeOH ID # TNA-4451

T/D/I 12:50 PM 2/22/01 CMC

Col 23 Centrifuge & Transfer

T/D/I NA

Col 24 Aliquot Study Sample

T/D/I 1:00 PM 2/22/01 CMC

Col 25 Spike soln ID # 00003-147

Spike Sol. Conc. 10ppm PFOS

T/D/I 2:00 PM 2/23/01 CMC

Col 26 Internal Standard ID # 01001-02-01

Internal Std. Conc. 20ppm THPFOS

T/D/I 2:00 PM 2/23/01 CMC

(1) Insert → S2 samples Diluted 1:1 w/MeOH TNA-4755 on "Buckwheat" 2/22/01 CMC

(2) (NC) CMC 2/22/01

(3) Samples Diluted 1:1 w/MeOH TNA-4755 on "Buckwheat" 2/23/01 CMC

(4) Samples stored under refrigeration in R-2 until diluted and/or analyzed. (AC) CMC 4-24-01

(5) Sample tubes stored at room temp until extraction step. (AC) CMC 4-24-01

GLP Study Number: E00-1311

1 of 6

3M Environmental Laboratory

Desorption Isotherms, Multiple Concentrations

ETS-8-160

Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point, hours	Soil:Solution Ratio	Centrifuge, if necessary	Add to Sr. CaCl2 Aqueous & Weigh tube & Contents	Equilibrate for 48 hours	Centrifuge	Sampling	Aliquot of Study Sample (7)	Internal Standard Addition, uL (2)	Spike Amount	Sampling	Centrifuge & Remove Aqueous	Add 4.0mL methanol	Centrifuge & Transfer to a second tube	Add 4.0mL methanol	Centrifuge & Transfer	Add 4.0mL methanol	Centrifuge & Transfer	Aliquot of Study Sample (7)	Spike Amount	Internal Standard Addition, uL	Comments (7)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
E00-1311-5055	---	Sample	Soil 1	0	48	1:5		22.0939g			S2				S3											
E00-1311-5056	---	Sample	Soil 1	0	48	1:5		22.0244g			S2				S3											
E00-1311-5057	---	Sample	Soil 1	0	48	1:5		22.0602g			S2				S3											
E00-1311-5057	MS	Sample	Soil 1	0	48	1:5					S2				S3											
E00-1311-5058	---	Sample	Soil 1	0	48	1:5					S2				S3											
E00-1311-5059	---	Sample	Soil 1	0.5	48	1:5		22.0650g			S2			20µL	S3											
E00-1311-5060	---	Sample	Soil 1	0.5	48	1:5		22.1277g			S2				S3											
E00-1311-5060	MS	Sample	Soil 1	0.5	48	1:5		22.1714g			S2				S3											
E00-1311-5061	---	Sample	Soil 1	2.0	48	1:5					S2				S3											
E00-1311-5062	---	Sample	Soil 1	2.0	48	1:5		22.2317g			S2			20µL	S3											
E00-1311-5063	---	Sample	Soil 1	2.0	48	1:5		22.0382g	2/21/01	2/21/01	S2	2/21/01			S3	2/22/01	2/22/01	2/22/01	2/22/01	2/22/01	2/22/01	2/22/01				
E00-1311-5063	MS	Sample	Soil 1	2.0	48	1:5		22.0278g			S2				S3											
E00-1311-5064	---	Sample	Soil 1	5.0	48	1:5					S2				S3											
E00-1311-5065	---	Sample	Soil 1	5.0	48	1:5		22.1296g			S2			20µL	S3											
E00-1311-5066	---	Sample	Soil 1	5.0	48	1:5		22.1951g			S2				S3											
E00-1311-5066	MS	Sample	Soil 1	5.0	48	1:5		22.1412g	2/19/01	2/19/01	S2	2/19/01			S3	2/22/01	2/22/01	2/22/01	2/22/01	2/22/01	2/22/01	2/22/01				
E00-1311-5067	---	Sample	Soil 1	5.0	48	1:5					S2				S3											
E00-1311-5068	---	Sample	Soil 1	10	48	1:5		22.0792g			S2			20µL	S3											
E00-1311-5069	---	Sample	Soil 1	10	48	1:5		22.1582g			S2				S3											
E00-1311-5069	MS	Sample	Soil 1	10	48	1:5		22.0422g			S2				S3											
E00-1311-5070	---	Sample	Soil 1	50	48	1:5					S2				S3											
E00-1311-5071	---	Sample	Soil 1	50	48	1:5		22.1308g			S2			20µL	S3											
E00-1311-5072	---	Sample	Soil 1	50	48	1:5		22.6071g			S2				S3											
E00-1311-5072	MS	Sample	Soil 1	50	48	1:5		22.2474g			S2				S3											

(7) Samples stored under refrigeration in R-2 until Dilution and/or analysis (NE) CMC 4-24-01
(8) Sample tubes stored at room temp until extraction Step. (NE) CMC 4-24-01

Col 8 T/D/I 7:30am 2/19/01 CMC
Col 9 0.01 M CaCl2 soln ID #01001-03-15
Balance ID 914
T/D/I 9:05am 2/19/01 CMC
Col 10 Incubator ID I-12
Equil Start T/D/I 11:00am 2/19/01 CMC
Equil Stop T/D/I 11:00am 2/21/01 CMC
Col 11 Centrifuge
T/D/I 11:00am 2/21/01 CMC
(1)(5) 22.0348g 2/19/01 CMC

GLP Study Number: E00-1311

Col 13 T/D/I 12:15pm 2/21/01 CMC
Col 14 Internal Standard ID #01001-02-01
Internal Std. Conc. 20ppm THPFOS
T/D/I 10:50am 2/22/01 CMC
Col 15 Spike soln ID #00003-147
Spike Sol. Conc. 10ppm PFOS
T/D/I 10:15am 2/22/01 CMC
Col 17 T/D/I 2:00 2/22/01 CMC
Col 18 MeOH ID # TNA-4451
T/D/I 1:10pm 2/22/01 CMC

(2)-S2 samples diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/22/01 CMC

(3)(NE) 2/22/01 CMC

Col 19 Centrifuge & Transfer
T/D/I 2:15pm 2/22/01 CMC
Col 20 MeOH ID # TNA-4451
T/D/I 1:30pm 2/22/01 CMC
Col 21 Centrifuge & Transfer
T/D/I 1:35pm 2/22/01 CMC
Col 22 MeOH ID # TNA-4451
T/D/I 1:45pm 2/22/01 CMC

(4) Samples diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/23/01 CMC

(5) Samples Diluted 1:10, IS Added, MS Added 3/30/01 CMC (S-2 samples)

Col 23 Centrifuge & Transfer
T/D/I 1:50pm 2/22/01 CMC
Col 24 Aliquot Study Sample
T/D/I 2:00pm 2/22/01 CMC
Col 25 Spike soln ID #00003-147
Spike Sol. Conc. 10ppm PFOS
T/D/I 2:00pm 2/23/01 CMC
Col 26 Internal Standard ID #01001-02-01
Internal Std. Conc. 20ppm THPFOS
T/D/I 2:00pm 2/23/01 CMC

(6) S8 Samples Diluted 1:100, IS Added, MS Added 3/30/01 CMC

3M Environmental Laboratory

Desorption Isotherms, Multiple Concentrations ETS-8-160 Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point, hours	Soil:Solution Ratio	Centrifuge, if necessary	Add fresh CaCl2 (aqueous) & Weigh tube + contents	Equilibrate for 48 hours	Centrifuge	Sampling	Internal Standard Addition, mL	Spike Amount	Sampling	Centrifuge & Remove Aqueous	Add 4.0mL methanol	Centrifuge & Transfer to a second tube	Add 4.0mL methanol	Centrifuge & Transfer	Add 4.0mL methanol	Centrifuge & Transfer	1/8 mL of Study Sample (7)	Spike Amount	Internal Standard Addition, mL	Comments (6)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24 (3)	25 (3)	26 (3)	27 (3)
E00-1311-5091	---	Sample	Soil 2	0	48	1:5		22.0589g			S2			---	S3											(4)
E00-1311-5092	---	Sample	Soil 2	0	48	1:5		22.0194 g			S2			---	S3											
E00-1311-5093	---	Sample	Soil 2	0	48	1:5		22.0509 g			S2			---	S3											
E00-1311-5093	MS	Sample	Soil 2	0	48	1:5		———			S2			20µL	S3										20µL	
[illegible]								22.0271 g																		
E00-1311-5095	---	Sample	Soil 2	0.5	48	1:5		22.1114 g			S2			---	S3											
E00-1311-5096	---	Sample	Soil 2	0.5	48	1:5		21.9384 g			S2			---	S3											
E00-1311-5096	MS	Sample	Soil 2	0.5	48	1:5		———			S2			20µL	S3										20µL	
E00-1311-5097	---	Sample	Soil 2	2.0	48	1:5		22.0409 g			S2			---	S3											
E00-1311-5098	---	Sample	Soil 2	2.0	48	1:5		22.3547 g			S2			---	S3											
E00-1311-5099	---	Sample	Soil 2	2.0	48	1:5		22.1473 g			S2			---	S3											
E00-1311-5099	MS	Sample	Soil 2	2.0	48	1:5		———			S2			20µL	S3										20µL	
[illegible]								22.1998 g																		
E00-1311-5101	---	Sample	Soil 2	5.0	48	1:5	2/19/01 cmc	22.3336 g	2/21/01 cmc	2/21/01 cmc	S2	2/21/01 cmc	2/22/01 cmc	---	S3	2/23/01 cmc	2/23/01 cmc	2/23/01 cmc	2/23/01 cmc	2/23/01 cmc	2/23/01 cmc	2/23/01 cmc	2/23/01 cmc	12.5µL	2/23/01 cmc	
E00-1311-5102	---	Sample	Soil 2	5.0	48	1:5		22.2449 g			S2			---	S3											
E00-1311-5102	MS	Sample	Soil 2	5.0	48	1:5		———			S2			20µL	S3										20µL	
E00-1311-5103	---	Sample	Soil 2	10	48	1:5		21.9866 g			S2			---	S3											
[illegible]								22.0848 g																		
E00-1311-5105	---	Sample	Soil 2	10	48	1:5		22.0843g			S2			---	S3											
E00-1311-5105	MS	Sample	Soil 2	10	48	1:5		———			S2			20µL	S3										20µL	
E00-1311-5106	---	Sample	Soil 2	50	48	1:5		22.2560 g			S2			---	S3											
E00-1311-5107	---	Sample	Soil 2	50	48	1:5		22.2226 g			S2			---	S3											
E00-1311-5108	---	Sample	Soil 2	50	48	1:5		22.1719 g			S2			---	S3											
E00-1311-5108	MS	Sample	Soil 2	50	48	1:5		———			S2			20µL	S3										20µL	

(2) Samples stored under refrigeration in 2-2 until dilution and/or analysis (1C) cmc 4-24-01

(1) Sample tubes stored at room temp until extraction step. (AC) 4-24-01

Col 8 T/D/I 7:30am 2/19/01 cmc

Col 9 0.01 M CaCl2 soln ID # 01001-03-15

Balance ID 914

T/D/I 9:30am 2/19/01 cmc

Col 10 Incubator ID I-12

Equil Start T/D/I 11:00am 2/19/01 cmc

Equil Stop T/D/I 11:00am 2/21/01 cmc

Col 11 Centrifuge

T/D/I 11:30am 2/21/01 cmc

(1)(2C) 22.3336g cmc 2/19/01

Col 13 T/D/I 12:35pm 2/21/01 cmc

Col 14 Internal Standard ID # 01001-02-01

Internal Std. Conc. 20ppm TH-PFOS

T/D/I 10:50am 2/22/01 cmc

Col 15 Spike soln ID # 00003-147

Spike Sol. Conc. 10ppm PFOS

T/D/I 10:15am 2/22/01 cmc

Col 17 T/D/I 10:30am 2/23/01 cmc

Col 18 MeOH ID # INA-4451

T/D/I 10:50am 2/23/01 cmc

(3)(NC) S2 Samples Diluted 1:1 on "Buckwheat" w/MeOH INA-4755 2/22/01 cmc

(3)(NC) 2/22/01 cmc

Col 19 Centrifuge & Transfer

T/D/I 11:00am 2/23/01 cmc

Col 20 MeOH ID # INA-4451

T/D/I 11:05am 2/23/01 cmc

Col 21 Centrifuge & Transfer

T/D/I 11:15am 2/23/01 cmc

Col 22 MeOH ID # INA-4451

T/D/I 11:18am 2/23/01 cmc

(4) S3 Samples Diluted 1:1 on "Buckwheat" w/MeOH INA-4755 2/23/01 cmc

(5) S2 samples Diluted 1:10, IS Added, MS Added 3/30/01 cmc

(6) S2 samples Diluted 1:100, IS Added, MS Added 3/30/01 cmc

Col 23 Centrifuge & Transfer

T/D/I 11:30am 2/23/01 cmc

Col 24 Aliquot Study Sample

T/D/I 11:45am 2/23/01 cmc

Col 25 Spike soln ID # 00003-147

Spike Sol. Conc. 10ppm PFOS

T/D/I 2:00pm 2/23/01 cmc

Col 26 Internal Standard ID # 01001-02-01

Internal Std. Conc. 2ppm TH-PFOS

T/D/I 2:00pm 2/23/01 cmc

(7) S3 Samples Diluted 1:100, IS Added, MS Added 3/30/01 cmc

GLP Study Number: E00-1311

3M Environmental Laboratory

Desorption Isotherms, Multiple Concentrations | ETS-8-160 | Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc. Test Substance, ng/g	Time Point, hours	Soil:Solution Ratio	Centrifuge, if necessary	Add fresh CaCl2 (aqueous) & Weigh tube + contents	Equilibrate for 48 hours	Centrifuge	Sampling (Study Sample)	Internal Standard Addition, uL	Spike Amount	Sampling	Centrifuge & Remove Aqueous	Add 4.0mL methanol	Centrifuge & Transfer to a second tube	Add 4.0mL methanol	Centrifuge & Transfer	Add 4.0mL methanol	Centrifuge & Transfer	Sampling (Study Sample)	Spike Amount	Internal Standard Addition, uL	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24(3)	25(3)	26(5)	27(6)
E00-1311-5127	---	Sample	Soil 3	0	48	1:5		22.1443 g			S2			---	S3									---		
E00-1311-5128	---	Sample	Soil 3	0	48	1:5		22.0779 g			S2			---	S3									---		(9)
E00-1311-5129	---	Sample	Soil 3	0	48	1:5		22.0446 g			S2			---	S3									---		
E00-1311-5129	MS	Sample	Soil 3	0	48	1:5		---			S2			20uL	S3									20uL		
[illegible]								21.9988 g						---										---		
E00-1311-5131	---	Sample	Soil 3	0.5	48	1:5		21.9482 g			S2			---	S3									---		(1)
E00-1311-5132	---	Sample	Soil 3	0.5	48	1:5		21.9328 g			S2			---	S3									---		
E00-1311-5132	MS	Sample	Soil 3	0.5	48	1:5		---			S2			20uL	S3									20uL		
E00-1311-5133	---	Sample	Soil 3	2.0	48	1:5		22.1215 g	2/21/01	2/21/01	S2	2/21/01	2/22/01	---	S3	2/24/01	2/26/01	2/26/01	2/26/01	2/26/01	2/26/01	2/26/01	2/26/01	---	2/26/01	
E00-1311-5134	---	Sample	Soil 3	2.0	48	1:5		21.9110 g	cmc	cmc	S2	cmc	cmc	---	S3	cmc	cmc	cmc	cmc	cmc	cmc	cmc	cmc	---	cmc	
E00-1311-5135	---	Sample	Soil 3	2.0	48	1:5		22.1391 g			S2			---	S3									---		
E00-1311-5135	MS	Sample	Soil 3	2.0	48	1:5		---			S2			20uL	S3									20uL		
[illegible]	---	Sample	Soil 3	5.0	48	1:5	2/19/01 cmc	22.1629 g			[illegible]			---	S3									---	10.5uL 2/24/01 cmc	
E00-1311-5137	---	Sample	Soil 3	5.0	48	1:5		22.0397 g			S2			---	S3									---		(6)
E00-1311-5138	---	Sample	Soil 3	5.0	48	1:5		22.0226 g			S2			---	S3									---		
E00-1311-5138	MS	Sample	Soil 3	5.0	48	1:5		---			S2			20uL	S3									20uL		
E00-1311-5139	---	Sample	Soil 3	10	48	1:5		22.1150 g			S2			---	S3									---		
[illegible]	---	Sample	Soil 3	10	48	1:5		22.0155 g			S2			---	S3									---		(5)
E00-1311-5141	---	Sample	Soil 3	10	48	1:5		22.0134 g			S2			---	S3									---		(7)
E00-1311-5141	MS	Sample	Soil 3	10	48	1:5		---			S2			20uL	S3									20uL		
E00-1311-5142	---	Sample	Soil 3	50	48	1:5		22.1761 g			S2			---	S3									---		
E00-1311-5143	---	Sample	Soil 3	50	48	1:5		22.1837 g			S2			---	S3									---		
E00-1311-5144	---	Sample	Soil 3	50	48	1:5		22.1524 g			S2			---	S3									---		
E00-1311-5144	MS	Sample	Soil 3	50	48	1:5		---			S2			20uL	S3									20uL		

Col 8 T/D/I 8:00am 2/19/01 cmc

Col 9 0.01 M CaCl2 soln ID # 01001-03-15

Balance ID 914

T/D/I 10:00am 2/19/01 cmc

Col 10 Incubator ID I-12

Equil Start T/D/I 11:00am 2/19/01 cmc

Equil Stop T/D/I 11:00am 2/21/01 cmc

Col 11 Centrifuge

T/D/I 11:30am 2/21/01 cmc

Col 13 T/D/I 12:35 2/21/01 cmc

Col 14 Internal Standard ID # 01001-02-01

Internal Std. Conc. 20ppm TH-PFOS

T/D/I 10:50am 2/22/01 cmc

Col 15 Spike soln ID # 00003-147

Spike Sol. Conc. 10ppm PFOS

T/D/I 10:15am 2/22/01 cmc

Col 17 T/D/I 7:00am 2/26/01 cmc

Col 18 MeOH ID # TNA-4451

T/D/I 7:35am 2/26/01 cmc

Col 19 Centrifuge & Transfer

T/D/I 7:50am 2/26/01 cmc

Col 20 MeOH ID # TNA-4451

T/D/I 8:00am 2/26/01 cmc

Col 21 Centrifuge & Transfer

T/D/I 8:10am 2/26/01 cmc

Col 22 MeOH ID # TNA-4451

T/D/I 5:18pm 2/26/01 cmc

Col 23 Centrifuge & Transfer

T/D/I 8:30am 2/26/01 cmc

Col 24 Aliquot Study Sample

T/D/I 9:00am 2/26/01 cmc

Col 25 Spike soln ID # 00003-147

Spike Sol. Conc. 10ppm PFOS

T/D/I 2:00pm 2/26/01 cmc

Col 26 Internal Standard ID # 01001-02-01

Internal Std. Conc. 20ppm TH-PFOS

T/D/I 2:00pm 2/26/01 cmc

(1) Tube cracked and was discarded 2/21/01 cmc

(2) -S2 Samples Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/22/01 cmc

(3)(5) 2/22/01 cmc

(4) S3 Samples Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/26/01 cmc

(5) S2 Samples Diluted 1:10, IS Added, MS Added 3/30/01 cmc

(6) S3 Samples Diluted 1:10, IS Added, MS Added 3/30/01 cmc

(7) -S3 Samples Diluted 1:1000, IS Added, MS Added 3/30/01 cmc

(8) Samples stored under refrigeration in R 2 until dilution and/or analysis cmc 4-24-01

(9) Sample tubes stored at room temp until extraction step cmc 4-24-01

GLP Study Number: E00-1311

3M Environmental Laboratory

Desorption Isotherms, Multiple Concentrations ETS-8-160 Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, mg/L	Time Point, hours	Soil:Solution Ratio	Centrifuge, if necessary	Add fresh CaCl2 (aqueous) & Weigh tube + contents	Equilibrate for 48 hours	Centrifuge	Sampling	1.8 mL of Study Sample (1) (8)	Internal Standard Addition, mL (1)	Spike Amount	Sampling	Centrifuge & Remove (aqueous)	Add 4.0mL methanol	Centrifuge & Transfer to 1 second tube	Add 4.0mL methanol	Centrifuge & Transfer	Add 4.0mL methanol	Centrifuge & Transfer	1.8 mL of Study Sample (1)	Spike Amount	Internal Standard Addition, mL	Comments (1) (2)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
E00-1311-5163	---	Sample	Sed 1	0	48	1:5		21.9363 g			S2				S3											
E00-1311-5164	---	Sample	Sed 1	0	48	1:5		21.9751 g			S2				S3											
E00-1311-5165	---	Sample	Sed 1	0	48	1:5		21.9556 g			S2				S3											
E00-1311-5165	MS	Sample	Sed 1	0	48	1:5					S2			20µL	S3									20µL		
[illegible]		[illegible]	Sed 1	0.5	48	1:5		21.9692 g			S2				S3											
E00-1311-5167	---	Sample	Sed 1	0.5	48	1:5		21.8878 g			S2				S3											
E00-1311-5168	---	Sample	Sed 1	0.5	48	1:5		22.0366 g			S2				S3											
E00-1311-5168	MS	Sample	Sed 1	0.5	48	1:5					S2			20µL	S3									20µL		
E00-1311-5169	---	Sample	Sed 1	2.0	48	1:5		22.0147 g			S2				S3											
E00-1311-5170	---	Sample	Sed 1	2.0	48	1:5		22.0451 g			S2				S3											
E00-1311-5171	---	Sample	Sed 1	2.0	48	1:5		22.0362 g			S2				S3											
E00-1311-5171	MS	Sample	Sed 1	2.0	48	1:5					S2			20µL	S3									20µL		
[illegible]	---	[illegible]	Sed 1	5.0	48	1:5		22.0587 g			S2				S3											
E00-1311-5173	---	Sample	Sed 1	5.0	48	1:5		22.2054 g			S2				S3											
E00-1311-5174	---	Sample	Sed 1	5.0	48	1:5		22.0342 g			S2				S3											
E00-1311-5174	MS	Sample	Sed 1	5.0	48	1:5					S2			20µL	S3									20µL		
E00-1311-5175	---	Sample	Sed 1	10	48	1:5		22.0503 g			S2				S3											
E00-1311-5176	---	Sample	Sed 1	10	48	1:5		21.8762 g			S2				S3											
E00-1311-5177	---	Sample	Sed 1	10	48	1:5		21.9749 g			S2				S3											
E00-1311-5177	MS	Sample	Sed 1	10	48	1:5					S2			20µL	S3									20µL		
E00-1311-5178	---	Sample	Sed 1	50	48	1:5		22.1004 g			S2				S3											
E00-1311-5179	---	Sample	Sed 1	50	48	1:5		22.0650 g			S2				S3											
E00-1311-5180	---	Sample	Sed 1	50	48	1:5		22.1039 g			S2				S3											
E00-1311-5180	MS	Sample	Sed 1	50	48	1:5					S2			20µL	S3									20µL		

Centrifuge, if necessary: cmc 2/19/01

Equilibrate for 48 hours: cmc 2/21/01

Centrifuge: cmc 2/22/01

Sampling: S2 2/21/01

1.8 mL of Study Sample (1) (8): cmc

Internal Standard Addition, mL (1): cmc 2/22/01

Spike Amount: S2 20µL; S3 20µL

Sampling: S3 2/22/01

Centrifuge & Remove (aqueous): cmc 2/26/01

Add 4.0mL methanol: cmc 2/26/01

Centrifuge & Transfer to 1 second tube: cmc 2/26/01

Add 4.0mL methanol: cmc 2/26/01

Centrifuge & Transfer: cmc 2/26/01

Add 4.0mL methanol: cmc 2/26/01

Centrifuge & Transfer: cmc 2/26/01

1.8 mL of Study Sample (1): cmc 2/26/01

Spike Amount: S2 20µL; S3 20µL

Internal Standard Addition, mL: 12.5µL cmc 2/26/01

Comments (1) (2): cmc 2/26/01

(7) Samples stored under refrigeration until dilution and/or analysis. (AC) cmc 4-24-01

(8) Sample tubes stored at room temp until extraction step. (AC) 4-24-01

Col 8 T/D/I 8:00am 2/19/01 cmc

Col 9 0.01 M CaCl2 soln ID # 01001-03-15

Balance ID 914

T/D/I 10:20am 2/19/01 cmc

Col 10 Incubator ID I-12

Equil Start T/D/I 11:00am 2/19/01 cmc

Equil Stop T/D/I 11:00am 2/21/01 cmc

Col 11 Centrifuge

T/D/I 12:20pm 2/21/01 cmc

① 32 Samples Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/22/01 cmc

Col 13 T/D/I 1:10pm 2/21/01 cmc

Col 14 Internal Standard ID # 01001-02-01

Internal Std. Conc. 20ppm THPFOS

T/D/I 10:50am 2/22/01 cmc

Col 15 Spike soln ID # 00003-147

Spike Sol. Conc. 10ppm PFOS

T/D/I 10:15am 2/22/01 cmc

Col 17 T/D/I 1:00pm 2/26/01 cmc

Col 18 MeOH ID # TNA-4755

T/D/I 8:50am 2/26/01 cmc

② NS 2/22/01 cmc

③ -S3 Samples Diluted 1:1 on Buckwheat w/MeOH TNA-4755 2/26/01 cmc

④ -S2 Samples Diluted 1:10, IS Added, MS Added 3/30/01 cmc

⑤ -S2 samples Diluted 1:100 IS Added, MS Added 3/30/01 cmc

Col 19 Centrifuge & Transfer

T/D/I 9:45am 2/26/01 cmc

Col 20 MeOH ID # TNA-4755

T/D/I 9:50am 2/26/01 cmc

Col 21 Centrifuge & Transfer

T/D/I 10:03am 2/26/01 cmc

Col 22 MeOH ID # TNA-4755

T/D/I 10:05am 2/26/01 cmc

Col 23 Centrifuge & Transfer

T/D/I 10:20am 2/26/01 cmc

Col 24 Aliquot Study Sample

T/D/I 10:30am 2/26/01 cmc

Col 25 Spike soln ID # 00003-147

Spike Sol. Conc. 10ppm PFOS

T/D/I 2:00pm 2/26/01 cmc

Col 26 Internal Standard ID # 01001-02-01

Internal Std. Conc. 20ppm THPFOS

T/D/I 2:00pm 2/26/01 cmc

⑥ -S3 Samples Diluted 1:1000, IS Added, NS Added cmc 3/30/01

GLP Study Number: E00-1311

3M Environmental Laboratory

Desorption Isotherms, Multiple Concentrations ETS-8-160 Test Substance: PFOS

Sample ID	MS	Type of Sample	Type of Soil	Conc., Test Substance, ng/L	Time Point, hours	Soil-Solution Ratio	Centrifuge, if necessary	Add fresh CaCl2 aqueous & Weigh tube + contents	Equilibrate for 48 hours	Centrifuge	Sampling	1.8 mL of Study Sample (5) (6)	Internal Standard Addition, uL (7)	Spike Amount	Sampling	Centrifuge & Remove aqueous	Add 4.0mL methanol	Centrifuge & Transfer to a second tube	Add 4.0mL methanol	Centrifuge & Transfer	Add 4.0mL methanol	Centrifuge & Transfer	1.8 mL of Study Sample (5)	Spike Amount	Internal Standard Addition, uL	Comments (8)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24 (2)	25 (2)	26 (2)	27 (2)
E00-1311-5199	---	Sample	Slg 1	0	48	1:5		21.1349g			S2			---	S3									---		
E00-1311-5200	---	Sample	Slg 1	0	48	1:5		21.2310g			S2			---	S3									---		
E00-1311-5201	---	Sample	Slg 1	0	48	1:5		19.4552g			S2			---	S3									---		
E00-1311-5201	MS	Sample	Slg 1	0	48	1:5					S2			20µL	S3									20µL		
E00-1311-5202	---	Sample	Slg 1	0.5	48	1:5		21.1389g			S2			---	S3									---		
E00-1311-5203	---	Sample	Slg 1	0.5	48	1:5		21.9674g			S2			---	S3									---		
E00-1311-5204	---	Sample	Slg 1	0.5	48	1:5		21.8555g			S2			---	S3									---		
E00-1311-5204	MS	Sample	Slg 1	0.5	48	1:5					S2			20µL	S3									20µL		
E00-1311-5205	---	Sample	Slg 1	2.0	48	1:5		21.8007g			S2			---	S3									---		
E00-1311-5206	---	Sample	Slg 1	2.0	48	1:5		21.8224g			S2			---	S3									---		
E00-1311-5207	---	Sample	Slg 1	2.0	48	1:5		21.8548g			S2			---	S3									---		
E00-1311-5207	MS	Sample	Slg 1	2.0	48	1:5					S2			20µL	S3									20µL		
E00-1311-5208	---	Sample	Slg 1	5.0	48	1:5		20.6795g			S2			---	S3									---		
E00-1311-5209	---	Sample	Slg 1	5.0	48	1:5		20.3736g			S2			---	S3									---		
E00-1311-5210	---	Sample	Slg 1	5.0	48	1:5		21.1151g			S2			---	S3									---		
E00-1311-5210	MS	Sample	Slg 1	5.0	48	1:5					S2			20µL	S3									20µL		
E00-1311-5211	---	Sample	Slg 1	10	48	1:5		21.5764g			S2			---	S3									---		
E00-1311-5212	---	Sample	Slg 1	10	48	1:5		20.5274g			S2			---	S3									---		
E00-1311-5213	---	Sample	Slg 1	10	48	1:5		20.3968g			S2			---	S3									---		
E00-1311-5213	MS	Sample	Slg 1	10	48	1:5					S2			20µL	S3									20µL		
E00-1311-5213	---	Sample	Slg 1	50	48	1:5		20.7576g			S2			---	S3									---		
E00-1311-5214	---	Sample	Slg 1	50	48	1:5		21.3628g			S2			---	S3									---		
E00-1311-5215	---	Sample	Slg 1	50	48	1:5		20.8419g			S2			---	S3									---		
E00-1311-5215	MS	Sample	Slg 1	50	48	1:5					S2			20µL	S3									20µL		

2/19/01 cmc

Col 8 T/D/I 9:00am 2/19/01 cmc

Col 9 0.01 M CaCl2 soln ID # 0001-03-15

Balance ID 914

T/D/I 10:50am 2/19/01 cmc

Col 10 Incubator ID I-12

Equil Start T/D/I 11:00am 2/19/01 cmc

Equil Stop T/D/I 11:00am 2/21/01 cmc

Col 11 Centrifuge

T/D/I 12:20pm 2/21/01 cmc

① S2 Samples Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/22/01 cmc

GLP Study Number: E00-1311

Col 13 T/D/I 1:10pm 2/21/01 cmc

Col 14 Internal Standard ID # 2001-02-01

Internal Std. Conc. 20ppm THPFOS

T/D/I 10:50am 2/22/01 cmc

Col 15 Spike soln ID # 00003-147

Spike Sol. Conc. 10ppm PFOS

T/D/I 10:15am 2/22/01 cmc

Col 17 T/D/I 7:00am 2/26/01 cmc

Col 18 MeOH ID # TNA-4755

T/D/I 10:40am 2/26/01 cmc

② (NE) 2/22/01 cmc

③ -S3 Samples Diluted 1:1 on "Buckwheat" w/MeOH TNA-4755 2/26/01 cmc

④ -S3 Samples Diluted 1:100, FS Added, MS Added, cmc 3/30/01

Col 19 Centrifuge & Transfer

T/D/I 10:50am 2/26/01 cmc

Col 20 MeOH ID # TNA-4755

T/D/I 11:00am 2/26/01 cmc

Col 21 Centrifuge & Transfer

T/D/I 11:15am 2/26/01 cmc

Col 22 MeOH ID # TNA-4755

T/D/I 11:20am 2/26/01 cmc

Col 23 Centrifuge & Transfer

T/D/I 11:40am 2/26/01 cmc

Col 24 Aliquot Study Sample

T/D/I 11:50am 2/26/01 cmc

Col 25 Spike soln ID # 00003-147

Spike Sol. Conc. 10ppm PFOS

T/D/I 2:00pm 2/26/01 cmc

Col 26 Internal Standard ID # 2001-02-01

Internal Std. Conc. 20ppm THPFOS

T/D/I 2:00pm 2/26/01 cmc

⑤ Samples stored under refrigeration 2-8 until dilution and/or analysis ⑥ cmc 4-24-01

⑦ Sample tubes stored at room temp until extraction step ⑧ cmc 4-24-01

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3M Environmental Laboratory

Appendix D: Individual Sample Data

This appendix includes processed individual sample data from the present study.

Tier I:

"Suitable Analytical Work"

"Suitable Container"

"Optimal Soil: Solution Ratios"

"Adsorption Kinetics, One Concentration"

"Mass Balance Calculations"

"Suitable Desorb Solvent"

Tier II:

"Tier II: "Adsorption Kinetics, One Concentration"

Tier III:

"Tier III: "Desorption Kinetics, One Concentration"

"Tier III: "Adsorption/Desorption Isotherms"

"Tier III "Mass Balance Calculations"

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Tier I "Suitable Analytical Work"

Sample File Name	Sample Description	Original Matrix Solution	Theoretical Test Substance Concentration, ug/L	Dilution Factor	Measured Concentration, ug/L (from instrument)	Observed Solution Concentration, ug/L (measured x dilution factor)	Recovery, %	Average Recovery, %	% RSD of Recoveries (Averged over entire soil type)
t010125_040	10x E00-1311-0016	E00-1311-0001	0	10	<40.0	<400	N/A		
t010125_041	10x E00-1311-0017	E00-1311-0002	0	10	<40.0	<400	N/A		
t010125_042	10x E00-1311-0018	E00-1311-0003	0	10	<40.0	<400	N/A		
t010125_043	10x E00-1311-0019	E00-1311-0004	0	10	<40.0	<400	N/A		
t010125_044	10x E00-1311-0020	E00-1311-0005	0	10	<40.0	<400	N/A		
t010125_048	10x E00-1311-0021	E00-1311-0006	0	10	<40.0	<400	N/A		
t010125_049	10x E00-1311-0022	E00-1311-0007	0	10	<40.0	<400	N/A	Control Blanks	
t010125_050	10x E00-1311-0023	E00-1311-0008	0	10	<40.0	<400	N/A		
t010125_051	10x E00-1311-0024	E00-1311-0009	0	10	<40.0	<400	N/A		
t010125_052	10x E00-1311-0025	E00-1311-0010	0	10	<40.0	<400	N/A		
t010125_056	10x E00-1311-0026	E00-1311-0011	0	10	<40.0	<400	N/A		
t010125_057	10x E00-1311-0027	E00-1311-0012	0	10	<40.0	<400	N/A		
t010125_058	10x E00-1311-0028	E00-1311-0013	0	10	<40.0	<400	N/A		
t010125_059	10x E00-1311-0029	E00-1311-0014	0	10	<40.0	<400	N/A		
t010125_060	10x E00-1311-0030	E00-1311-0015	0	10	<40.0	<400	N/A		
t010125_064	10x E00-1311-0031	E00-1311-0001	5000	10	615.66	6156.6	123.1		
t010125_065	10x E00-1311-0032	E00-1311-0001	5000	10	534.11	5341.1	106.8		
t010125_066	10x E00-1311-0033	E00-1311-0001	5000	10	623.15	6231.5	124.6		
t010125_067	10x E00-1311-0034	E00-1311-0002	5000	10	511.02	5110.2	102.2		
t010125_068	10x E00-1311-0035	E00-1311-0002	5000	10	599.06	5990.6	119.8	115.2 Barnes Loam-Sandy Loam	
t010125_072	10x E00-1311-0036	E00-1311-0002	5000	10	539.37	5393.7	107.9		
t010125_073	10x E00-1311-0037	E00-1311-0003	5000	10	602.7	6027.0	120.5		7.51
t010125_074	10x E00-1311-0038	E00-1311-0003	5000	10	543.28	5432.8	108.7		
t010125_075	10x E00-1311-0039	E00-1311-0003	5000	10	615.46	6154.6	123.1		
t010125_076	10x E00-1311-0040	E00-1311-0004	5000	10	566.96	5669.6	113.4		
t010125_080	10x E00-1311-0041	E00-1311-0004	5000	10	561.3	5613.0	112.3		
t010125_081	10x E00-1311-0042	E00-1311-0004	5000	10	582.06	5820.6	116.4		
t010125_082	10x E00-1311-0043	E00-1311-0005	5000	10	560.81	5608.1	112.2		
t010125_083	10x E00-1311-0044	E00-1311-0005	5000	10	629.91	6299.1	126.0	115.2 Clay Loam (Carl Broeren)	
t010125_084	10x E00-1311-0045	E00-1311-0005	5000	10	548.47	5484.7	109.7		
t010125_088	10x E00-1311-0046	E00-1311-0006	5000	10	570.84	5708.4	114.2		4.92
t010125_089	10x E00-1311-0047	E00-1311-0006	5000	10	614.54	6145.4	122.9		
t010125_090	10x E00-1311-0048	E00-1311-0006	5000	10	549.94	5499.4	110.0		

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Sample File Name	Sample Description	Original Matrix Solution	Theoretical Test Substance Concentration, ug/L	Dilution Factor	Measured Concentration, ug/L (from Instrument)	Observed Solution Concentration, ug/L (measured x dilution factor)	Recovery, %	Average Recovery, %	% RSD of Recoveries (Averged over entire soil type)
t010125_091	10x E00-1311-0049	E00-1311-0007	5000	10	635.77	6357.7	127.2		
t010125_092	10x E00-1311-0050	E00-1311-0007	5000	10	539.81	5398.1	108.0		
t010125_096	10x E00-1311-0051	E00-1311-0007	5000	10	402.35	4023.5	80.5		
t010125_097	10x E00-1311-0052	E00-1311-0008	5000	10	417.47	4174.7	83.5		
t010125_098	10x E00-1311-0053	E00-1311-0008	5000	10	359.31	3593.1	71.9	99.8 Clay	
t010125_099	10x E00-1311-0054	E00-1311-0008	5000	10	380.97	3809.7	76.2		
t010125_100	10x E00-1311-0055	E00-1311-0009	5000	10	609.1	6091.0	121.8		21.81
t010125_104	10x E00-1311-0056	E00-1311-0009	5000	10	603.9	6039.0	120.8		
t010125_105	10x E00-1311-0057	E00-1311-0009	5000	10	540.32	5403.2	108.1		
t010125_106	10x E00-1311-0058	E00-1311-0010	5000	10	680.88	6808.8	136.2		
t010125_107	10x E00-1311-0059	E00-1311-0010	5000	10	543.97	5439.7	108.8		
t010125_108	10x E00-1311-0060	E00-1311-0010	5000	10	617.2	6172.0	123.4		
t010125_112	10x E00-1311-0061	E00-1311-0011	5000	10	549.02	5490.2	109.8		
t010125_113	10x E00-1311-0062	E00-1311-0011	5000	10	605.04	6050.4	121.0	116.0 Sediment	
t010125_114	10x E00-1311-0063	E00-1311-0011	5000	10	529.29	5292.9	105.9		
t010125_115	10x E00-1311-0064	E00-1311-0012	5000	10	613.74	6137.4	122.7		8.88
t010125_118	10x E00-1311-0065	E00-1311-0012	5000	10	535.27	5352.7	107.1		
t010125_120	10x E00-1311-0066	E00-1311-0012	5000	10	547.43	5474.3	109.5		
t010125_121	10x E00-1311-0067	E00-1311-0013	5000	10	326.1	3261.0	65.2		
t010125_122	10x E00-1311-0068	E00-1311-0013	5000	10	457.52	4575.2	91.5		
t010125_123	10x E00-1311-0069	E00-1311-0013	5000	10	586.47	5864.7	117.3		
t010125_124	10x E00-1311-0070	E00-1311-0014	5000	10	412.39	4123.9	82.5		
t010125_128	10x E00-1311-0071	E00-1311-0014	5000	10	473.07	4730.7	94.6	88.3 Sludge	
t010125_129	10x E00-1311-0072	E00-1311-0014	5000	10	399.6	3996.0	79.9		
t010125_130	10x E00-1311-0073	E00-1311-0015	5000	10	428.08	4280.8	85.6		15.97
t010125_131	10x E00-1311-0074	E00-1311-0015	5000	10	471.39	4713.9	94.3		
t010125_132	10x E00-1311-0075	E00-1311-0015	5000	10	418.75	4187.5	83.8		

Tier I "Suitable Container"

Sample Data File	Sample Description	Centrifute Tube Type	Theoretical Test Substance Concentration, ug/L	Dilution Factor	Measured Concentration, ug/L (from Instrument)	Observed Solution Concentration, ug/L (measured x dilution factor)	Recovery, %	Average Recovery, %	Average Concentration of extractions, ug/L
s00120_035	E00-1311-1001 0hr	none	0	2	<24.75	<49.5			
s00120_036	E00-1311-1002 0hr	none	0	2	<24.75	<49.5			
s00120_037	E00-1311-1003 0hr	none	0	2	<24.75	<49.5			
s00120_038	E00-1311-1004 0hr	none	100	2	<24.75	<49.5	<49.5%		
s00120_039	E00-1311-1005 0hr	none	100	2	<24.75	<49.5	<49.5%		
s00120_043	E00-1311-1006 0hr	none	100	2	<24.75	<49.5	<49.5%		
s00120_044	E00-1311-1007 0hr	none	1000	2	486.97	973.94	97.394		
s00120_045	E00-1311-1008 0hr	none	1000	2	523.02	1046.04	104.604		
s00120_046	E00-1311-1009 0hr	none	1000	2	544.09	1088.18	108.818		
s00120_047	E00-1311-1010 24 hour, 0mg/L, S1, C-1	Polypropylene	0	2	25.86	** Point thrown out			
s00120_051	E00-1311-1011 24 hour, 0mg/L, S1, C-1	Polypropylene	0	2	<24.75	<49.5			
s00120_052	E00-1311-1012 24 hour, 0mg/L, S1, C-1	Polypropylene	0	2	<24.75	<49.5			
s00120_054	E00-1311-1013 24 hour, 0.10mg/L, S1, C-1	Polypropylene	100	2	<24.75	<49.5	<49.5%		
s00120_055	E00-1311-1014 24 hour, 0.10mg/L, S1, C-1	Polypropylene	100	2	<24.75	<49.5	<49.5%		
s00120_059	E00-1311-1015 24 hour, 0.10mg/L, S1, C-1	Polypropylene	100	2	<24.75	<49.5	<49.5%		
s00120_061	E00-1311-1016 24 hour, 1.0mg/L, S1, C-1	Polypropylene	1000	2	462.08	924.16	92.416		
s00120_062	E00-1311-1017 24 hour, 1.0mg/L, S1, C-1	Polypropylene	1000	2	475.12	950.24	95.024	96.19	
s00120_063	E00-1311-1018 24 hour, 1.0mg/L, S1, C-1	Polypropylene	1000	2	505.67	1011.34	101.134		
s00120_068	E00-1311-1010 24 hour, 0mg/L, S2, C-1	Polypropylene	N/A	2	<24.75	<49.5	N/A		
s00120_069	E00-1311-1011 24 hour, 0mg/L, S2, C-1	Polypropylene	N/A	2	<24.75	<49.5	N/A		
s00120_070	E00-1311-1012 24 hour, 0mg/L, S2, C-1	Polypropylene	N/A	2	<24.75	<49.5	N/A		
s00120_075	E00-1311-1013 24 hour, 0.10mg/L, S2, C-1	Polypropylene	N/A	2	<24.75	<49.5	N/A		
s00120_076	E00-1311-1014 24 hour, 0.10mg/L, S2, C-1	Polypropylene	N/A	2	<24.75	<49.5	N/A		
s00120_077	E00-1311-1015 24 hour, 0.10mg/L, S2, C-1	Polypropylene	N/A	2	<24.75	<49.5	N/A		
s00120_079	E00-1311-1016 24 hour, 1.0mg/L, S2, C-1	Polypropylene	N/A	2	110.87	221.74	N/A		
s00120_083	E00-1311-1017 24 hour, 1.0mg/L, S2, C-1	Polypropylene	N/A	2	118.37	236.74	N/A		244.36
s00120_084	E00-1311-1018 24 hour, 1.0mg/L, S2, C-1	Polypropylene	N/A	2	137.3	274.6	N/A		
s00120_103	E00-1311-1019 24 hour, 0mg/L, S1, C-2	Polystyrene	0	2	<24.75	<49.5			
s00120_104	E00-1311-1020 24 hour, 0mg/L, S1, C-2	Polystyrene	0	2	<24.75	<49.5			
s00120_105	E00-1311-1021 24 hour, 0mg/L, S1, C-2	Polystyrene	0	2	<24.75	<49.5			
s00120_110	E00-1311-1022 24 hour, 0.10mg/L, S1, C-2	Polystyrene	100	2	<24.75	<49.5	<49.5%		
s00120_111	E00-1311-1023 24 hour, 0.10mg/L, S1, C-2	Polystyrene	100	2	<24.75	<49.5	<49.5%		
s00120_112	E00-1311-1024 24 hour, 0.10mg/L, S1, C-2	Polystyrene	100	2	<24.75	<49.5	<49.5%		
s00120_114	E00-1311-1025 24 hour, 1.0mg/L, S1, C-2	Polystyrene	1000	2	457.51	915.02	91.502		
s00120_118	E00-1311-1026 24 hour, 1.0mg/L, S1, C-2	Polystyrene	1000	2	475.62	951.24	95.124	94.51	
s00120_119	E00-1311-1027 24 hour, 1.0mg/L, S1, C-2	Polystyrene	1000	2	484.59	969.18	96.918		
s00122a_035	E00-1311-1019 24 hour, 0mg/L, S2, C-2	Polystyrene	N/A	2	<24.75	<49.5	N/A		
s00122a_036	E00-1311-1020 24 hour, 0mg/L, S2, C-2	Polystyrene	N/A	2	<24.75	<49.5	N/A		
s00122a_037	E00-1311-1021 24 hour, 0mg/L, S2, C-2	Polystyrene	N/A	2	<24.75	<49.5	N/A		
s00122a_042	E00-1311-1022 24 hour, 0.10mg/L, S2, C-2	Polystyrene	N/A	2	<24.75	<49.5	N/A		
s00122a_043	E00-1311-1023 24 hour, 0.10mg/L, S2, C-2	Polystyrene	N/A	2	<24.75	<49.5	N/A		
s00122a_044	E00-1311-1024 24 hour, 0.10mg/L, S2, C-2	Polystyrene	N/A	2	<24.75	<49.5	N/A		
s00122a_046	E00-1311-1025 24 hour, 1.0mg/L, S2, C-2	Polystyrene	N/A	2	71.39	142.78	N/A		
s00122a_050	E00-1311-1026 24 hour, 1.0mg/L, S2, C-2	Polystyrene	N/A	2	99.23	198.46	N/A		172.43
s00122a_051	E00-1311-1027 24 hour, 1.0mg/L, S2, C-2	Polystyrene	N/A	2	88.02	176.04	N/A		

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Sample Data File	Sample Description	Centrifuge Tube Type	Theoretical Test Substance Concentration, ug/L	Dilution Factor	Measured Concentration, ug/L (from Instrument)	Observed Solution Concentration, ug/L (measured x dilution factor)	Recovery, %	Average Recovery, %	Average Concentration of extractions, ug/L
s00120_121	E00-1311-1028 24 hour, 0mg/L, S1, C-3	glass	0	2	29.19	58.38			
s00120_122	E00-1311-1029 24 hour, 0mg/L, S1, C-3	glass	0	2	<24.75	<49.5			
s00120_126	E00-1311-1030 24 hour, 0mg/L, S1, C-3	glass	0	2	<24.75	<49.5			
s00120_128	E00-1311-1031 24 hour, 0.10mg/L, S1, C-3	glass	100	2	<24.75	<49.5	<49.5%		
s00120_129	E00-1311-1032 24 hour, 0.10mg/L, S1, C-3	glass	100	2	<24.75	<49.5	<49.5%		
s00120_130	E00-1311-1033 24 hour, 0.10mg/L, S1, C-3	glass	100	2	<24.75	<49.5	<49.5%		
s00120_135	E00-1311-1034 24 hour, 1.0mg/L, S1, C-3	glass	1000	2	465.89	931.78	93.178		
s00120_136	E00-1311-1035 24 hour, 1.0mg/L, S1, C-3	glass	1000	2	490.88	981.76	98.176	96.74	
s00120_137	E00-1311-1036 24 hour, 1.0mg/L, S1, C-3	glass	1000	2	494.39	988.78	98.878		
s00122a_053	E00-1311-1028 24 hour, 0mg/L, S2, C-3	glass	N/A	2	<24.75	<49.5	N/A		
s00122a_054	E00-1311-1029 24 hour, 0mg/L, S2, C-3	glass	N/A	2	<24.75	<49.5	N/A		
s00122a_058	E00-1311-1030 24 hour, 0mg/L, S2, C-3	glass	N/A	2	<24.75	<49.5	N/A		
s00122a_060	E00-1311-1031 24 hour, 0.10mg/L, S2, C-3	glass	N/A	2	<24.75	<49.5	N/A		
s00122a_061	E00-1311-1032 24 hour, 0.10mg/L, S2, C-3	glass	N/A	2	<24.75	<49.5	N/A		
s00122a_062	E00-1311-1033 24 hour, 0.10mg/L, S2, C-3	glass	N/A	2	<24.75	<49.5	N/A		
s00122a_067	E00-1311-1034 24 hour, 1.0mg/L, S2, C-3	glass	N/A	2	261.99	523.98	N/A		
s00122a_068	E00-1311-1035 24 hour, 1.0mg/L, S2, C-3	glass	N/A	2	201.55	403.1	N/A		397.75
s00122a_069	E00-1311-1036 24 hour, 1.0mg/L, S2, C-3	glass	N/A	2	133.08	266.16	N/A		
s00120_142	E00-1311-1037 24 hour, 0mg/L, S1, C-4	Teflon	0	2	442.75	885.5			
s00120_143	E00-1311-1038 24 hour, 0mg/L, S1, C-4	Teflon	0	2	28.04	56.08			
s00120_144	E00-1311-1039 24 hour, 0mg/L, S1, C-4	Teflon	0	2	<24.75	<49.5			
s00120_146	E00-1311-1040 24 hour, 0.10mg/L, S1, C-4	Teflon	100	2	<24.75	<49.5	<49.5%		
s00120_150	E00-1311-1041 24 hour, 0.10mg/L, S1, C-4	Teflon	100	2	<24.75	<49.5	<49.5%		
s00120_151	E00-1311-1042 24 hour, 0.10mg/L, S1, C-4	Teflon	100	2	<24.75	<49.5	<49.5%		
s00120_153	E00-1311-1043 24 hour, 1.0mg/L, S1, C-4	Teflon	1000	2	417.87	835.74	83.574		
s00120_154	E00-1311-1044 24 hour, 1.0mg/L, S1, C-4	Teflon	1000	2	455.03	910.06	91.006	89.49	
s00120_158	E00-1311-1045 24 hour, 1.0mg/L, S1, C-4	Teflon	1000	2	469.4	938.8	93.88		
s00122a_074	E00-1311-1037 24 hour, 0mg/L, S2, C-4	Teflon	N/A	2	<24.75	<49.5	N/A		
s00122a_075	E00-1311-1038 24 hour, 0mg/L, S2, C-4	Teflon	N/A	2	<24.75	<49.5	N/A		
s00122a_076	E00-1311-1039 24 hour, 0mg/L, S2, C-4	Teflon	N/A	2	<24.75	<49.5	N/A		
s00122a_078	E00-1311-1040 24 hour, 0.10mg/L, S2, C-4	Teflon	N/A	2	<24.75	<49.5	N/A		
s00122a_082	E00-1311-1041 24 hour, 0.10mg/L, S2, C-4	Teflon	N/A	2	<24.75	<49.5	N/A		
s00122a_083	E00-1311-1042 24 hour, 0.10mg/L, S2, C-4	Teflon	N/A	2	<24.75	<49.5	N/A		
s00122a_085	E00-1311-1043 24 hour, 1.0mg/L, S2, C-4	Teflon	N/A	2	25.99	51.98	N/A		
s00122a_086	E00-1311-1044 24 hour, 1.0mg/L, S2, C-4	Teflon	N/A	2	84.89	169.78	N/A		94.37
s00122a_090	E00-1311-1045 24 hour, 1.0mg/L, S2, C-4	Teflon	N/A	2	30.68	61.36	N/A		

Note: In all of the 0.10mg/L test vessels the test substance was undetected. This is due to the nature of the relationship of the test substance to the test vessel, some amount of adsorption was expected. In this particular case the amount of test substance initially present in the test vessels was relatively small, and the analytical method was unable to detect the test substance in the samples. For the remainder of the study the amount of test substance administered to the test vessels was at least 5 times higher than the undetected 0.10mg/L level.

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Tier I "Optimal Soil:Solution Ratios"

Sample Data File	Sample Description	Soil Type	Soil:Solution Ratio	Time Point, Hours	Theoretical Test Substance Concentration, ug/L	Dilution Factor	Measured Concentration, ug/L (from Instrument)	Observed Solution Concentration, ug/L (measured x dilution factor)	Amount of Substance Adsorbed, %
s001207_036	10x E00-1311-3001-S1, 0.0mg/L, 0hr, No soil, 12/07/00	No soil	none	0	0.0	10	0	0.00	
s001207_037	10x E00-1311-3002-S1, 0.0mg/L, 0hr, No soil, 12/07/00	No soil	none	0	0.0	10	0	0.00	
s001207_038	10x E00-1311-3003-S1, 0.0mg/L, 0hr, No soil, 12/07/00	No soil	none	0	0.0	10	0	0.00	
s001207_040	10x E00-1311-3004-S1 5.0mg/L, 0hr, No soil, 12/07/00	No soil	none	0	5000.0	10	0	0.00	100.00
s001207_044	10x E00-1311-3005-S1, 5.0mg/L, 0hr, No soil, 12/07/00	No soil	none	0	5000.0	10	0	0.00	100.00
s001207_045	10x E00-1311-3006-S1, 5.0mg/L, 0hr, No soil, 12/07/00	No soil	none	0	5000.0	10		0.00	100.00
t001215_037	10x E00-1311-3007-S1, 0.0mg/L, 48hr, No Soil, 12/07/00	No soil	none	48	0.0	10	<25.0	<250	
t001215_038	10x E00-1311-3008-S1, 0.0mg/L, 48hr, No Soil, 12/07/00	No soil	none	48	0.0	10	<25.0	<250	
t001215_039	10x E00-1311-3009-S1, 0.0mg/L, 48hr, No Soil, 12/07/00	No soil	none	48	0.0	10	<25.0	<250	
t001215_041	10x E00-1311-3010-S1, 5.0mg/L, 48hr, No Soil, 12/07/00	No soil	none	48	5000.0	10	<25.0	<250	>95%
t001215_045	10x E00-1311-3011-S1, 5.0mg/L, 48hr, No Soil, 12/07/00	No soil	none	48	5000.0	10	<25.0	<250	>95%
t001215_046	10x E00-1311-3012-S1, 5.0mg/L, 48hr, No Soil, 12/07/00	No soil	none	48	5000.0	10	<25.0	<250	>95%
s001207_047	10x E00-1311-3013-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	Clay	1:1	0	0.0	10	<25.0	<250	
s001207_048	10x E00-1311-3014-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	Clay	1:1	0	0.0	10	<25.0	<250	
s001207_052	10x E00-1311-3015-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	Clay	1:1	0	0.0	10	<25.0	<250	
s001207_054	10x E00-1311-3016-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	Clay	1:5	0	0.0	10	<25.0	<250	
s001207_055	10x E00-1311-3017-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	Clay	1:5	0	0.0	10	<25.0	<250	
s001207_056	10x E00-1311-3018-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	Clay	1:5	0	0.0	10	<25.0	<250	
s001207_061	10x E00-1311-3019-S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	Clay	1:25	0	0.0	10	398.29	3982.90	
s001207_062	10x E00-1311-3020-S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	Clay	1:25	0	0.0	10	449.17	4491.70	
s001207_063	10x E00-1311-3021S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	Clay	1:25	0	0.0	10	<25.0	<250	
s001211_036	10x E00-1311-3022-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	Clay	1:1	48	0.0	10	<25.0	<250	
s001211_037	10x E00-1311-3023-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	Clay	1:1	48	0.0	10	<25.0	<250	
s001211_038	10x E00-1311-3024-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	Clay	1:1	48	0.0	10	<25.0	<250	
s001211_040	10x E00-1311-3025-S1 0.0mg/L, 48hr, 1:5 Clay, 12/07/00	Clay	1:5	48	0.0	10	<25.0	<250	
s001211_044	10x E00-1311-3026-S1 0.0mg/L, 48hr, 1:5 Clay, 12/07/00	Clay	1:5	48	0.0	10	<25.0	<250	
s001211_045	10x E00-1311-3027-S1 0.0mg/L, 48hr, 1:5 Clay, 12/07/00	Clay	1:5	48	0.0	10	<25.0	<250	
s001211_047	10x E00-1311-3028-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	Clay	1:25	48	0.0	10	<25.0	<250	
s001211_048	10x E00-1311-3029-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	Clay	1:25	48	0.0	10	<25.0	<250	
s001211_052	10x E00-1311-3030-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	Clay	1:25	48	0.0	10	<25.0	<250	
s001207_068	10x E00-1311-3031-S1,5.0mg/L, 0hr, 1:1clay, 12/07/00	Clay	1:1	0	5000.0	10	26.41	264.10	94.72
s001207_069	10x E00-1311-3032-S1,5.0mg/L, 0hr, 1:1clay, 12/07/00	Clay	1:1	0	5000.0	10	47.72	477.20	90.46
s001207_070	10x E00-1311-3033-S1,5.0mg/L, 0hr, 1:1clay, 12/07/00	Clay	1:1	0	5000.0	10	74.95	749.50	85.01
s001207_072	10x E00-1311-3034-S1,5.0mg/L,0hr, 1:5clay, 12/07/00	Clay	1:5	0	5000.0	10	366	3660.00	26.80
s001207_076	10x E00-1311-3035-S1,5.0mg/L,0hr, 1:5clay, 12/07/00	Clay	1:5	0	5000.0	10	389.48	3894.80	22.10
s001207_077	10x E00-1311-3036-S1,5.0mg/L,0hr, 1:5clay, 12/07/00	Clay	1:5	0	5000.0	10	390.3	3903.00	21.94
s001207_079	10x E00-1311-3037-S1,5.0mg/L,0hr, 1:25clay, 12/07/00	Clay	1:25	0	5000.0	10	427.38	4273.80	14.52
s001207_080	10x E00-1311-3038-S1,5.0mg/L,0hr, 1:25clay, 12/07/00	Clay	1:25	0	5000.0	10	401.2	4012.00	19.76
s001207_084	10x E00-1311-3039-S1,5.0mg/L,0hr, 1:25clay, 12/07/00	Clay	1:25	0	5000.0	10	450.84	4508.40	9.83

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Sample Data File	Sample Description	Soil Type	Soil:Solution Ratio	Time Point, Hours	Theoretical Test Substance Concentration, ug/L	Dilution Factor	Measured Concentration, ug/L (from Instrument)	Observed Solution Concentration, ug/L (measured x dilution factor)	Amount of Substance Adsorbed, %
s001207_104	10x E00-1311-3040-S1,5.0mg/L,2hr, 1:1clay, 12/07/00	Clay	1:1	2	5000.0	10	144.29	1442.90	71.14
s001207_105	10x E00-1311-3041-S1,5.0mg/L,2hr, 1:1clay, 12/07/00	Clay	1:1	2	5000.0	10	98.63	986.30	80.27
s001207_106	10x E00-1311-3042-S1,5.0mg/L,2hr, 1:1clay, 12/07/00	Clay	1:1	2	5000.0	10	68.87	688.70	86.23
s001207_111	10x E00-1311-3043-S1,5.0mg/L,2hr, 1:5clay, 12/07/00	Clay	1:5	2	5000.0	10	<25.0	<250	>95%
s001207_112	10x E00-1311-3044-S1,5.0mg/L,2hr, 1:5clay, 12/07/00	Clay	1:5	2	5000.0	10	155.7	1557.00	68.86
s001207_113	10x E00-1311-3045-S1,5.0mg/L,2hr, 1:5clay, 12/07/00	Clay	1:5	2	5000.0	10	140.92	1409.20	71.82
s001207_118	10x E00-1311-3046-S1,5.0mg/L,2hr, 1:25clay, 12/07/00	Clay	1:25	2	5000.0	10	317.1	3171.00	36.58
s001207_119	10x E00-1311-3047-S1,5.0mg/L,2hr, 1:25clay, 12/07/00	Clay	1:25	2	5000.0	10	318.56	3185.60	36.29
s001207_120	10x E00-1311-3048-S1,5.0mg/L,2hr, 1:25clay, 12/07/00	Clay	1:25	2	5000.0	10	326.3	3263.00	34.74
s001207_122	10x E00-1311-3049-S1,5.0mg/L,4hr, 1:1clay, 12/07/00	Clay	1:1	4	5000.0	10	113.88	1138.80	77.22
s001207_126	10x E00-1311-3050-S1,5.0mg/L,4hr, 1:1clay, 12/07/00	Clay	1:1	4	5000.0	10	88.39	883.90	82.32
s001207_127	10x E00-1311-3051-S1,5.0mg/L,4hr, 1:1clay, 12/07/00	Clay	1:1	4	5000.0	10	92.13	921.30	81.57
s001207_129	10x E00-1311-3052-S1,5.0mg/L,4hr, 1:5clay, 12/07/00	Clay	1:5	4	5000.0	10	126.4	1264.00	74.72
s001207_130	10x E00-1311-3053-S1,5.0mg/L,4hr, 1:5clay, 12/07/00	Clay	1:5	4	5000.0	10	113.16	1131.60	77.37
s001207_134	10x E00-1311-3054-S1,5.0mg/L,4hr, 1:5clay, 12/07/00	Clay	1:5	4	5000.0	10	136.92	1369.20	72.62
s001207_136	10x E00-1311-3055-S1,5.0mg/L,4hr, 1:25clay, 12/07/00	Clay	1:25	4	5000.0	10	326.15	3261.50	34.77
s001207_137	10x E00-1311-3056-S1,5.0mg/L,4hr, 1:25clay, 12/07/00	Clay	1:25	4	5000.0	10	326.21	3262.10	34.76
s001207_138	10x E00-1311-3057-S1,5.0mg/L,4hr, 1:25clay, 12/07/00	Clay	1:25	4	5000.0	10	319.46	3194.60	36.11
s001211_054	10x E00-1311-3058-S1, 5.0mg/L, 8hr, 1:1Clay, 12/07/00	Clay	1:1	8	5000.0	10	130.4	1304.00	73.92
s001211_055	10x E00-1311-3059-S1, 5.0mg/L, 8hr, 1:1Clay, 12/07/00	Clay	1:1	8	5000.0	10	114.48	1144.80	77.10
s001211_056	10x E00-1311-3060-S1, 5.0mg/L, 8hr, 1:1Clay, 12/07/00	Clay	1:1	8	5000.0	10	111.17	1111.70	77.77
s001211_061	10x E00-1311-3061-S1, 5.0mg/L, 8hr, 1:5Clay, 12/07/00	Clay	1:5	8	5000.0	10	293.97	2939.70	41.21
s001211_062	10x E00-1311-3062-S1, 5.0mg/L, 8hr, 1:5Clay, 12/07/00	Clay	1:5	8	5000.0	10	314.29	3142.90	37.14
s001211_063	10x E00-1311-3063-S1, 5.0mg/L, 8hr, 1:5Clay, 12/07/00	Clay	1:5	8	5000.0	10	287.97	2879.70	42.41
s001211_068	10x E00-1311-3064-S1, 5.0mg/L, 8hr, 1:25Clay, 12/07/00	Clay	1:25	8	5000.0	10	118.92	1189.20	76.22
s001211_069	10x E00-1311-3065-S1, 5.0mg/L, 8hr, 1:25Clay, 12/07/00	Clay	1:25	8	5000.0	10	305.1	3051.00	38.98
s001211_070	10x E00-1311-3066-S1, 5.0mg/L, 8hr, 1:25Clay, 12/07/00	Clay	1:25	8	5000.0	10	128.68	1286.80	74.26
s001207_143	10x E00-1311-3067-S1,5.0mg/L,16hr, 1:1clay, 12/07/00	Clay	1:1	16	5000.0	10	119.29	1192.90	76.14
s001207_144	10x E00-1311-3068-S1,5.0mg/L,16hr, 1:1clay, 12/07/00	Clay	1:1	16	5000.0	10	99.92	999.20	80.02
s001207_145	10x E00-1311-3069-S1,5.0mg/L,16hr, 1:1clay, 12/07/00	Clay	1:1	16	5000.0	10	166.04	1660.40	66.79
s001207_150	10x E00-1311-3070-S1,5.0mg/L,16hr, 1:5clay, 12/07/00	Clay	1:5	16	5000.0	10	140.62	1406.20	71.88
s001207_151	10x E00-1311-3071-S1,5.0mg/L,16hr, 1:5clay, 12/07/00	Clay	1:5	16	5000.0	10	136.17	1361.70	72.77
s001207_152	10x E00-1311-3072-S1,5.0mg/L,16hr, 1:5clay, 12/07/00	Clay	1:5	16	5000.0	10	152.02	1520.20	69.60
s001207_154	10x E00-1311-3073-S1,5.0mg/L,16hr, 1:25clay, 12/07/00	Clay	1:25	16	5000.0	10	330.98	3309.80	33.80
s001207_158	10x E00-1311-3074-S1,5.0mg/L,16hr, 1:25clay, 12/07/00	Clay	1:25	16	5000.0	10	321.53	3215.30	35.69
s001207_159	10x E00-1311-3075-S1,5.0mg/L,16hr, 1:25clay, 12/07/00	Clay	1:25	16	5000.0	10	346.78	3467.80	30.64
Hill0037.D	10x E00-1311-3076-S1,5.0mg/L,24hr, 1:1clay, 12/07/00	Clay	1:1	24	5000.0	10	125.10	1251.00	74.98
Hill0038.D	10x E00-1311-3077-S1,5.0mg/L,24hr, 1:1clay, 12/07/00	Clay	1:1	24	5000.0	10	105.41	1054.08	78.92
Hill0039.D	10x E00-1311-3078-S1,5.0mg/L,24hr, 1:1clay, 12/07/00	Clay	1:1	24	5000.0	10	34.09	340.90	93.18
Hill0041.D	10x E00-1311-3079-S1,5.0mg/L,24hr, 1:5clay, 12/07/00	Clay	1:5	24	5000.0	10	116.70	1166.96	76.66
Hill0045.D	10x E00-1311-3080-S1,5.0mg/L,24hr, 1:5clay, 12/07/00	Clay	1:5	24	5000.0	10	110.21	1102.12	77.96
Hill0046.D	10x E00-1311-3081-S1,5.0mg/L,24hr, 1:5clay, 12/07/00	Clay	1:5	24	5000.0	10	96.72	967.23	80.66
Hill0048.D	10x E00-1311-3082-S1,5.0mg/L,24hr, 1:25clay, 12/07/00	Clay	1:25	24	5000.0	10	288.55	2885.54	42.29
Hill0049.D	10x E00-1311-3083-S1,5.0mg/L,24hr, 1:25clay, 12/07/00	Clay	1:25	24	5000.0	10	284.21	2842.13	43.16
Hill0053.D	10x E00-1311-3084-S1,5.0mg/L,24hr, 1:25clay, 12/07/00	Clay	1:25	24	5000.0	10	288.46	2884.61	42.31

3M Environmental Laboratory

Sample Data File	Sample Description	Soil Type	Soil:Solution Ratio	Time Point, Hours	Theoretical Test Substance Concentration, ug/L	Dilution Factor	Measured Concentration, ug/L (from Instrument)	Observed Solution Concentration, ug/L (measured x dilution factor)	Amount of Substance Adsorbed, %
s001211_072	10x E00-1311-3085-S1, 5.0mg/L, 36hr, 1:1Clay, 12/07/00	Clay	1:1	36	5000.0	10	131.97	1319.70	73.61
s001211_076	10x E00-1311-3086-S1, 5.0mg/L, 36hr, 1:1Clay, 12/07/00	Clay	1:1	36	5000.0	10	138.13	1381.30	72.37
s001211_077	10x E00-1311-3087-S1, 5.0mg/L, 36hr, 1:1Clay, 12/07/00	Clay	1:1	36	5000.0	10	44.59	445.90	91.08
s001211_079	10x E00-1311-3088-S1, 5.0mg/L, 36hr, 1:5Clay, 12/07/00	Clay	1:5	36	5000.0	10	103.26	1032.60	79.35
s001211_080	10x E00-1311-3089-S1, 5.0mg/L, 36hr, 1:5Clay, 12/07/00	Clay	1:5	36	5000.0	10	119.9	1199.00	76.02
s001211_084	10x E00-1311-3090-S1, 5.0mg/L, 36hr, 1:5Clay, 12/07/00	Clay	1:5	36	5000.0	10	129.42	1294.20	74.12
s001211_086	10x E00-1311-3091-S1, 5.0mg/L, 36hr, 1:25Clay, 12/07/00	Clay	1:25	36	5000.0	10	299.09	2990.90	40.18
s001211_087	10x E00-1311-3092-S1, 5.0mg/L, 36hr, 1:25Clay, 12/07/00	Clay	1:25	36	5000.0	10	313.39	3133.90	37.32
s001211_088	10x E00-1311-3093-S1, 5.0mg/L, 36hr, 1:25Clay, 12/07/00	Clay	1:25	36	5000.0	10	289.84	2898.40	42.03
s001211_093	10x E00-1311-3094-S1, 5.0mg/L, 48hr, 1:1Clay, 12/07/00	Clay	1:1	48	5000.0	10	59.14	591.40	88.17
s001211_094	10x E00-1311-3095-S1, 5.0mg/L, 48hr, 1:1Clay, 12/07/00	Clay	1:1	48	5000.0	10	62.46	624.60	87.51
s001211_095	10x E00-1311-3096-S1, 5.0mg/L, 48hr, 1:1Clay, 12/07/00	Clay	1:1	48	5000.0	10	69.48	694.80	86.10
s001211_100	10x E00-1311-3097-S1, 5.0mg/L, 48hr, 1:5Clay, 12/07/00	Clay	1:5	48	5000.0	10	92.9	929.00	81.42
s001211_101	10x E00-1311-3098-S1, 5.0mg/L, 48hr, 1:5Clay, 12/07/00	Clay	1:5	48	5000.0	10	107.09	1070.90	78.58
s001211_102	10x E00-1311-3099-S1, 5.0mg/L, 48hr, 1:5Clay, 12/07/00	Clay	1:5	48	5000.0	10	95.6	956.00	80.88
s001211_104	10x E00-1311-3100-S1, 5.0mg/L, 48hr, 1:25Clay, 12/07/00	Clay	1:25	48	5000.0	10	301.56	3015.60	39.69
s001211_108	10x E00-1311-3101-S1, 5.0mg/L, 48hr, 1:25Clay, 12/07/00	Clay	1:25	48	5000.0	10	331.37	3313.70	33.73
s001211_109	10x E00-1311-3102-S1, 5.0mg/L, 48hr, 1:25Clay, 12/07/00	Clay	1:25	48	5000.0	10	361.05	3610.50	27.79
Hill0055.D	10x E00-1311-3103-S1, 5.0mg/L, 0hr, 1:1Sediment, 12/07/00	Sediment	1:1	0	5000.0	10	118.32	1183.16	76.34
Hill0056.D	*10x E00-1311-3104-S1, 5.0mg/L, 0hr, 1:1Sediment, 12/07/00*	Sediment	1:1	0	5000.0	10	121.89	1218.86	75.62
Hill0057.D	10x E00-1311-3105-S1, 5.0mg/L, 0hr, 1:1Sediment, 12/07/00	Sediment	1:1	0	5000.0	10	87.39	873.87	82.52
Hill0062.D	10x E00-1311-3106-S1, 5.0mg/L, 0hr, 1:5Sediment, 12/07/00	Sediment	1:5	0	5000.0	10	451.55	4515.51	9.69
Hill0063.D	10x E00-1311-3107-S1, 5.0mg/L, 0hr, 1:5Sediment, 12/07/00	Sediment	1:5	0	5000.0	10	442.99	4429.87	11.40
Hill0064.D	10x E00-1311-3108-S1, 5.0mg/L, 0hr, 1:5Sediment, 12/07/00	Sediment	1:5	0	5000.0	10	447.69	4476.92	10.46
Hill0069.D	10x E00-1311-3109-S1, 5.0mg/L, 0hr, 1:25Sediment, 12/07/00	Sediment	1:25	0	5000.0	10	402.85	4028.50	19.43
Hill0070.D	10x E00-1311-3110-S1, 5.0mg/L, 0hr, 1:25Sediment, 12/07/00	Sediment	1:25	0	5000.0	10	428.58	4285.82	14.28
Hill0071.D	10x E00-1311-3111-S1, 5.0mg/L, 0hr, 1:25Sediment, 12/07/00	Sediment	1:25	0	5000.0	10	425.08	4250.83	14.98
Hill0073.D	10x E00-1311-3112-S1, 5.0mg/L, 2hr, 1:1Sediment, 12/07/00	Sediment	1:1	2	5000.0	10	78.07	780.65	84.39
Hill0077.D	10x E00-1311-3113-S1, 5.0mg/L, 2hr, 1:1Sediment, 12/07/00	Sediment	1:1	2	5000.0	10	85.86	858.62	82.83
Hill0078.D	10x E00-1311-3114-S1, 5.0mg/L, 2hr, 1:1Sediment, 12/07/00	Sediment	1:1	2	5000.0	10	59.32	593.21	88.14
Hill0080.D	10x E00-1311-3115-S1, 5.0mg/L, 2hr, 1:5Sediment, 12/07/00	Sediment	1:5	2	5000.0	10	247.50	2475.02	50.50
Hill0081.D	10x E00-1311-3116-S1, 5.0mg/L, 2hr, 1:5Sediment, 12/07/00	Sediment	1:5	2	5000.0	10	268.70	2687.00	46.26
Hill0101.D	10x E00-1311-3117-S1, 5.0mg/L, 2hr, 1:5Sediment, 12/07/00	Sediment	1:5	2	5000.0	10	331.41	3314.09	33.72
Hill0103.D	10x E00-1311-3118-S1, 5.0mg/L, 2hr, 1:25 Sediment, 12/07/00	Sediment	1:25	2	5000.0	10	365.63	3656.30	26.87
Hill0104.D	10x E00-1311-3119-S1, 5.0mg/L, 2hr, 1:25 Sediment, 12/07/00	Sediment	1:25	2	5000.0	10	<25.0	<250	>95%
Hill0105.D	10x E00-1311-3120-S1, 5.0mg/L, 2hr, 1:25 Sediment, 12/07/00	Sediment	1:25	2	5000.0	10	<25.0	<250	>95%
Hill0110.D	10x E00-1311-3121-S1, 5.0mg/L, 4hr, 1:1 Sediment, 12/07/00	Sediment	1:1	4	5000.0	10	<25.0	<250	>95%
Hill0111.D	10x E00-1311-3122-S1, 5.0mg/L, 4hr, 1:1 Sediment, 12/07/00	Sediment	1:1	4	5000.0	10	80.43	804.32	83.91
Hill0112.D	10x E00-1311-3123-S1, 5.0mg/L, 4hr, 1:1 Sediment, 12/07/00	Sediment	1:1	4	5000.0	10	63.71	637.08	87.26
Hill0117.D	10x E00-1311-3124-S1, 5.0mg/L, 4hr, 1:5 Sediment, 12/07/00	Sediment	1:5	4	5000.0	10	242.86	2428.62	51.43
Hill0118.D	10x E00-1311-3125-S1, 5.0mg/L, 4hr, 1:5 Sediment, 12/07/00	Sediment	1:5	4	5000.0	10	246.91	2469.09	50.62
Hill0119.D	10x E00-1311-3126-S1, 5.0mg/L, 4hr, 1:5 Sediment, 12/07/00	Sediment	1:5	4	5000.0	10	245.14	2451.42	50.97
Hill0121.D	10x E00-1311-3127-S1, 5.0mg/L, 4hr, 1:25 Sediment, 12/07/00	Sediment	1:25	4	5000.0	10	380.34	3803.38	23.93
Hill0125.D	10x E00-1311-3128-S1, 5.0mg/L, 4hr, 1:25 Sediment, 12/07/00	Sediment	1:25	4	5000.0	10	374.21	3742.10	25.16
Hill0126.D	10x E00-1311-3129-S1, 5.0mg/L, 4hr, 1:25 Sediment, 12/07/00	Sediment	1:25	4	5000.0	10	368.76	3687.58	26.25

Sample Data File	Sample Description	Soil Type	Soil:Solution Ratio	Time Point, Hours	Theoretical Test Substance Concentration, ug/L	Dilution Factor	Measured Concentration, ug/L (from Instrument)	Observed Solution Concentration, ug/L (measured x dilution factor)	Amount of Substance Adsorbed, %
t001215_048	10x E00-1311-3130-S1, 5.0mg/L, 8hr, 1:1 Sediment, 12/07/00	Sediment	1:1	8	5000.0	10	98.66	986.60	80.27
t001215_049	10x E00-1311-3131-S1, 5.0mg/L, 8hr, 1:1 Sediment, 12/07/00	Sediment	1:1	8	5000.0	10	92.97	929.70	81.41
t001215_053	10x E00-1311-3132-S1, 5.0mg/L, 8hr, 1:1 Sediment, 12/07/00	Sediment	1:1	8	5000.0	10	87.04	870.40	82.59
t001215_055	10x E00-1311-3133-S1, 5.0mg/L, 8hr, 1:5 Sediment, 12/07/00	Sediment	1:5	8	5000.0	10	396.95	3969.50	20.61
t001215_056	10x E00-1311-3134-S1, 5.0mg/L, 8hr, 1:5 Sediment, 12/07/00	Sediment	1:5	8	5000.0	10	233.83	2338.30	53.23
t001215_057	10x E00-1311-3135-S1, 5.0mg/L, 8hr, 1:5 Sediment, 12/07/00	Sediment	1:5	8	5000.0	10	271.08	2710.80	45.78
t001215_062	10x E00-1311-3136-S1, 5.0mg/L, 8hr, 1:25 Sediment, 12/07/00	Sediment	1:25	8	5000.0	10	322.07	3220.70	35.59
t001215_063	10x E00-1311-3137-S1, 5.0mg/L, 8hr, 1:25 Sediment, 12/07/00	Sediment	1:25	8	5000.0	10	341.64	3416.40	31.67
t001215_064	10x E00-1311-3138-S1, 5.0mg/L, 8hr, 1:25 Sediment, 12/07/00	Sediment	1:25	8	5000.0	10	340.94	3409.40	31.81
t001215_069	10x E00-1311-3139-S1, 5.0mg/L, 16hr, 1:1 Sediment, 12/07/00	Sediment	1:1	16	5000.0	10	65.07	650.70	86.99
t001215_070	10x E00-1311-3140-S1, 5.0mg/L, 16hr, 1:1 Sediment, 12/07/00	Sediment	1:1	16	5000.0	10	80.84	808.40	83.83
t001215_073	10x E00-1311-3142-S1, 5.0mg/L, 16hr, 1:5 Sediment, 12/07/00	Sediment	1:5	16	5000.0	10	248.78	2487.80	50.24
t001215_077	10x E00-1311-3143-S1, 5.0mg/L, 16hr, 1:5 Sediment, 12/07/00	Sediment	1:5	16	5000.0	10	247.05	2470.50	50.59
t001215_078	10x E00-1311-3144-S1, 5.0mg/L, 16hr, 1:5 Sediment, 12/07/00	Sediment	1:5	16	5000.0	10	268.5	2685.00	46.30
t001215_080	10x E00-1311-3145-S1, 5.0mg/L, 16hr, 1:25 Sediment, 12/07/00	Sediment	1:25	16	5000.0	10	355.44	3554.40	28.91
t001215_081	10x E00-1311-3146-S1, 5.0mg/L, 16hr, 1:25 Sediment, 12/07/00	Sediment	1:25	16	5000.0	10	338.22	3382.20	32.36
t001215_085	10x E00-1311-3147-S1, 5.0mg/L, 16hr, 1:25 Sediment, 12/07/00	Sediment	1:25	16	5000.0	10	355.34	3553.40	28.93
t001215_087	10x E00-1311-3148-S1, 5.0mg/L, 24hr, 1:1 Sediment, 12/07/00	Sediment	1:1	24	5000.0	10	71.71	717.10	85.66
t001215_088	10x E00-1311-3149-S1, 5.0mg/L, 24hr, 1:1 Sediment, 12/07/00	Sediment	1:1	24	5000.0	10	57.44	574.40	88.51
t001215_089	10x E00-1311-3150-S1, 5.0mg/L, 24hr, 1:1 Sediment, 12/07/00	Sediment	1:1	24	5000.0	10	36.51	365.10	92.70
t001215_094	10x E00-1311-3151-S1, 5.0mg/L, 24hr, 1:5 Sediment, 12/07/00	Sediment	1:5	24	5000.0	10	229.84	2298.40	54.03
t001215_095	10x E00-1311-3152-S1, 5.0mg/L, 24hr, 1:5 Sediment, 12/07/00	Sediment	1:5	24	5000.0	10	237.34	2373.40	52.53
t001215_096	10x E00-1311-3153-S1, 5.0mg/L, 24hr, 1:5 Sediment, 12/07/00	Sediment	1:5	24	5000.0	10	220.6	2206.00	55.88
t001215_116	10x E00-1311-3154-S1, 5.0mg/L, 24hr, 1:25 Sediment, 12/07/00	Sediment	1:25	24	5000.0	10	355.21	3552.10	28.96
t001215_117	10x E00-1311-3155-S1, 5.0mg/L, 24hr, 1:25 Sediment, 12/07/00	Sediment	1:25	24	5000.0	10	320.83	3208.30	35.83
t001215_118	10x E00-1311-3156-S1, 5.0mg/L, 24hr, 1:25 Sediment, 12/07/00	Sediment	1:25	24	5000.0	10	304.11	3041.10	39.18
t001215_120	10x E00-1311-3157-S1, 5.0mg/L, 36hr, 1:1 Sediment, 12/07/00	Sediment	1:1	36	5000.0	10	83.87	838.70	83.23
t001215_124	10x E00-1311-3158-S1, 5.0mg/L, 36hr, 1:1 Sediment, 12/07/00	Sediment	1:1	36	5000.0	10	80.37	803.70	83.93
t001215_125	10x E00-1311-3159-S1, 5.0mg/L, 36hr, 1:1 Sediment, 12/07/00	Sediment	1:1	36	5000.0	10	50.58	505.80	89.88
t001215_127	10x E00-1311-3160-S1, 5.0mg/L, 36hr, 1:5 Sediment, 12/07/00	Sediment	1:5	36	5000.0	10	208.79	2087.90	58.24
t001215_128	10x E00-1311-3161-S1, 5.0mg/L, 36hr, 1:5 Sediment, 12/07/00	Sediment	1:5	36	5000.0	10	212.87	2128.70	57.43
t001215_132	10x E00-1311-3162-S1, 5.0mg/L, 36hr, 1:5 Sediment, 12/07/00	Sediment	1:5	36	5000.0	10	253.48	2534.80	49.30
t001215_134	10x E00-1311-3163-S1, 5.0mg/L, 36hr, 1:25 Sediment, 12/07/00	Sediment	1:25	36	5000.0	10	319.84	3198.40	36.03
t001215_135	10x E00-1311-3164-S1, 5.0mg/L, 36hr, 1:25 Sediment, 12/07/00	Sediment	1:25	36	5000.0	10	318.04	3180.40	36.39
t001215_136	10x E00-1311-3165-S1, 5.0mg/L, 36hr, 1:25 Sediment, 12/07/00	Sediment	1:25	36	5000.0	10	371.72	3717.20	25.66
t001215_141	10x E00-1311-3166-S1, 5.0mg/L, 48hr, 1:1 Sediment, 12/07/00	Sediment	1:1	48	5000.0	10	68.64	686.40	86.27
t001215_142	10x E00-1311-3167-S1, 5.0mg/L, 48hr, 1:1 Sediment, 12/07/00	Sediment	1:1	48	5000.0	10	60.37	603.70	87.93
t001215_143	10x E00-1311-3168-S1, 5.0mg/L, 48hr, 1:1 Sediment, 12/07/00	Sediment	1:1	48	5000.0	10	30.48	304.80	93.90
t001215_148	10x E00-1311-3169-S1, 5.0mg/L, 48hr, 1:5 Sediment, 12/07/00	Sediment	1:5	48	5000.0	10	198.79	1987.90	60.24
t001215_149	10x E00-1311-3170-S1, 5.0mg/L, 48hr, 1:5 Sediment, 12/07/00	Sediment	1:5	48	5000.0	10	237.42	2374.20	52.52
t001215_150	10x E00-1311-3171-S1, 5.0mg/L, 48hr, 1:5 Sediment, 12/07/00	Sediment	1:5	48	5000.0	10	196.59	1965.90	60.68
t001215_152	10x E00-1311-3172-S1, 5.0mg/L, 48hr, 1:25 Sediment, 12/07/00	Sediment	1:25	48	5000.0	10	304.44	3044.40	39.11
t001215_156	10x E00-1311-3173-S1, 5.0mg/L, 48hr, 1:25 Sediment, 12/07/00	Sediment	1:25	48	5000.0	10	368.92	3689.20	26.22
t001215_157	10x E00-1311-3174-S1, 5.0mg/L, 48hr, 1:25 Sediment, 12/07/00	Sediment	1:25	48	5000.0	10	346.68	3466.80	30.66

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Sample Data File	Sample Description	Soil Type	Soil:Solution Ratio	Time Point, Hours	Theoretical Test Substance Concentration, ug/L	Dilution Factor	Measured Concentration, ug/L (from Instrument)	Observed Solution Concentration, ug/L (measured x dilution factor)	Amount of Substance Adsorbed, %
Hill0128.D	10x E00-1311-3175-S1, 0.0mg/L, 0hr, 1:1 Sediment, 12/07/00	Sediment	1:1	0	0.0	10	<25.0	<250	
Hill0129.D	10x E00-1311-3176-S1, 0.0mg/L, 0hr, 1:1 Sediment, 12/07/00	Sediment	1:1	0	0.0	10	<25.0	<250	
Hill0133.D	10x E00-1311-3177-S1, 0.0mg/L, 0hr, 1:1 Sediment, 12/07/00	Sediment	1:1	0	0.0	10	<25.0	<250	
Hill0135.D	10x E00-1311-3178-S1, 0.0mg/L, 0hr, 1:5 Sediment, 12/07/00	Sediment	1:5	0	0.0	10	<25.0	<250	
Hill0136.D	10x E00-1311-3179-S1, 0.0mg/L, 0hr, 1:5 Sediment, 12/07/00	Sediment	1:5	0	0.0	10	<25.0	<250	
Hill0137.D	10x E00-1311-3180-S1, 0.0mg/L, 0hr, 1:5 Sediment, 12/07/00	Sediment	1:5	0	0.0	10	<25.0	<250	
Hill0142.D	10x E00-1311-3181-S1, 0.0mg/L, 0hr, 1:25 Sediment, 12/07/00	Sediment	1:25	0	0.0	10	<25.0	<250	
Hill0143.D	10x E00-1311-3182-S1, 0.0mg/L, 0hr, 1:25 Sediment, 12/07/00	Sediment	1:25	0	0.0	10	<25.0	<250	
Hill0144.D	10x E00-1311-3183-S1, 0.0mg/L, 0hr, 1:25 Sediment, 12/07/00	Sediment	1:25	0	0.0	10	<25.0	<250	
t001215_162	10x E00-1311-3184-S1, 0.0mg/L, 48hr, 1:1 Sediment, 12/07/00	Sediment	1:1	48	0.0	10	<25.0	<250	
t001215_163	10x E00-1311-3185-S1, 0.0mg/L, 48hr, 1:1 Sediment, 12/07/00	Sediment	1:1	48	0.0	10	<25.0	<250	
t001215_164	10x E00-1311-3186-S1, 0.0mg/L, 48hr, 1:1 Sediment, 12/07/00	Sediment	1:1	48	0.0	10	<25.0	<250	
t001215_166	10x E00-1311-3187-S1, 0.0mg/L, 48hr, 1:5 Sediment, 12/07/00	Sediment	1:5	48	0.0	10	<25.0	<250	
t001215_170	10x E00-1311-3188-S1, 0.0mg/L, 48hr, 1:5 Sediment, 12/07/00	Sediment	1:5	48	0.0	10	<25.0	<250	
t001215_171	10x E00-1311-3189-S1, 0.0mg/L, 48hr, 1:5 Sediment, 12/07/00	Sediment	1:5	48	0.0	10	<25.0	<250	
t001215_173	10x E00-1311-3190-S1, 0.0mg/L, 48hr, 1:25 Sediment, 12/07/00	Sediment	1:25	48	0.0	10	<25.0	<250	
t001215_174	10x E00-1311-3191-S1, 0.0mg/L, 48hr, 1:25 Sediment, 12/07/00	Sediment	1:25	48	0.0	10	<25.0	<250	
t001215_178	10x E00-1311-3192-S1, 0.0mg/L, 48hr, 1:25 Sediment, 12/07/00	Sediment	1:25	48	0.0	10	<25.0	<250	

Note: The control samples that did not contain soil (3004-3006, 3010-3012) there was no recovery of the test substance. This was because the test vessels were mistakenly not dosed with the test substance.

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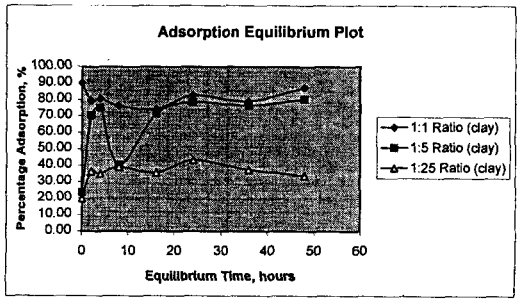
Adsorption Kinetics, One Concentration

			Calculation of A_s (adsorption % at time t) *to be plotted vs time*							Calculation of distribution Coefficient, K_d	
		t_i	V_o	C_o	m_o	$C^{ads}_{aq}(t_i)$	$m^{ads}_s(t_i)$	A_s	Average A_s	m_{soil}	K_d
Sample Data File	**Sample Description**	Time point (hours)	Initial Volume of the test solution in contact with the soil (mL)	Initial mass concentration of the test solution in contact with the soil (ug/mL)	Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_o$	Mass concentration of the substance in the aqueous phase at the time that the analysis was performed (ug/mL), determined analytically.	Mass of test substance on soil at the time t_i that the analysis was performed (ug), $m^{ads}_s(t_i) = m_o - (C^{ads}_{aq}(t_i) \times V_o)$	Adsorption percentage at time point t_i, $A_s = (m^{ads}_s(t_i) / m_o) \times 100\%$	Average Adsorption percentage at time point t_i, $A_s = \sum_{i=1}^{n} (m^{ads}_s(t_i) / m_o) \times 100\% / n$	Quantity of the soil phase, expressed in dry mass of soil, g	Distribution coefficient (ml/g), $K_d = (A_s / (100-A_s)) \times (V_o / m_{soil})$
s001207_069	10x E00-1311-3032-S1,5.0mg/L, 0hr, 1:1clay, 12/07/00	0	5.0	5.0	25	0.477	22.61	90.46	90.06	4.9875	9.502
s001207_076	10x E00-1311-3035-S1,5.0mg/L,0hr, 1:5clay, 12/07/00	0	12.5	5.0	62.5	3.895	13.82	22.10	23.61	2.4953	1.421
s001207_080	10x E00-1311-3038-S1,5.0mg/L,0hr, 1:25clay, 12/07/00	0	25.0	5.0	125	4.012	24.70	19.76	14.71	1.0008	6.152
s001207_105	10x E00-1311-3041-S1,5.0mg/L,2hr, 1:1clay, 12/07/00	2	5.0	5.0	25	0.986	20.07	80.27	79.21	4.9841	4.082
s001207_112	10x E00-1311-3044-S1,5.0mg/L,2hr, 1:5clay, 12/07/00	2	12.5	5.0	62.5	1.557	43.04	68.86	70.34	2.4988	11.062
s001207_119	10x E00-1311-3047-S1,5.0mg/L,2hr, 1:25clay, 12/07/00	2	25.0	5.0	125	3.186	45.36	36.29	35.87	1.0012	14.222
s001207_126	10x E00-1311-3050-S1,5.0mg/L,4hr, 1:1clay, 12/07/00	4	5.0	5.0	25	0.884	20.58	82.32	80.37	5.0085	4.649
s001207_130	10x E00-1311-3053-S1,5.0mg/L,4hr, 1:5clay, 12/07/00	4	12.5	5.0	62.5	1.132	48.36	77.37	74.90	2.5105	17.021
s001207_137	10x E00-1311-3056-S1,5.0mg/L,4hr, 1:25clay, 12/07/00	4	25.0	5.0	125	3.262	43.45	34.76	35.21	1.0241	13.005
s001211_055	10x E00-1311-3059-S1, 5.0mg/L, 8hr, 1:1Clay, 12/07/00	8	5.0	5.0	25	1.145	19.28	77.10	76.26	4.9889	3.375
s001211_062	10x E00-1311-3062-S1, 5.0mg/L, 8hr, 1:5Clay, 12/07/00	8	12.5	5.0	62.5	3.143	23.21	37.14	40.25	2.5122	2.940
s001211_069	10x E00-1311-3065-S1, 5.0mg/L, 8hr, 1:25Clay, 12/07/00	8	25.0	5.0	125	3.051	48.73	38.98	63.15	1.0084	15.837
s001207_144	10x E00-1311-3068-S1,5.0mg/L,16hr, 1:1clay, 12/07/00	16	5.0	5.0	25	0.999	20.00	80.02	74.32	5.0035	4.001
s001207_151	10x E00-1311-3071-S1,5.0mg/L,16hr, 1:5clay, 12/07/00	16	12.5	5.0	62.5	1.362	45.48	72.77	71.41	2.4968	13.377
s001207_158	10x E00-1311-3074-S1,5.0mg/L,16hr, 1:25clay, 12/07/00	16	25.0	5.0	125	3.215	44.62	35.69	33.38	0.9964	13.927
Hill0038.D	10x E00-1311-3077-S1,5.0mg/L,24hr, 1:1clay, 12/07/00	24	5.0	5.0	25	1.054	19.73	78.92	82.36	4.9963	3.746
Hill0045.D	10x E00-1311-3080-S1,5.0mg/L,24hr, 1:5clay, 12/07/00	24	12.5	5.0	62.5	1.102	48.72	77.96	78.42	2.5080	17.627
Hill0049.D	10x E00-1311-3083-S1,5.0mg/L,24hr, 1:25clay, 12/07/00	24	25.0	5.0	125	2.842	53.95	43.16	42.58	1.0099	18.795
s001211_076	10x E00-1311-3086-S1, 5.0mg/L, 36hr, 1:1Clay, 12/07/00	36	5.0	5.0	25	1.381	18.09	72.37	79.02	4.9910	2.625
s001211_080	10x E00-1311-3089-S1, 5.0mg/L, 36hr, 1:5Clay, 12/07/00	36	12.5	5.0	62.5	1.199	47.51	76.02	76.49	2.5308	15.658
s001211_087	10x E00-1311-3092-S1, 5.0mg/L, 36hr, 1:25Clay, 12/07/00	36	25.0	5.0	125	3.134	46.65	37.32	39.85	0.9940	14.976
s001211_094	10x E00-1311-3095-S1, 5.0mg/L, 48hr, 1:1Clay, 12/07/00	48	5.0	5.0	25	0.625	21.88	87.51	87.26	4.9899	7.019
s001211_101	10x E00-1311-3098-S1, 5.0mg/L, 48hr, 1:5Clay, 12/07/00	48	12.5	5.0	62.5	1.071	49.11	78.58	80.29	2.5174	18.218
s001211_108	10x E00-1311-3101-S1, 5.0mg/L, 48hr, 1:25Clay, 12/07/00	48	25.0	5.0	125	3.314	42.16	33.73	33.73	0.9859	12.904



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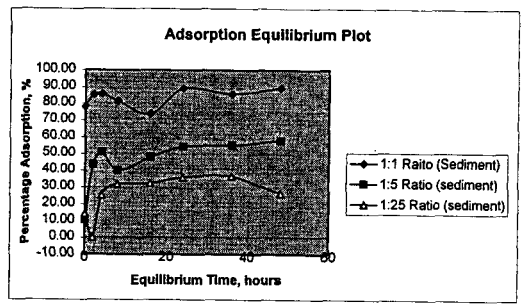
Calculation of A_N (adsorption % at time t) *to be plotted vs time* | Calculation of distribution Coefficient, K_d

Sample Data File	Sample Description	t_i Time point (hours)	V_o Initial Volume of the test solution in contact with the soil (mL)	C_o Initial mass concentration of the test solution in contact with the soil (ug/mL)	m_o Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_o$	$C^{sds}_{aq}(t_i)$ Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/mL), determined analytically.	$m^{sds}_s(t_i)$ Mass of test substance on soil at the time t, that the analysis was performed (ug), $m^{sds}_s(t_i) = m_o - (C^{sds}_{aq}(t_i) \times V_o)$	A_N Adsorption percentage at time point t, $A_N = (m^{sds}_s(t_i) / m_o) \times 100\%$	AverageA Average Adsorption percentage at time point t_i, $A_N = \Sigma^n_{i=1}(m^{sds}_s(t_i) / m_o) \times 100\%/n$	m_{soil} Quantity of the soil phase, expressed in dry mass of soil, g	K_d Distribution coefficient (ml/g), $K_d = (A_N / (100-A_N)) \times (V_o / m_{soil})$
Hill0056.D	10x E00-1311-3104-S1, 5.0mg/L, 0hr, 1:1Sediment, 12/07/00	0	5.0	5.0	25	1.219	18.91	75.62	78.16	4.9773	3.116
Hill0063.D	10x E00-1311-3107-S1, 5.0mg/L, 0hr, 1:5Sediment, 12/07/00	0	12.5	5.0	62.5	4.430	7.13	11.40	10.52	2.4755	0.650
Hill0070.D	10x E00-1311-3110-S1, 5.0mg/L, 0hr, 1:25Sediment, 12/07/00	0	25.0	5.0	125	4.286	17.85	14.28	16.23	1.0199	4.085
Hill0077.D	10x E00-1311-3113-S1, 5.0mg/L, 2hr, 1:1Sediment, 12/07/00	2	5.0	5.0	25	0.859	20.71	82.83	85.12	4.9805	4.842
Hill0081.D	10x E00-1311-3116-S1, 5.0mg/L, 2hr, 1:5Sediment, 12/07/00	2	12.5	5.0	62.5	2.687	28.91	46.26	43.49	2.5095	4.288
Hill0104.D	10x E00-1311-3119-S1, 5.0mg/L, 2hr, 1:25 Sediment, 12/07/00	2	25.0	5.0	125	<.250	>59.38	>95%	26.87	1.0170	>0.236
Hill0111.D	10x E00-1311-3122-S1, 5.0mg/L, 4hr, 1:1 Sediment, 12/07/00	4	5.0	5.0	25	0.804	20.98	83.91	85.59	5.0081	5.208
Hill0118.D	10x E00-1311-3125-S1, 5.0mg/L, 4hr, 1:5 Sediment, 12/07/00	4	12.5	5.0	62.5	2.469	31.64	50.62	51.01	2.5012	5.123
Hill0125.D	10x E00-1311-3128-S1, 5.0mg/L, 4hr, 1:25 Sediment, 12/07/00	4	25.0	5.0	125	3.742	31.45	25.16	25.11	1.0434	8.054
t001215_049	10x E00-1311-3131-S1, 5.0mg/L, 8hr, 1:1 Sediment, 12/07/00	8	5.0	5.0	25	0.930	20.35	81.41	81.42	4.9924	4.385
t001215_056	10x E00-1311-3134-S1, 5.0mg/L, 8hr, 1:5 Sediment, 12/07/00	8	12.5	5.0	62.5	2.338	33.27	53.23	39.88	2.5067	5.676
t001215_063	10x E00-1311-3137-S1, 5.0mg/L, 8hr, 1:25 Sediment, 12/07/00	8	25.0	5.0	125	3.416	39.59	31.67	33.02	1.0303	11.247
t001215_070	10x E00-1311-3140-S1, 5.0mg/L, 16hr, 1:1 Sediment, 12/07/00	16	5.0	5.0	25	0.808	20.96	83.83	73.69	4.9916	5.194
t001215_077	10x E00-1311-3143-S1, 5.0mg/L, 16hr, 1:5 Sediment, 12/07/00	16	12.5	5.0	62.5	2.685	28.94	46.30	47.73	2.5048	4.303
t001215_081	10x E00-1311-3146-S1, 5.0mg/L, 16hr, 1:25 Sediment, 12/07/00	16	25.0	5.0	125	3.382	40.45	32.36	30.07	1.0168	11.761
t001215_088	10x E00-1311-3149-S1, 5.0mg/L, 24hr, 1:1 Sediment, 12/07/00	24	5.0	5.0	25	0.574	22.13	88.51	88.96	4.9896	7.721
t001215_095	10x E00-1311-3152-S1, 5.0mg/L, 24hr, 1:5 Sediment, 12/07/00	24	12.5	5.0	62.5	2.373	32.83	52.53	54.15	2.4987	5.536
t001215_117	10x E00-1311-3155-S1, 5.0mg/L, 24hr, 1:25 Sediment, 12/07/00	24	25.0	5.0	125	3.208	44.79	35.83	34.66	1.0196	13.693
t001215_124	10x E00-1311-3158-S1, 5.0mg/L, 36hr, 1:1 Sediment, 12/07/00	36	5.0	5.0	25	0.804	20.98	83.93	85.68	4.9766	5.246
t001215_128	10x E00-1311-3161-S1, 5.0mg/L, 36hr, 1:5 Sediment, 12/07/00	36	12.5	5.0	62.5	2.129	35.89	57.43	54.99	2.4922	6.765
t001215_135	10x E00-1311-3164-S1, 5.0mg/L, 36hr, 1:25 Sediment, 12/07/00	36	25.0	5.0	125	3.180	45.49	36.39	32.69	1.0315	13.866
t001215_142	10x E00-1311-3167-S1, 5.0mg/L, 48hr, 1:1 Sediment, 12/07/00	48	5.0	5.0	25	0.604	21.98	87.93	89.37	5.0037	7.277
t001215_149	10x E00-1311-3170-S1, 5.0mg/L, 48hr, 1:5 Sediment, 12/07/00	48	12.5	5.0	62.5	2.374	32.82	52.52	57.81	2.4954	5.540
t001215_156	10x E00-1311-3173-S1, 5.0mg/L, 48hr, 1:25 Sediment, 12/07/00	48	25.0	5.0	125	3.689	32.77	26.22	32.00	1.0382	8.556



3M Environmental Laboratory

Tier I "Mass Balance Calculations"

			Adsorb Step			Desorb Step				Mass Balance		
Sample Data Fi	Sample Description	Soil Type	Soil:Solution Ratio	Observed Solution Concentration, ug/L (measured x dilution factor)	Final Volume of Solvent added, ml	Dilution Factor	Measured Concentration, ug/L (from Instrument)	Observed Solution Concentration, ug/L (measured x dilution factor)	Volume of $CaCl_2$ Solution, L	Volume of Methanol Solution, L	Total Test Substance Recovery, %
s001211_093	10x E00-1311-3094-S1, 5.0mg/L, 48hr, 1:1Clay, 12/07/00	Clay	1:1	591.40	9.0	10	95.36	953.6	0.0050	0.0090	46.16
s001211_094	10x E00-1311-3095-S1, 5.0mg/L, 48hr, 1:1Clay, 12/07/00	Clay	1:1	624.60	9.0	10	112.93	1129.3	0.0050	0.0090	53.15
s001211_095	10x E00-1311-3096-S1, 5.0mg/L, 48hr, 1:1Clay, 12/07/00	Clay	1:1	694.80	9.0	10	159.53	1595.3	0.0050	0.0090	71.33
s001211_100	10x E00-1311-3097-S1, 5.0mg/L, 48hr, 1:5Clay, 12/07/00	Clay	1:5	929.00	6.0	10	163.56	1635.6	0.01250	0.0060	34.28
s001211_101	10x E00-1311-3098-S1, 5.0mg/L, 48hr, 1:5Clay, 12/07/00	Clay	1:5	1070.90	6.0	10	147.93	1479.3	0.01250	0.0060	35.62
s001211_102	10x E00-1311-3099-S1, 5.0mg/L, 48hr, 1:5Clay, 12/07/00	Clay	1:5	956.00	6.0	10	**Tube Broke		0.01250	0.0060	
s001211_104	10x E00-1311-3100-S1, 5.0mg/L, 48hr, 1:25Clay, 12/07/00	Clay	1:25	3015.60	6.0	10	476.98	4769.8	0.0250	0.0060	83.21
s001211_108	10x E00-1311-3101-S1, 5.0mg/L, 48hr, 1:25Clay, 12/07/00	Clay	1:25	3313.70	6.0	10	520.09	5200.9	0.0250	0.0060	91.24
s001211_109	10x E00-1311-3102-S1, 5.0mg/L, 48hr, 1:25Clay, 12/07/00	Clay	1:25	3610.50	6.0	10	501.18	5011.8	0.0250	0.0060	96.27
t001215_141	10x E00-1311-3166-S1, 5.0mg/L, 48hr, 1:1 Sediment, 12/07/00	Sediment	1:1	686.40	9.0	10	83.19	831.9	0.0050	0.0090	43.68
t001215_142	10x E00-1311-3167-S1, 5.0mg/L, 48hr, 1:1 Sediment, 12/07/00	Sediment	1:1	603.70	9.0	10	100.14	1001.4	0.0050	0.0090	48.12
t001215_143	10x E00-1311-3168-S1, 5.0mg/L, 48hr, 1:1 Sediment, 12/07/00	Sediment	1:1	304.80	9.0	10	51.56	515.6	0.0050	0.0090	24.66
t001215_148	10x E00-1311-3169-S1, 5.0mg/L, 48hr, 1:5 Sediment, 12/07/00	Sediment	1:5	1987.90	6.0	10	186.19	1861.9	0.01250	0.0060	57.63
t001215_149	10x E00-1311-3170-S1, 5.0mg/L, 48hr, 1:5 Sediment, 12/07/00	Sediment	1:5	2374.20	6.0	10	324.9	3249	0.01250	0.0060	78.67
t001215_150	10x E00-1311-3171-S1, 5.0mg/L, 48hr, 1:5 Sediment, 12/07/00	Sediment	1:5	1965.90	6.0	10	210.45	2104.5	0.01250	0.0060	59.52
t001215_152	10x E00-1311-3172-S1, 5.0mg/L, 48hr, 1:25 Sediment, 12/07/00	Sediment	1:25	3044.40	6.0	10	265.72	2657.2	0.0250	0.0060	73.64
t001215_156	10x E00-1311-3173-S1, 5.0mg/L, 48hr, 1:25 Sediment, 12/07/00	Sediment	1:25	3689.20	6.0	10	282.72	2827.2	0.0250	0.0060	87.35
t001215_157	10x E00-1311-3174-S1, 5.0mg/L, 48hr, 1:25 Sediment, 12/07/00	Sediment	1:25	3466.80	6.0	10	285.76	2857.6	0.0250	0.0060	83.05

CMK 5/23/01

3M Environmental Laboratory

Tier I "Suitable Desorb Solvent"

Sample Data File	Sample Description	Desorb Solvent	Test Substance Added to Soil, ug (ug/ml solution conc. X ml added)	Final Volume, ml	Measured Concentration, ug/L (from Instrument)	Theoretical Solution Concentration, ug/L (ug added to soil / final volume in Liters)	Dilution Factor	Observed Solution Concentration, ug/L (measured x dilution factor)	Recovery, %	Average Observed Solution Concentraton, ug/L	Average Recovery, %
t010122_040	E00-1311-2001, 0ug PFOS, control,1/22/01 CMC	MeOH	0	7.5	<25.0	0	1	<25.0	N/A		
t010122_041	E00-1311-2002, 0ug PFOS, control,1/22/01 CMC	MeOH	0	7.5	<25.0	0	1	<25.0	N/A		
t010122_042	E00-1311-2003, 0ug PFOS, control,1/22/01 CMC	MeOH	0	7.5	<25.0	0	1	<25.0	N/A		
t010122_044	E00-1311-2004, 0.75ug PFOS, control,1/22/01 CMC	MeOH	0.75	7.5	95.92	100	1	95.92	95.92		
t010122_048	E00-1311-2005, 0.75ug PFOS, control,1/22/01 CMC	MeOH	0.75	7.5	96.85	100	1	96.85	96.85	96.1	96.1
t010122_049	E00-1311-2006, 0.75ug PFOS, control,1/22/01 CMC	MeOH	0.75	7.5	95.39	100	1	95.39	95.39		
t010122_051	E00-1311-2007, 7.5ug PFOS, control,1/22/01 CMC	MeOH	7.5	7.5	802.01	1000	1	802.01	80.20		
t010122_052	E00-1311-2008, 7.5ug PFOS, control,1/22/01 CMC	MeOH	7.5	7.5	587.71	1000	1	587.71	58.77	687.0	68.7
t010122_056	E00-1311-2009, 7.5ug PFOS, control,1/22/01 CMC	MeOH	7.5	7.5	671.3	1000	1	671.3	67.13		
t010122_058	E00-1311-2010, 0ug PFOS, Clay,1/22/01 CMC	MeOH	0	7.5	<25.0	0	1	<25.0	N/A		
t010122_059	E00-1311-2011, 0ug PFOS, Clay,1/22/01 CMC	MeOH	0	7.5	<25.0	0	1	<25.0	N/A		
t010122_060	E00-1311-2012, 0ug PFOS, Clay,1/22/01 CMC	MeOH	0	7.5	<25.0	0	1	<25.0	N/A		
t010122_065	E00-1311-2013, 0.75ug PFOS, Clay,1/22/01 CMC	MeOH	0.75	7.5	63.71	100	1	63.71	63.71		
t010122_066	E00-1311-2014, 0.75ug PFOS, Clay,1/22/01 CMC	MeOH	0.75	7.5	75.13	100	1	75.13	75.13	71.2	71.2
t010122_067	E00-1311-2015, 0.75ug PFOS, Clay,1/22/01 CMC	MeOH	0.75	7.5	74.74	100	1	74.74	74.74		
t010122_072	E00-1311-2016, 7.5ug PFOS, Clay,1/22/01 CMC	MeOH	7.5	7.5	627.98	1000	1	627.98	62.80		
t010122_073	E00-1311-2017, 7.5ug PFOS, Clay,1/22/01 CMC	MeOH	7.5	7.5	682.43	1000	1	682.43	68.24	590.7	59.1
t010122_074	E00-1311-2018, 7.5ug PFOS, Clay,1/22/01 CMC	MeOH	7.5	7.5	461.56	1000	1	461.56	46.16		
t010122_076	E00-1311-2019, 0ug PFOS, Sediment,1/22/01 CMC	MeOH	0	7.5	<25.0	0	1	<25.0	N/A		
t010122_080	E00-1311-2020, 0ug PFOS, Sediment,1/22/01 CMC	MeOH	0	7.5	<25.0	0	1	<25.0	N/A		
t010122_081	E00-1311-2021, 0ug PFOS, Sediment,1/22/01 CMC	MeOH	0	7.5	<25.0	0	1	<25.0	N/A		
t010122_083	E00-1311-2022, 0.75ug PFOS, Sediment,1/22/01 CMC	MeOH	0.75	7.5	109.78	100	1	109.78	109.78		
t010122_084	E00-1311-2023, 0.75ug PFOS, Sediment,1/22/01 CMC	MeOH	0.75	7.5	89.72	100	1	89.72	89.72	96.0	96.0
t010122_088	E00-1311-2024, 0.75ug PFOS, Sediment,1/22/01 CMC	MeOH	0.75	7.5	88.54	100	1	88.54	88.54		
t010122_090	E00-1311-2025, 7.5ug PFOS, Sediment,1/22/01 CMC	MeOH	7.5	7.5	568.24	1000	1	568.24	56.82		
t010122_091	E00-1311-2026, 7.5ug PFOS, Sediment,1/22/01 CMC	MeOH	7.5	7.5	608.75	1000	1	608.75	60.88	600.7	60.1
t010122_092	E00-1311-2027, 7.5ug PFOS, Sediment,1/22/01 CMC	MeOH	7.5	7.5	625.2	1000	1	625.2	62.52		

Note: Solubility of PFOS in soil-less matrix (CaCl2) is less than the matrix with soil. The organic molecules in the soil (bacteria, lipids, proteins) help to keep the PFOS in solution. This is why the recovery of the highest concentration of the soil-less matrix was low (<80%)

cmc 5/29/01

Tier II: "Adsorption Kinetics, One Concentration"

			Calculation of A_{ti} (adsorption % at time t) *to be plotted vs time*										Calculation of distribution Coefficient, K_d			Calculation of K_{oc}		
			t_i	V_o	C_o	m_o			$C^{ads}_{eq}(t_i)$	$m^{ads}_{si}(t_i)$	A_{ti}	AverageA$_{ti}$	m_{soil}	K_d		%oc	K_{oc}	
Run	Data Source File	Sample Description	Time point (hours)	Initial Volume of $CaCl_2$ Test solution in contact with the soil (L)	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_o$	Mass percentage (ug/g) of the substance in the soil sample at the time it was processed (ug), determined under sterile conditions	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time that the analysis was performed (ug/L), analytical result x dilution factor.	Mass of test substance on soil at the time t_i that the analysis was performed (ug), $m^{ads}_{si}(t_i) = m_o - (C^{aq}_{eq}(t_i) \times V_o)$	Adsorption percentage at time point t_i, $A_{ti} = (m^{ads}_{si}(t_i) / m_o) \times 100\%$	Average Adsorption percentage at time point t_i, $A_{ti} = \Sigma^n_{i=1} (m^{ads}_{si}(t_i) / m_o) \times 100\%/n$	Quantity of the soil phase, expressed in dry mass of soil, g	Distribution coefficient (L/g), $K_d = (A_{ti} / (100-A_{ti})) \times (V_o / m_{soil})$	average	Percentage of organic carbon in the soil sample (g/g)	Organic carbon normalized adsorption coefficient (L/g), $K_{oc} = K_d \times (100 / \%oc)$	Average Organic Carbon Adsorption Coefficient (at equilibrium), %
H010222	HILL0045.D	1311-4007-S1	0	0.0125	500.0	6.25	51.2	10	512.31671	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0046.D	1311-4008-S1	0	0.0125	500.0	6.25	55.2	10	551.79408	N/A	N/A	N/A	None	N/A		N/A	N/A	
H010222	HILL0051.D	1311-4009-S1	0	0.0125	500.0	6.25	86.0	10	860.1895	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0053.D	1311-4010-S1	2	0.0125	500.0	6.25	52.8	10	527.68576	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0054.D	1311-4011-S1	2	0.0125	500.0	6.25	52.4	10	524.20684	N/A	N/A	N/A	None	N/A		N/A	N/A	
H010222	HILL0055.D	1311-4012-S1	2	0.0125	500.0	6.25	50.9	10	508.90006	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0057.D	1311-4013-S1	4	0.0125	500.0	6.25	51.1	10	511.32918	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0058.D	1311-4014-S1	4	0.0125	500.0	6.25	52.4	10	523.53991	N/A	N/A	N/A	None	N/A		N/A	N/A	
H010222	HILL0059.D	1311-4015-S1	4	0.0125	500.0	6.25	52.6	10	525.56529	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0065.D	1311-4016-S1	8	0.0125	500.0	6.25	51.9	10	518.62455	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0066.D	1311-4017-S1	8	0.0125	500.0	6.25	50.2	10	501.60536	N/A	N/A	N/A	None	N/A		N/A	N/A	
H010222	HILL0067.D	1311-4018-S1	8	0.0125	500.0	6.25	51.4	10	514.18988	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0069.D	1311-4019-S1	16	0.0125	500.0	6.25	49.0	10	490.01757	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0070.D	1311-4020-S1	16	0.0125	500.0	6.25	50.7	10	507.11023	N/A	N/A	N/A	None	N/A		N/A	N/A	
H010222	HILL0071.D	1311-4021-S1	16	0.0125	500.0	6.25	50.2	10	502.12373	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0073.D	1311-4022-S1	24	0.0125	500.0	6.25	55.8	10	557.78725	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0074.D	1311-4023-S1	24	0.0125	500.0	6.25	49.3	10	492.73867	N/A	N/A	N/A	None	N/A		N/A	N/A	
H010222	HILL0079.D	1311-4024-S1	24	0.0125	500.0	6.25	52.2	10	521.86832	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0081.D	1311-4025-S1	36	0.0125	500.0	6.25	52.0	10	519.77988	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0082.D	1311-4026-S1	36	0.0125	500.0	6.25	49.7	10	496.81929	N/A	N/A	N/A	None	N/A		N/A	N/A	
H010222	HILL0083.D	1311-4027-S1	36	0.0125	500.0	6.25	52.2	10	522.22917	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0085.D	1311-4028-S1	48	0.0125	500.0	6.25	50.5	10	505.05482	N/A	N/A		None	N/A		N/A	N/A	
H010222	HILL0086.D	1311-4029-S1	48	0.0125	500.0	6.25	53.4	10	534.39476	N/A	N/A	N/A	None	N/A		N/A	N/A	
H010222	HILL0087.D	1311-4030-S1	48	0.0125	500.0	6.25	51.0	10	509.70915	N/A	N/A		None	N/A		N/A	N/A	

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			Calculation of A_{ti} (adsorption % at time t) *to be plotted vs time*										Calculation of distribution Coefficient, K_d			Calculation of K_{oc}		
			t_i	V_o	C_o	m_o			$C^{ads}_{aq}(t_i)$	$m^{ads}_{ti}(t_i)$	A_{ti}	$AverageA_{ti}$	m_{soil}	K_d		%oc	K_{oc}	
Run	Data Source File	Sample Description	Time point (hours)	Initial Volume of CaCl2 Test solution in contact with the soil (L)	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_o$	[redacted]	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor	Mass of test substance on soil at the time t, that the analysis was performed (ug), $m^{ads}_{ti}(t_i) = m_o - (C^{ads}_{aq}(t_i) \times V_o)$	Adsorption percentage at time point t_i, $A_{ti} = (m^{ads}_{ti}(t_i) / m_o) \times 100\%$	Average Adsorption percentage at time point t_i, $A_{ti} = \Sigma^n_{i=1}(m^{ads}_{ti}(t_i) / m_o) \times 100\%/n$	Quantity of the soil phase, expressed in dry mass of soil, g	Distribution coefficient (L/g), $K_d = (A_{ti} / (100-A_{ti})) \times (V_o / m_{soil})$	average	Percentage of organic carbon in the soil sample (g/g)	Organic carbon normalized adsorption coefficient (L/g), $K_{oc} = K_d \times (100/\%oc)$	Average Organic Carbon Adsorption Coefficient (at equilibrium), %
H010222	HILL0101.D	1311-4037-S1	0	0.0125	500.0	6.25	36.6	10	365.77631	1.677796125	26.84474		2.4919	0.001840742		2.60%	7.0797782	
H010222	HILL0102.D	1311-4038-S1	0	0.0125	500.0	6.25	33.0	10	330.16608	2.122924	33.96678	34.36	2.4894	0.002582898		2.60%	9.9342243	
H010222	HILL0107.D	1311-4039-S1	0	0.0125	500.0	6.25	28.9	10	288.72178	2.64097775	42.25564		2.5035	0.00365374		2.60%	14.052845	
H010222	HILL0109.D	1311-4040-S1	2	0.0125	500.0	6.25	11.7	10	117.05089	4.786863875	76.58982		2.4842	0.016462273		2.60%	63.316435	
H010222	HILL0110.D	1311-4041-S1	2	0.0125	500.0	6.25	10.4	10	104.31161	4.946104875	79.13768	77.72	2.4873	0.019063494		2.60%	73.321131	
H010222	HILL0111.D	1311-4042-S1	2	0.0125	500.0	6.25	11.3	10	112.87498	4.83906275	77.425		2.5199	0.017012975		2.60%	65.434519	
H010222	HILL0113.D	1311-4043-S1	4	0.0125	500.0	6.25	11.5	10	114.51078	4.81861525	77.09784		2.4914	0.016890108		2.60%	64.961953	
H010222	HILL0114.D	1311-4044-S1	4	0.0125	500.0	6.25	9.9	10	98.86349	5.014206375	80.2273	79.00	2.4945	0.020332124		2.60%	78.200479	
H010222	HILL0115.D	1311-4045-S1	4	0.0125	500.0	6.25	10.2	10	101.64917	4.979385375	79.67017		2.4971	0.019617152		2.60%	75.450586	
H010222	HILL0121.D	1311-4046-S1	8	0.0125	500.0	6.25	13.6	10	135.62296	4.554713	72.87541		2.4871	0.013503133		2.60%	51.935128	
H010222	HILL0122.D	1311-4047-S1	8	0.0125	500.0	6.25	11.2	10	111.91357	4.851080375	77.61729	74.86	2.4893	0.017413196		2.60%	66.97383	
H010222	HILL0123.D	1311-4048-S1	8	0.0125	500.0	6.25	12.9	10	129.49094	4.63136325	74.10181		2.4899	0.014364402		2.60%	55.247701	
H010222	HILL0125.D	1311-4049-S1	16	0.0125	500.0	6.25	9.5	10	94.80544	5.064932	81.03891		2.4967	0.02139804		2.60%	82.300155	
H010222	HILL0126.D	1311-4050-S1	16	0.0125	500.0	6.25	8.7	10	86.89825	5.163771875	82.62035	80.98	2.4909	0.023856115		2.60%	91.75429	
H010222	HILL0127.D	1311-4051-S1	16	0.0125	500.0	6.25	10.4	10	103.55901	4.955512375	79.2882		2.4866	0.019243973		2.60%	74.015282	
R010222	RUSH0037.D	1311-4052-S1	24	0.0125	500.0	6.25	11.3	10	112.90206	4.83872425	77.41959		2.4936	0.017187085		2.60%	66.104172	
R010222	RUSH0038.D	1311-4053-S1	24	0.0125	500.0	6.25	10.1	10	100.99263	4.987592125	79.80147	78.17	2.5087	0.019685775		2.60%	75.71452	
R010222	RUSH0039.D	1311-4054-S1	24	0.0125	500.0	6.25	11.3	10	113.48309	4.831461375	77.30338		2.4894	0.017102227		2.60%	65.777797	
R010222	RUSH0041.D	1311-4055-S1	36	0.0125	500.0	6.25	8.9	10	89.29487	5.133814125	82.14103		2.5097	0.022908245		2.60%	88.108635	
R010222	RUSH0042.D	1311-4056-S1	36	0.0125	500.0	6.25	8.6	10	87.70241	5.153719875	82.45952	82.30	2.5090	0.023421172		2.60%	90.08143	
R010222	RUSH0043.D	311-4057-S1 (Point thrown out*	36	0.0125	500.0	6.25	~~22.4~~	~~10~~	~~223.96022~~	~~3.45049725~~	~~55.20796~~		~~2.4914~~	~~0.00618397~~	*Q-test outlier	~~2.60%~~	~~23.784498~~	
R010222	RUSH0045.D	1311-4058-S1	48	0.0125	500.0	6.25	11.3	10	113.11606	4.83604925	77.37679		2.4857	0.017199576		2.60%	66.152214	
R010222	RUSH0046.D	1311-4059-S1	48	0.0125	500.0	6.25	10.4	10	104.46575	4.944178125	79.10685	78.51	2.5226	0.018761683	0.018293737	2.60%	72.160319	70.36053
R010222	RUSH0051.D	1311-4060-S1	48	0.0125	500.0	6.25	10.5	10	104.74724	4.9406595	79.05055		2.4930	0.018919953		2.60%	72.769051	

			Calculation of A_{ti} (adsorption % at time t) *to be plotted vs time*									Calculation of distribution Coefficient, K_d			Calculation of K_{oc}		
			t_i	V_o	C_o	m_o			$C^{ads}_{aq}(t_i)$	$m^{ads}_{si}(t_i)$	A_{ti}	AverageA$_{ti}$	m_{soil}	K_d		%oc	K_{oc}	
			Time point (hours)	Initial Volume of $CaCl_2$ Test solution in contact with the soil (L)	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_o$	Mass corresponding to the adsorption in the glassware surface in time t (not to be included in the calculation of the adsorption percentage at a specific time)	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analytes was performed (ug/L), analytical result x dilution factor.	Mass of test substance on soil at the time t, that the analytes was performed (ug), $m^{ads}_{si}(t_i) = m_o - (C^{ads}_{aq}(t_i) \times V_o)$	Adsorption percentage at time point t_i, $A_{ti} = (m^{ads}_{si}(t_i) / m_o) \times 100\%$	Average Adsorption percentage at time point t_i, $A_{ti} = \Sigma_{i=1}(m^{ads}_{si}(t_i) / m_o) \times 100\%)/n$	Quantity of the soil phase, expressed in dry mass of soil, g	Distribution coefficient (L/g), $K_d = (A_{ti} / (100-A_{ti})) \times (V_o / m_{soil})$	average	Percentage of organic carbon in the soil sample (g/g)	Organic carbon normalized adsorption coefficient (L/g), $K_{oc} = K_d \times (100/\%oc)$	Average Organic Carbon Adsorption Coefficient (at equilibrium), %
Run	Data Source File	Sample Description																
R010222	RUSH0065.D	1311-4067-S1	0	0.0125	500.0	6.25	39.3	10	393.4128	1.33234	21.31744		2.5058	0.001351513		2.60%	5.1981263	
R010222	RUSH0066.D	1311-4068-S1	0	0.0125	500.0	6.25	40.8	10	408.06493	1.149188375	18.38701	28.91	2.4904	0.001130818		2.60%	4.3493013	
R010222	RUSH0067.D	1311-4069-S1	0	0.0125	500.0	6.25	26.5	10	264.88843	2.938894625	47.02231		2.5286	0.00438774		2.60%	16.875923	
R010222	RUSH0069.D	1311-4070-S1	2	0.0125	500.0	6.25	19.3	10	192.79449	3.840068875	61.4411		2.4966	0.007978026		2.60%	30.684714	
R010222	RUSH0070.D	1311-4071-S1	2	0.0125	500.0	6.25	22.2	10	222.39068	3.4701165	55.52186	58.05	2.5099	0.00621686		2.60%	23.910998	
R010222	RUSH0071.D	1311-4072-S1	2	0.0125	500.0	6.25	21.4	10	213.99507	3.575061625	57.20099		2.5022	0.006676637		2.60%	25.679372	
R010222	RUSH0073.D	1311-4073-S1	4	0.0125	500.0	6.25	20.1	10	200.94518	3.73818525	59.81096		2.4999	0.007441502		2.60%	28.621161	
R010222	RUSH0074.D	1311-4074-S1	4	0.0125	500.0	6.25	20.6	10	206.36687	3.670414125	58.72663	59.83	2.4878	0.007149236		2.60%	27.497061	
R010222	RUSH0079.D	1311-4075-S1	4	0.0125	500.0	6.25	19.5	10	195.19751	3.810031125	60.9605		2.5214	0.007741275		2.60%	29.774135	
R010222	RUSH0081.D	1311-4076-S1	8	0.0125	500.0	6.25	21.9	10	219.44298	3.50696275	56.1114		2.4999	0.006392737		2.60%	24.587449	
R010222	RUSH0082.D	1311-4077-S1	8	0.0125	500.0	6.25	21.3	10	213.05622	3.58679725	57.38876	56.74	2.4952	0.006746946		2.60%	25.949793	
R010222	RUSH0083.D	1311-4078-S1	8	0.0125	500.0	6.25	21.6	10	216.3487	3.54564125	56.73026		2.4921	0.0065762		2.60%	25.293078	
R010222	RUSH0085.D	1311-4079-S1	16	0.0125	500.0	6.25	18.1	10	180.50238	3.99372025	63.89952		2.4932	0.008874371		2.60%	34.132197	
R010222	RUSH0086.D	1311-4080-S1	16	0.0125	500.0	6.25	18.1	10	180.82727	3.989659125	63.83455	63.87	2.5087	0.008794743		2.60%	33.825933	
R010222	RUSH0087.D	11-4081-S1 (Point Thrown out*	16	0.0125	500.0	6.25	~~31.4~~	~~10~~	~~314.05447~~	~~2.324319125~~	~~37.18911~~		~~2.5136~~	~~0.002944385~~	**Q-test outlier	~~2.60%~~	~~11.324558~~	
R010222	RUSH0093.D	1311-4082-S1	24	0.0125	500.0	6.25	19.9	10	199.45437	3.756820375	60.10913		2.5006	0.007532387		2.60%	28.970721	
R010222	RUSH0094.D	1311-4083-S1	24	0.0125	500.0	6.25	17.8	10	177.74809	4.028148875	64.45038	62.92	2.5269	0.008968349		2.60%	34.493651	
R010222	RUSH0095.D	1311-4084-S1	24	0.0125	500.0	6.25	17.9	10	179.00609	4.012423875	64.19878		2.5061	0.008944181		2.60%	34.400698	
R010222	RUSH0097.D	1311-4085-S1	36	0.0125	500.0	6.25	15.5	10	155.09854	4.31126825	68.98029		2.5242	0.011012187		2.60%	42.354565	
R010222	RUSH0098.D	1311-4086-S1	36	0.0125	500.0	6.25	16.3	10	162.77563	4.215304625	67.44487	68.21	2.4981	0.010366443		2.60%	39.870934	
R010222	RUSH0099.D	11-4087-S1 (Point Thrown out**	36	0.0125	500.0	6.25	~~33.7~~	~~10~~	~~336.73614~~	~~2.04079825~~	~~32.65277~~		~~2.4989~~	~~0.002425278~~	***Q-test outlier	~~2.60%~~	~~9.327991~~	
R010222	RUSH0101.D	1311-4088-S1	48	0.0125	500.0	6.25	17.1	10	171.14436	4.1106955	65.77113		2.4987	0.00961255		2.60%	36.971345	
R010222	RUSH0102.D	1311-4089-S1	48	0.0125	500.0	6.25	17.1	10	170.50029	4.118746375	65.89994	66.01	2.5038	0.009648067	0.009718499	2.60%	37.107948	37.37884
R010222	RUSH0107.D	1311-4090-S1	48	0.0125	500.0	6.25	16.8	10	168.24527	4.146934125	66.35095		2.4910	0.00989488		2.60%	38.057232	

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			Calculation of A_s (adsorption % at time t) *to be plotted vs time*									Calculation of distribution Coefficient, K_d			Calculation of K_{oc}		
			t_i	V_o	C_o	m_o			$C^{ads}_{aq}(t_i)$	$m^{ads}_s(t_i)$	A_s	AverageA$_s$	m_{soil}	K_d		%oc	K_{oc}	
Run	Data Source File	Sample Description	Time point (hours)	Initial Volume of $CaCl_2$ Test solution in contact with the soil (L_i)	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_o$	Aged soil concentration of the substance in the soil (average amount of the substance in the soil at each time point (ug/g), determined in this study)	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor.	Mass of test substance on soil at the time t, that the analysis was performed (ug), $m^{ads}_s(t_i) = m_o - (C^{ads}_{aq}(t_i) \times V_o)$	Absorption percentage at time point t_i, $A_s = (m^{ads}_s(t_i) / m_o) \times 100\%$	Average Adsorption percentage at time point t_i, $A_s = \Sigma^{i}_{i=1}(m^{ads}_s(t_i) / m_o) \times 100\%)/i$	Quantity of the soil phase, expressed in dry mass of soil, g	Distribution coefficient (L/g), $K_d = (A_s / (100-A_s)) \times (V_o / m_{soil})$	Average	Percentage of organic carbon in the soil sample (g/g)	Organic carbon normalized adsorption coefficient (L/g), $K_{oc} = K_d \times (100/\%oc)$	Average Organic Carbon Adsorption Coefficient (at equilibrium), %
R010222	RUSH0121.D	1311-4097-S1	0	0.0125	500.0	6.25	20.6	10	206.27486	3.67156425	58.74503		2.5002	0.007119182		2.80%	25.425649	
R010222	RUSH0122.D	1311-4098-S1	0	0.0125	500.0	6.25	21.2	10	211.88812	3.6013985	57.62238	51.25	2.4849	0.006839993		2.80%	24.428546	
R010222	RUSH0123.D	1311-4099-S1	0	0.0125	500.0	6.25	31.3	10	313.08584	2.336427	37.38283		2.4887	0.002998584		2.80%	10.709229	
R010222	RUSH0125.D	1311-4100-S1	2	0.0125	500.0	6.25	14.8	10	147.54934	4.40563325	70.49013		2.4927	0.011978462		2.80%	42.780221	
R010222	RUSH0126.D	1311-4101-S1	2	0.0125	500.0	6.25	15.5	10	155.3989	4.30751375	68.92022	70.44	2.4999	0.011088073		2.80%	39.600262	
R010222	RUSH0127.D	1311-4102-S1	2	0.0125	500.0	6.25	14.0	10	140.39852	4.4950185	71.9203		2.4857	0.01288013		2.80%	46.000464	
H010309	HILL0036.D	E00-1311-4103-S1	4	0.0125	500.0	6.25	8.012285	10	80.12285	5.248464375	83.97543		2.4917	0.026289366		2.80%	93.890593	
H010309	HILL0037.D	E00-1311-4104-S1	4	0.0125	500.0	6.25	6.1696	10	61.696	5.4788	87.6608	84.96	2.4963	0.035573915		2.80%	127.0497	
H010309	HILL0038.D	E00-1311-4105-S1	4	0.0125	500.0	6.25	8.375534	10	83.75534	5.20305825	83.24893		2.5065	0.024784404		2.80%	88.515727	
H010309	HILL0040.D	E00-1311-4106-S1	8	0.0125	500.0	6.25	11.534113	10	115.34113	4.808235875	76.93177		2.4875	0.016758628		2.80%	59.852245	
H010309	HILL0041.D	E00-1311-4107-S1	8	0.0125	500.0	6.25	11.512441	10	115.12441	4.810944875	76.97512	77.44	2.4927	0.01676459		2.80%	59.873537	
H010309	HILL0042.D	E00-1311-4108-S1	8	0.0125	500.0	6.25	10.789985	10	107.89985	4.901251875	78.42003		2.4906	0.018238209		2.80%	65.136462	
H010309	HILL0044.D	E00-1311-4109-S1	16	0.0125	500.0	6.25	5.573715	10	55.73715	5.553285625	88.85257		2.5083	0.039721512		2.80%	141.86254	
H010309	HILL0045.D	E00-1311-4110-S1	16	0.0125	500.0	6.25	5.956354	10	59.56354	5.50545575	88.08729	88.67	2.5139	0.036767557		2.80%	131.3127	
H010309	HILL0050.D	E00-1311-4111-S1	16	0.0125	500.0	6.25	5.468121	10	54.68121	5.566484875	89.06376		2.4926	0.040840432		2.80%	145.85869	
H010309	HILL0052.D	E00-1311-4112-S1	24	0.0125	500.0	6.25	5.648499	10	56.48499	5.543937625	88.703		2.4966	0.039313011		2.80%	140.40361	
H010309	HILL0053.D	E00-1311-4113-S1	24	0.0125	500.0	6.25	5.788465	10	57.88465	5.526441875	88.42307	87.64	2.5180	0.037918345		2.80%	135.41552	
H010309	HILL0054.D	E00-1311-4114-S1	24	0.0125	500.0	6.25	7.103971	10	71.03971	5.362003625	85.79206		2.4911	0.030299451		2.80%	108.21233	
H010309	HILL0056.D	E00-1311-4115-S1	36	0.0125	500.0	6.25	5.890369	10	58.90369	5.513703875	88.21926		2.5065	0.037345066		2.80%	133.37523	
H010309	HILL0057.D	E00-1311-4116-S1	36	0.0125	500.0	6.25	6.081276	10	60.81276	5.4898405	87.83745	88.34	2.5096	0.035971662		2.80%	128.47022	
H010309	HILL0058.D	E00-1311-4117-S1	36	0.0125	500.0	6.25	5.516164	10	55.16164	5.5604795	88.96767		2.4936	0.040424838		2.80%	144.37442	
H010309	HILL0064.D	E00-1311-4118-S1	48	0.0125	500.0	6.25	6.353969	10	63.53969	5.455753875	87.29206		2.5084	0.034230472		2.80%	122.25169	
H010309	HILL0065.D	E00-1311-4119-S1	48	0.0125	500.0	6.25	6.139234	10	61.39234	5.48259575	87.72153	87.63	2.5358	0.03521738	0.035302618	2.80%	125.77636	126.0808
H010309	HILL0066.D	E00-1311-4120-S1	48	0.0125	500.0	6.25	6.068331	10	60.68331	5.491458625	87.86334		2.4820	0.036460001		2.80%	130.21429	

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			Calculation of A_{ti} (adsorption % at time t) *to be plotted vs time*										Calculation of distribution Coefficient, K_d			Calculation of K_{oc}		
			t_i	V_o	C_o	m_o			$C^{ads}_{aq}(t_i)$	$m^{ads}_s(t_i)$	A_{ti}	AverageA$_{ti}$	m_{soil}	K_d		%oc	K_{oc}	
			Time point (hours)	Initial Volume of $CaCl_2$ Test solution in contact with the soil (L)	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_o$	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor.	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor.	Mass of test substance on soil at the time t, that the analysis was performed (ug), $m^{ads}_s(t_i) = m_o - (C^{ads}_{aq}(t_i) \times V_o)$	Adsorption percentage at time point t_i, $A_{ti} = (m^{ads}_s(t_i) / m_o) \times 100\%$	Average Adsorption percentage at time point t_i, $A_{ti} = \Sigma^n_{i=1}(m^{ads}_s(t_i) / m_o) \times 100\%)/n$	Quantity of the soil phase, expressed in dry mass of soil, g	Distribution coefficient (L/g), $K_d = (A_{ti} / (100-A_{ti})) \times (V_o / m_{soil})$	Average	Percentage of organic carbon in the soil sample (g/g)	Organic carbon normalized adsorption coefficient (L/g), $K_{oc} = K_d \times (100/\%oc)$	Average Organic Carbon Adsorption Coefficient (at equilibrium), %
Run	Data Source File	Sample Description																
R010314	RUSH0039.D	1311-4127-S1	0	0.0125	500.0	6.25	37.0	10	369.86485	1.626689375	26.02703		2.5039	0.001756486		1.30%	13.511428	
R010314	~~RUSH0040.D~~	311-4128-S1 point thrown out***	0	0.0125	500.0	6.25	~~156.8~~	10	~~1568.03908~~	~~-13.2504885~~	~~-213.8078~~	35.71	2.526	~~-0.003370598~~	****Q-Test outlier	1.30%	~~-25.927675~~	
R010314	RUSH0045.D	1311-4129-S1	0	0.0125	500.0	6.25	27.3	10	273.04294	2.83696325	45.39141		2.5013	0.004153909		1.30%	31.953146	
R010314	RUSH0047.D	1311-4130-S1	2	0.0125	500.0	6.25	24.3	10	243.429	3.2071375	51.3142		2.5056	0.005258157		1.30%	40.447359	
R010314	RUSH0048.D	1311-4131-S1	2	0.0125	500.0	6.25	21.9	10	219.25888	3.509264	56.14822	52.51	2.5166	0.006359818		1.30%	48.921674	
R010314	RUSH0049.D	1311-4132-S1	2	0.0125	500.0	6.25	25.0	10	249.69091	3.128863625	50.06182		2.5005	0.005011377		1.30%	38.549051	
R010314	RUSH0051.D	1311-4133-S1	4	0.0125	500.0	6.25	22.5	10	224.8773	3.43903375	55.02454		2.5036	0.006108378		1.30%	46.98752	
R010314	RUSH0052.D	1311-4134-S1	4	0.0125	500.0	6.25	23.3	10	233.20361	3.334954875	53.35928	53.63	2.5179	0.00567958		1.30%	43.689076	
R010314	RUSH0053.D	1311-4135-S1	4	0.0125	500.0	6.25	23.7	10	237.39843	3.282519625	52.52031		2.4991	0.005532811		1.30%	42.560087	
R010314	~~RUSH0059.D~~	11-4136-S1 Point thrown out***	8	0.0125	500.0	6.25	~~< 2.5~~	10	N/A	N/A	N/A		2.5063	N/A	****No internal standard	1.30%	N/A	
R010314	RUSH0060.D	1311-4137-S1	8	0.0125	500.0	6.25	22.8	10	228.30606	3.39617425	54.33879	53.96	2.503	0.005943081		1.30%	45.71601	
R010314	RUSH0061.D	1311-4138-S1	8	0.0125	500.0	6.25	23.2	10	232.11374	3.34857825	53.57725		2.5161	0.005733657		1.30%	44.105053	
R010314	RUSH0063.D	1311-4139-S1	16	0.0125	500.0	6.25	20.7	10	206.68992	3.666376	58.66202		2.5031	0.007086626		1.30%	54.512507	
R010314	RUSH0064.D	1311-4140-S1	16	0.0125	500.0	6.25	20.4	10	203.85975	3.701753125	59.22805	58.65	2.502	0.007257527		1.30%	55.827131	
R010314	RUSH0065.D	1311-4141-S1	16	0.0125	500.0	6.25	21.0	10	209.76708	3.6279115	58.04658		2.5051	0.006903897		1.30%	53.106898	
R010314	RUSH0067.D	1311-4142-S1	24	0.0125	500.0	6.25	20.4	10	204.22624	3.697172	59.15475		2.5093	0.007214488		1.30%	55.496063	
R010314	RUSH0068.D	1311-4143-S1	24	0.0125	500.0	6.25	21.3	10	212.60569	3.592428875	57.47886	58.41	2.5228	0.006697774		1.30%	51.521337	
R010314	RUSH0073.D	1311-4144-S1	24	0.0125	500.0	6.25	20.7	10	207.00305	3.662461875	58.59939		2.4993	0.007079099		1.30%	54.454607	
R010314	RUSH0075.D	1311-4145-S1	36	0.0125	500.0	6.25	19.5	10	194.89952	3.813756	61.0201		2.5021	0.007820553		1.30%	60.158101	
R010314	RUSH0076.D	1311-4146-S1	36	0.0125	500.0	6.25	19.2	10	192.10652	3.8486685	61.5787	61.54	2.5007	0.00801137		1.30%	61.625925	
R010314	RUSH0077.D	1311-4147-S1	36	0.0125	500.0	6.25	19.0	10	189.95595	3.875550625	62.00881		2.5137	0.008116468		1.30%	62.434367	
R010314	RUSH0079.D	1311-4148-S1	48	0.0125	500.0	6.25	20.1	10	201.23399	3.734575125	59.7532		2.5048	0.007409123		1.30%	56.993254	
R010314	RUSH0080.D	1311-4149-S1	48	0.0125	500.0	6.25	20.0	10	200.41683	3.744789625	59.91663	59.77	2.5018	0.007466625	0.007417283	1.30%	57.450961	57.05602
R010314	RUSH0081.D	1311-4150-S1	48	0.0125	500.0	6.25	20.2	10	201.72713	3.728410875	59.65457		2.5064	0.007374101		1.30%	56.723853	

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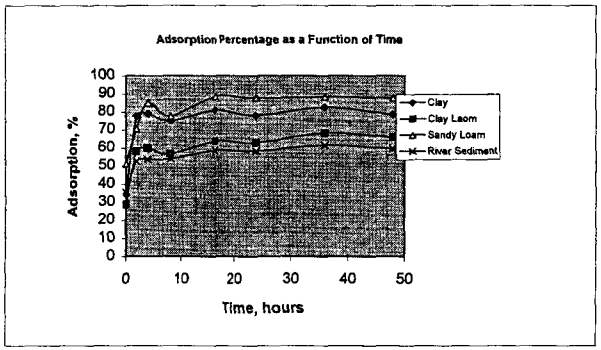
Study E00-1311 | Adsorption Kinetics | PFOS Adsorb/Desorb

			Calculation of A_s (adsorption % at time t) *to be plotted vs time*										Calculation of distribution Coefficient, K_d			Calculation of K_{oc}		
			t_i	V_o	C_o	m_o			$C^{sds}_{aq}(t_i)$	$m^{sds}_s(t_i)$	A_s	AverageA$_s$	m_{soil}	K_d		%oc	K_{oc}	
			Time point (hours)	Initial Volume of $CaCl_2$ Test solution in contact with the soil (L)	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_o$	Mass corrected (ug) of the substance in the solution at the time point t_i (ug/L) determined analytically	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analyte was performed (ug/L), analytical result x dilution factor.	Mass of test substance on soil at the time t, that the analyte was performed (ug), $m^{sds}_s(t_i) = m_o - (C^{sds}_{aq}(t_i) \times V_o)$	Adsorption percentage at time point t_i, $A_s = (m^{sds}_s(t_i) / m_o) \times 100\%$	Average Adsorption percentage at time point t_i, $A_s = \Sigma^n_{i=1}(m^{sds}_s(t_i) / m_o) \times 100\%)/n$	Quantity of the soil phase, expressed in dry mass of soil, g	Distribution coefficient (L/g), $K_d = (A_s / (100-A_s)) \times (V_o / m_{soil})$	Average	Percentage of organic carbon in the soil sample (g/g)	Organic carbon normalized adsorption coefficient (L/g), $K_{oc} = K_d \times (100/ \%oc)$	Average Organic Carbon Adsorption Coefficient (at equilibrium), %
Run	Data Source File	Sample Description																
H010404ext	HILL0039.D	1311-4157-S1	0	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.4857	<0.120		N/A	N/A	
H010404ext	HILL0040.D	1311-4158-S1	0	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%	> 96%	2.4947	<0.120		N/A	N/A	
H010404ext	HILL0045.D	1311-4159-S1	0	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.4959	<0.120		N/A	N/A	
H010404ext	HILL0047.D	1311-4160-S1	2	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.5021	<0.120		N/A	N/A	
H010404ext	HILL0048.D	1311-4161-S1	2	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%	> 96%	2.5007	<0.120		N/A	N/A	
H010404ext	HILL0049.D	1311-4162-S1	2	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.5137	<0.120		N/A	N/A	
H010404ext	HILL0051.D	1311-4163-S1	4	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.4773	<0.120		N/A	N/A	
H010404ext	HILL0052.D	1311-4164-S1	4	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%	> 96%	2.5149	<0.120		N/A	N/A	
H010404ext	HILL0053.D	1311-4165-S1	4	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.4956	<0.120		N/A	N/A	
H010404ext	HILL0059.D	1311-4166-S1	8	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.495	<0.120		N/A	N/A	
H010404ext	HILL0060.D	1311-4167-S1	8	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%	> 96%	2.4831	<0.120		N/A	N/A	
H010404ext	HILL0061.D	1311-4168-S1	8	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.4775	<0.120		N/A	N/A	
H010404ext	HILL0063.D	1311-4169-S1	16	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.5094	<0.120		N/A	N/A	
H010404ext	HILL0064.D	1311-4170-S1	16	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%	> 96%	2.5171	<0.120		N/A	N/A	
H010404ext	HILL0065.D	1311-4171-S1	16	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.5166	<0.120		N/A	N/A	
H010404ext	HILL0067.D	1311-4172-S1	24	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.5007	<0.120		N/A	N/A	
H010404ext	HILL0068.D	1311-4173-S1	24	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%	> 96%	2.502	<0.120		N/A	N/A	
H010404ext	HILL0073.D	1311-4174-S1	24	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.4899	<0.120		N/A	N/A	
H010404ext	HILL0075.D	1311-4175-S1	36	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.4893	<0.120		N/A	N/A	
H010404ext	HILL0076.D	1311-4176-S1	36	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%	> 96%	2.5139	<0.120		N/A	N/A	
H010404ext	HILL0077.D	1311-4177-S1	36	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.4771	<0.120		N/A	N/A	
H010404ext	HILL0079.D	1311-4178-S1	48	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.5021	<0.120		N/A	N/A	
H010404ext	HILL0080.D	1311-4179-S1	48	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%	> 96%	2.4837	<0.120	<0.120	N/A	N/A	N/A
H010404ext	HILL0081.D	1311-4180-S1	48	0.0125	500.0	6.25	<10.0	2	< 20	>6.0	> 96%		2.5205	<0.120		N/A	N/A	

		Calculation of A_n (adsorption % at time t) *to be plotted vs time*									Calculation of distribution Coefficient, K_d			Calculation of K_{oc}	
		t_i	V_o	C_o	m_o			$C^{aqs}_{aq}(t_i)$	$m^{aqs}_{s}(t_i)$	A_n	AverageA_n	m_{soil}	K_d		%oc	K_{oc}
Run	Data Source File Sample Description	Time point (hours)	Initial Volume of $CaCl_2$ Test solution in contact with the soil (L)	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_o$	Mass recovered from the aqueous phase at the time t that the analysis was performed (ug) - experimental data	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor.	Mass of test substance on soil at the time t, that the analysis was performed (ug), $m^{aqs}_{s}(t_i) = m_o - (C^{aqs}_{aq}(t_i) \times V_o)$	Adsorption percentage at time point t_i, $A_n = (m^{aqs}_{s}(t_i) / m_o) \times 100\%$	Average Adsorption percentage at time point t_i, $A_n = \Sigma^{n}_{i=1}(m^{aqs}_{s}(t_i) / m_o) \times 100\%)/n$	Quantity of the soil phase, expressed in dry mass of soil, g	Distribution coefficient (L/g), $K_d = (A_n / (100-A_n)) \times (V_o / m_{soil})$	average	Percentage of organic carbon in the soil sample (g/g)	Organic carbon normalized adsorption coefficient (L/g), $K_{oc} = K_d \times (100/\%oc)$

Average Organic Carbon Adsorption Coefficient (at equilibrium), %



Tier III: "Desorption Kinetics, One Concentration"

			Calculation of A_t (adsorption % at time t) *to be plotted vs time*									
			t_i	V_o	C_o	m_o			$C^{sas}_{aq}(t_i)$	$m^{sas}_s(t_i)$	A_{ti}
Run	Data Source File	Sample Description	Time point (hours)	Initial Volume of the test solution in contact with the soil (L)	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_o$	Mass (corrected for the substance in the aqueous phase at the time t that the analysis was performed, and for the sample dilution factor) of test substance on soil at the time t that the analysis was performed (ug)	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor	Mass of test substance on soil at the time t that the analysis was performed (ug), $m^{sas}_s(t) = m_o - (C^{sas}_{aq}(t) \times V_o)$	Adsorption percentage at time point t, $A_t = (m^{sas}_s(t_i) / m_o) \times 100\%$
H010309	HILL0071.D	E00-1311-4028-S2	2	0.0125	500.0	6.25	50.505482	10	505.05482	N/A	N/A
H010309	HILL0106.D	E00-1311-4028-S3	4	0.0125	500.0	6.25	50.505482	10	505.05482	N/A	N/A
H010309	HILL0136.D	E00-1311-4028-S4	6	0.0125	500.0	6.25	50.505482	10	505.05482	N/A	N/A
R010309	RUSH0057.D	1311-4028-S5	8	0.0125	500.0	6.25	50.505482	10	505.05482	N/A	N/A
R010309	RUSH0093.D	1311-4028-S6	24	0.0125	500.0	6.25	50.505482	10	505.05482	N/A	N/A
R010309	RUSH0135.D	1311-4028-S7	32	0.0125	500.0	6.25	50.505482	10	505.05482	N/A	N/A
H010311	HILL0058.D	E00-1311-4028-S8	48	0.0125	500.0	6.25	50.505482	10	505.05482	N/A	N/A
H010309	HILL0072.D	E00-1311-4030-S2	2	0.0125	500.0	6.25	50.970915	10	509.70915	N/A	N/A
H010309	HILL0107.D	E00-1311-4030-S3	4	0.0125	500.0	6.25	50.970915	10	509.70915	N/A	N/A
H010309	HILL0137.D	E00-1311-4030-S4	6	0.0125	500.0	6.25	50.970915	10	509.70915	N/A	N/A
R010309	RUSH0058.D	1311-4030-S5	8	0.0125	500.0	6.25	50.970915	10	509.70915	N/A	N/A
R010309	RUSH0094.D	1311-4030-S6	24	0.0125	500.0	6.25	50.970915	10	509.70915	N/A	N/A
R010309	RUSH0136.D	1311-4030-S7	32	0.0125	500.0	6.25	50.970915	10	509.70915	N/A	N/A
H010311	HILL0059.D	E00-1311-4030-S8	48	0.0125	500.0	6.25	50.970915	10	509.70915	N/A	N/A
H010309	HILL0080.D	E00-1311-4058-S2	2	0.0125	500.0	6.25	11.311606	10	113.11606	4.8360493	77.37679
H010309	HILL0110.D	E00-1311-4058-S3	4	0.0125	500.0	6.25	11.311606	10	113.11606	4.8360493	77.37679
R010309	RUSH0036.D	1311-4058-S4	6	0.0125	500.0	6.25	11.311606	10	113.11606	4.8360493	77.37679
R010309	RUSH0066.D	1311-4058-S5	8	0.0125	500.0	6.25	11.311606	10	113.11606	4.8360493	77.37679
R010309	RUSH0100.D	1311-4058-S6	24	0.0125	500.0	6.25	11.311606	10	113.11606	4.8360493	77.37679
R010309	RUSH0140.D	1311-4058-S7	32	0.0125	500.0	6.25	11.311606	10	113.11606	4.8360493	77.37679
H010311	HILL0069.D	E00-1311-4058-S8	48	0.0125	500.0	6.25	11.311606	10	113.11606	4.8360493	77.37679
H010309	HILL0081.D	E00-1311-4059-S2	2	0.0125	500.0	6.25	10.446575	10	104.46575	4.9441781	79.10685
H010309	HILL0111.D	E00-1311-4059-S3	4	0.0125	500.0	6.25	10.446575	10	104.46575	4.9441781	79.10685
R010309	RUSH0037.D	1311-4059-S4	6	0.0125	500.0	6.25	10.446575	10	104.46575	4.9441781	79.10685
R010309	RUSH0067.D	1311-4059-S5	8	0.0125	500.0	6.25	10.446575	10	104.46575	4.9441781	79.10685
R010309	RUSH0101.D	1311-4059-S6	24	0.0125	500.0	6.25	10.446575	10	104.46575	4.9441781	79.10685
H010311	HILL0036.D	E00-1311-4059-S7	32	0.0125	500.0	6.25	10.446575	10	104.46575	4.9441781	79.10685
H010311	HILL0070.D	E00-1311-4059-S8	48	0.0125	500.0	6.25	10.446575	10	104.46575	4.9441781	79.10685
H010309	HILL0082.D	E00-1311-4060-S2	2	0.0125	500.0	6.25	10.474724	10	104.74724	4.9406595	79.05055
H010309	HILL0112.D	E00-1311-4060-S3	4	0.0125	500.0	6.25	10.474724	10	104.74724	4.9406595	79.05055
	tube broke	1311-4060-S4	6	0.0125	500.0	6.25	10.474724	10	104.74724	4.9406595	79.05055
R010309	RUSH0068.D	1311-4060-S5	8	0.0125	500.0	6.25	10.474724	10	104.74724	4.9406595	79.05055
R010309	RUSH0106.D	1311-4060-S6	24	0.0125	500.0	6.25	10.474724	10	104.74724	4.9406595	79.05055
H010311	HILL0037.D	E00-1311-4060-S7	32	0.0125	500.0	6.25	10.474724	10	104.74724	4.9406595	79.05055
H010311	HILL0071.D	E00-1311-4060-S8	48	0.0125	500.0	6.25	10.474724	10	104.74724	4.9406595	79.05055

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Tier III: "Desorption Kinetics, One C

			Calculation of D_{ti} (desorption % at time t_i)									
			m_{soil}			$C^{aqs}_{aq}(t_i)$	V_o	$m^{test\ sub}_{aq}(t_i)$	D_{ti}	K_{aqs}		
Run	Data Source File	Sample Description	Quantity of the soil phase, expressed on dry mass of soil, g	Mass concentration of the substance in the aqueous phase at the time t that the analytes was performed (ug/L), analytical result x dilution factor	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analytes was performed (ug/L), analytical result x dilution factor	Initial Volume of the desorb solvent in contact with the soil (L)	Mass of the test substance desorbed from the soil at a time point t_i (ug), $m^{test\ sub}_{aq}(t) = C^{aqs}_{aq}(t) \times V_o$	Desorption percentage at a time point t_i (%), $D_{ti} = (m^{test\ sub}_{aq}(t_i) / m^{test\ sub}_{aq}(eq)) \times 100\%$	Desorption coefficient (L_{aq}/L_{soil}), $K_{aqs} = [m^{test\ sub}_{aq}(eq) / m^{test\ sub}_{aq}(eq)] \times [V_o / m_{soil}]$	Average Desorption percentage (over triplicates) at a time point t_i (%), $D_{ti} = m^{test\ sub}_{aq}(t_i) / m^{test\ sub}_{aq}(eq) \times 100\%$	Average Desorption coefficient (L_{aq}/L_{soil}) at a time point t_i, $K_{aqs} = [m^{test\ sub}_{aq}(eq) / m^{test\ sub}_{aq}(eq)] \times [V_o / m_{soil}]$
H010309	HILL0071.D	E00-1311-4028-S2	N/A	10.540604	2	21.081	0.0125	0.26	N/A	N/A		
H010309	HILL0106.D	E00-1311-4028-S3	N/A	10.390455	2	20.781	0.0125	0.26	N/A	N/A		
H010309	HILL0136.D	E00-1311-4028-S4	N/A	12.302809	2	24.606	0.0125	0.31	N/A	N/A		
R010309	RUSH0057.D	1311-4028-S5	N/A	10.3	2	20.673	0.0125	0.26	N/A	N/A		
R010309	RUSH0093.D	1311-4028-S6	N/A	9.9	2	19.813	0.0125	0.25	N/A	N/A		
R010309	RUSH0135.D	1311-4028-S7	N/A	9.9	2	19.770	0.0125	0.25	N/A	N/A		
H010311	HILL0058.D	E00-1311-4028-S8	N/A	12.3	2	24.563	0.0125	0.31	N/A	N/A		
H010309	HILL0072.D	E00-1311-4030-S2	N/A	10.758796	2	21.518	0.0125	0.27	N/A	N/A		
H010309	HILL0107.D	E00-1311-4030-S3	N/A	10.082186	2	20.164	0.0125	0.25	N/A	N/A		
H010309	HILL0137.D	E00-1311-4030-S4	N/A	8.300946	2	16.602	0.0125	0.21	N/A	N/A		
R010309	RUSH0058.D	1311-4030-S5	N/A	6.2	2	12.400	0.0125	0.16	N/A	N/A		
R010309	RUSH0094.D	1311-4030-S6	N/A	9.4	2	18.806	0.0125	0.24	N/A	N/A		
R010309	RUSH0136.D	1311-4030-S7	N/A	10.4	2	20.827	0.0125	0.26	N/A	N/A		
H010311	HILL0059.D	E00-1311-4030-S8	N/A	10.4	2	20.863	0.0125	0.26	N/A	N/A	N/A	
H010309	HILL0080.D	E00-1311-4058-S2	2.4857	9.632074	2	19.264	0.0125	0.24	4.98	0.09596445	5.78	
H010309	HILL0110.D	E00-1311-4058-S3	2.4857	3.728289	2	7.457	0.0125	0.09	1.93	0.255888272	3.47	
R010309	RUSH0036.D	1311-4058-S4	2.4857	9.6	2	19.178	0.0125	0.24	4.96	0.096417966	4.92	
R010309	RUSH0066.D	1311-4058-S5	2.4857	27.1	2	54.199	0.0125	0.68	14.01	0.03086748	14.77	
R010309	RUSH0100.D	1311-4058-S6	2.4857	29.6	2	59.170	0.0125	0.74	15.29	0.027851652	14.41	
R010309	RUSH0140.D	1311-4058-S7	2.4857	27.7	2	55.331	0.0125	0.69	14.30	0.030133047	13.15	
H010311	HILL0069.D	E00-1311-4058-S8	2.4857	29.8	2	59.581	0.0125	0.74	15.40	0.027624799	11.41	
H010309	HILL0081.D	E00-1311-4059-S2	2.5226	10.882823	2	21.766	0.0125	0.27	5.50	0.085092813		
H010309	HILL0111.D	E00-1311-4059-S3	2.5226	5.345841	2	10.692	0.0125	0.13	2.70	0.178360505		
R010309	RUSH0037.D	1311-4059-S4	2.5226	9.6	2	19.297	0.0125	0.24	4.88	0.096614882		
R010309	RUSH0067.D	1311-4059-S5	2.5226	27.1	2	54.145	0.0125	0.68	13.69	0.031242717		
R010309	RUSH0101.D	1311-4059-S6	2.5226	28.0	2	55.953	0.0125	0.70	14.15	0.030073337		
H010311	HILL0036.D	E00-1311-4059-S7	2.5226	25.2	2	50.481	0.0125	0.63	12.76	0.033670005		
H010311	HILL0070.D	E00-1311-4059-S8	2.5226	11.5	2	22.987	0.0125	0.29	5.81	0.080306522		
H010309	HILL0082.D	E00-1311-4060-S2	2.4930	13.580921	2	27.162	0.0125	0.34	6.87	0.067949086		
H010309	HILL0112.D	E00-1311-4060-S3	2.4930	11.436618	2	22.873	0.0125	0.29	5.79	0.081629271		
	tube broke	1311-4060-S4	2.4930	N/A	2	N/A	0.0125	N/A	N/A	N/A		
R010309	RUSH0068.D	1311-4060-S5	2.4930	32.9	2	65.707	0.0125	0.82	16.62	0.025147447		
R010309	RUSH0106.D	1311-4060-S6	2.4930	27.2	2	54.492	0.0125	0.68	13.79	0.031354673		
H010311	HILL0037.D	E00-1311-4060-S7	2.4930	24.5	2	48.993	0.0125	0.61	12.40	0.035436552		
H010311	HILL0071.D	E00-1311-4060-S8	2.4930	25.7	2	51.495	0.0125	0.64	13.03	0.033471788		0.047134

			Calculation of A_s (adsorption % at time t) *to be plotted vs time*									
			t_i	V_o	C_o	m_o			$C^{sds}_{aq}(t_i)$	$m^{sds}_s(t_i)$	A_s
Run	Data Source File	Sample Description	Time point (hours)	Initial Volume of the test solution in contact with the soil (L)	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_o$	Mass concentration of the substance in the sample aliquot at time t (ug/L), as measured by LC-MS/MS	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor.	Mass of test substance on soil at the time t that the analysis was performed (ug), $m^{sds}_s(t_i) = m_o - (C^{sds}_{aq}(t_i) \times V_o)$	Adsorption percentage at time point t_i, $A_s = (m^{sds}_s(t_i) / m_o) \times 100\%$
H010309	HILL0086.D	E00-1311-4088-S2	2	0.0125	500.0	6.25	17.114436	10	171.14436	4.1106955	65.77113
H010309	HILL0120.D	E00-1311-4088-S3	4	0.0125	500.0	6.25	17.114436	10	171.14436	4.1106955	65.77113
R010309	RUSH0041.D	1311-4088-S4	6	0.0125	500.0	6.25	17.114436	10	171.14436	4.1106955	65.77113
R010309	RUSH0072.D	1311-4088-S5	8	0.0125	500.0	6.25	17.114436	10	171.14436	4.1106955	65.77113
R010309	RUSH0112.D	1311-4088-S6	24	0.0125	500.0	6.25	17.114436	10	171.14436	4.1106955	65.77113
H010311	HILL0041.D	E00-1311-4088-S7	32	0.0125	500.0	6.25	17.114436	10	171.14436	4.1106955	65.77113
H010311	HILL0081.D	E00-1311-4088-S8	48	0.0125	500.0	6.25	17.114436	10	171.14436	4.1106955	65.77113
H010309	HILL0087.D	E00-1311-4089-S2	2	0.0125	500.0	6.25	17.050029	10	170.50029	4.1187464	65.89994
H010309	HILL0121.D	E00-1311-4089-S3	4	0.0125	500.0	6.25	17.050029	10	170.50029	4.1187464	65.89994
R010309	~~RUSH0042.D~~	~~311-4089-S4* point thrown ou~~	6	0.0125	500.0	6.25	17.050029	10	170.50029	4.1187464	65.89994
R010309	RUSH0073.D	1311-4089-S5	8	0.0125	500.0	6.25	17.050029	10	170.50029	4.1187464	65.89994
R010309	RUSH0113.D	1311-4089-S6	24	0.0125	500.0	6.25	17.050029	10	170.50029	4.1187464	65.89994
H010311	HILL0042.D	E00-1311-4089-S7	32	0.0125	500.0	6.25	17.050029	10	170.50029	4.1187464	65.89994
H010311	HILL0082.D	E00-1311-4089-S8	48	0.0125	500.0	6.25	17.050029	10	170.50029	4.1187464	65.89994
H010309	HILL0092.D	E00-1311-4090-S2	2	0.0125	500.0	6.25	16.824527	10	168.24527	4.1469341	66.35095
H010309	HILL0122.D	E00-1311-4090-S3	4	0.0125	500.0	6.25	16.824527	10	168.24527	4.1469341	66.35095
R010309	RUSH0043.D	1311-4090-S4	6	0.0125	500.0	6.25	16.824527	10	168.24527	4.1469341	66.35095
R010309	RUSH0078.D	1311-4090-S5	8	0.0125	500.0	6.25	16.824527	10	168.24527	4.1469341	66.35095
R010309	RUSH0114.D	1311-4090-S6	24	0.0125	500.0	6.25	16.824527	10	168.24527	4.1469341	66.35095
H010311	HILL0043.D	E00-1311-4090-S7	32	0.0125	500.0	6.25	16.824527	10	168.24527	4.1469341	66.35095
H010311	HILL0083.D	E00-1311-4090-S8	48	0.0125	500.0	6.25	16.824527	10	168.24527	4.1469341	66.35095
H010309	HILL0096.D	E00-1311-4118-S2	2	0.0125	500.0	6.25	6.353969	10	63.53969	5.4557539	87.29206
H010309	HILL0126.D	E00-1311-4118-S3	4	0.0125	500.0	6.25	6.353969	10	63.53969	5.4557539	87.29206
R010309	RUSH0051.D	1311-4118-S4	6	0.0125	500.0	6.25	6.353969	10	63.53969	5.4557539	87.29206
R010309	RUSH0082.D	1311-4118-S5	8	0.0125	500.0	6.25	6.353969	10	63.53969	5.4557539	87.29206
R010309	RUSH0124.D	1311-4118-S6	24	0.0125	500.0	6.25	6.353969	10	63.53969	5.4557539	87.29206
H010311	HILL0051.D	E00-1311-4118-S7	32	0.0125	500.0	6.25	6.353969	10	63.53969	5.4557539	87.29206
H010311	HILL0093.D	E00-1311-4118-S8	48	0.0125	500.0	6.25	6.353969	10	63.53969	5.4557539	87.29206
H010309	HILL0097.D	E00-1311-4119-S2	2	0.0125	500.0	6.25	6.139234	10	61.39234	5.4825958	87.72153
H010309	HILL0127.D	E00-1311-4119-S3	4	0.0125	500.0	6.25	6.139234	10	61.39234	5.4825958	87.72153
R010309	RUSH0052.D	1311-4119-S4	6	0.0125	500.0	6.25	6.139234	10	61.39234	5.4825958	87.72153
R010309	RUSH0083.D	1311-4119-S5	8	0.0125	500.0	6.25	6.139234	10	61.39234	5.4825958	87.72153
R010309	RUSH0125.D	1311-4119-S6	24	0.0125	500.0	6.25	6.139234	10	61.39234	5.4825958	87.72153
H010311	HILL0052.D	E00-1311-4119-S7	32	0.0125	500.0	6.25	6.139234	10	61.39234	5.4825958	87.72153
H010311	HILL0094.D	E00-1311-4119-S8	48	0.0125	500.0	6.25	6.139234	10	61.39234	5.4825958	87.72153
H010309	HILL0098.D	E00-1311-4120-S2	2	0.0125	500.0	6.25	6.068331	10	60.68331	5.4914586	87.86334
H010309	HILL0128.D	E00-1311-4120-S3	4	0.0125	500.0	6.25	6.068331	10	60.68331	5.4914586	87.86334
R010309	RUSH0053.D	1311-4120-S4	6	0.0125	500.0	6.25	6.068331	10	60.68331	5.4914586	87.86334
R010309	RUSH0084.D	1311-4120-S5	8	0.0125	500.0	6.25	6.068331	10	60.68331	5.4914586	87.86334
R010309	RUSH0126.D	1311-4120-S6	24	0.0125	500.0	6.25	6.068331	10	60.68331	5.4914586	87.86334
H010311	HILL0053.D	E00-1311-4120-S7	32	0.0125	500.0	6.25	6.068331	10	60.68331	5.4914586	87.86334
H010311	HILL0095.D	E00-1311-4120-S8	48	0.0125	500.0	6.25	6.068331	10	60.68331	5.4914586	87.86334

			Calculation of D_{tt} (desorption % at time t)									
			m_{soil}			$C^{aq}_{ws}(t_i)$	V_o	$m^{aq}_{ws}(t_i)$	D_{tt}	K_{des}		
Run	Data Source File	Sample Description	Quantity of the soil phase, expressed in dry mass of soil, g	Quantity of the aqueous phase, expressed in mass of water, g	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor.	Initial Volume of the desorb solvent in contact with the soil (L)	Mass of the test substance desorbed from the soil at a time point t, (ug), $m^{aq}_{ws}(t_i) = C^{aq}_{ws}(t_i) \times V_o$	Desorption percentage at a time point t, (%), $D_t = (m^{aq}_{ws}(t_i) / m^{aq}_{ws}(eq)) \times 100\%$	Desorption coefficient (ml/g), $K_{des} = ((m^{aq}_{ws}(eq) - m^{aq}_{ws}(t_i)) / m^{aq}_{ws}(t_i)) \times (V_o / m_{soil})$	Average Desorption percentage (over triplicates) at a time point t, (%), $D_t = (m^{aq}_{ws}(t_i) / m^{aq}_{ws}(eq)) \times 100\%$	Average Desorption coefficient at equilibrium (ml/g), $K_{des} = ((m^{aq}_{ws}(eq) - m^{aq}_{ws}(t_i)) / m^{aq}_{ws}(t_i)) \times (V_o / m_{soil})$
H010309	HILL0086.D	E00-1311-4088-S4	2.4987	24.565447	2	49.131	0.0125	0.61	14.94	0.028482107	14.15	
H010309	HILL0120.D	E00-1311-4088-S3	2.4987	17.140262	2	34.281	0.0125	0.43	10.42	0.042987729	12.68	
R010309	RUSH0041.D	1311-4088-S4	2.4987	76.8	2	153.653	0.0125	1.92	46.72	0.005704186	29.68	
R010309	RUSH0072.D	1311-4088-S5	2.4987	40.3	2	80.580	0.0125	1.01	24.50	0.015413529	26.17	
R010309	RUSH0112.D	1311-4088-S6	2.4987	38.5	2	77.000	0.0125	0.96	23.41	0.016362638	23.38	
H010311	HILL0041.D	E00-1311-4088-S7	2.4987	37.7	2	75.372	0.0125	0.94	22.92	0.016824113	23.96	
H010311	HILL0081.D	E00-1311-4088-S8	2.4987	40.2	2	80.308	0.0125	1.00	24.42	0.015482584	24.05	
H010309	HILL0087.D	E00-1311-4089-S2	2.5038	22.166603	2	44.333	0.0125	0.55	13.45	0.032112917		
H010309	HILL0121.D	E00-1311-4089-S3	2.5038	22.525864	2	45.052	0.0125	0.56	13.67	0.03152113		
R010309	~~RUSH0042.D~~	~~311-4089-S4* point thrown ou~~	2.5038	N/A	2	N/A	0.0125	N/A	N/A	N/A	*Q-Test Outlier	
R010309	RUSH0073.D	1311-4089-S5	2.5038	43.8	2	87.688	0.0125	1.10	26.61	0.013767359		
R010309	RUSH0113.D	1311-4089-S6	2.5038	40.5	2	80.939	0.0125	1.01	24.56	0.015331531		
H010311	HILL0042.D	E00-1311-4089-S7	2.5038	42.6	2	85.112	0.0125	1.06	25.83	0.014335101		
H010311	HILL0082.D	E00-1311-4089-S8	2.5038	41.4	2	82.811	0.0125	1.04	25.13	0.01487202		
H010309	HILL0092.D	E00-1311-4090-S2	2.491	23.314433	2	46.629	0.0125	0.58	14.06	0.030684429		
H010309	HILL0122.D	E00-1311-4090-S3	2.491	23.112191	2	46.224	0.0125	0.58	13.93	0.030996842		
R010309	RUSH0043.D	1311-4090-S4	2.491	21.0	2	41.911	0.0125	0.52	12.63	0.034703651		
R010309	RUSH0078.D	1311-4090-S5	2.491	45.4	2	90.856	0.0125	1.14	27.39	0.013305163		
R010309	RUSH0114.D	1311-4090-S6	2.491	36.7	2	73.500	0.0125	0.92	22.15	0.017631959		
H010311	HILL0043.D	E00-1311-4090-S7	2.491	38.4	2	76.743	0.0125	0.96	23.13	0.016674694		
H010311	HILL0083.D	E00-1311-4090-S8	2.491	37.5	2	75.009	0.0125	0.94	22.61	0.017176159		0.015844
H010309	HILL0096.D	E00-1311-4118-S2	2.5084	15.647205	2	31.294	0.0125	0.39	7.17	0.064517769	7.36	
H010309	HILL0126.D	E00-1311-4118-S3	2.5084	8.254569	2	16.509	0.0125	0.21	3.78	0.126761573	12.16	
R010309	RUSH0051.D	1311-4118-S4	2.5084	13.0	2	25.970	0.0125	0.32	5.95	0.078766333	7.27	
R010309	RUSH0082.D	1311-4118-S5	2.5084	19.4	2	38.812	0.0125	0.49	8.89	0.051056525	10.70	
R010309	RUSH0124.D	1311-4118-S6	2.5084	29.7	2	59.398	0.0125	0.74	13.61	0.031634153	12.86	
H010311	HILL0051.D	E00-1311-4118-S7	2.5084	3.0	2	6.000	0.0125	0.08	1.37	0.357515672	9.18	
H010311	HILL0093.D	E00-1311-4118-S8	2.5084	< 5.0	2	< 10.0	0.0125	N/A	N/A	N/A	12.59	
H010309	HILL0097.D	E00-1311-4119-S2	2.5358	15.158642	2	30.317	0.0125	0.38	6.91	0.066385597		
H010309	HILL0127.D	E00-1311-4119-S3	2.5358	< 5.0	2	< 10.0	0.0125	N/A	N/A	N/A		
R010309	RUSH0052.D	1311-4119-S4	2.5358	18.3	2	36.631	0.0125	0.46	8.35	0.054094071		
R010309	RUSH0083.D	1311-4119-S5	2.5358	24.5	2	48.907	0.0125	0.61	11.15	0.039278883		
R010309	RUSH0125.D	1311-4119-S6	2.5358	28.6	2	57.296	0.0125	0.72	13.06	0.032805549		
H010311	HILL0052.D	E00-1311-4119-S7	2.5358	28.6	2	57.102	0.0125	0.71	13.02	0.032934105		
H010311	HILL0094.D	E00-1311-4119-S8	2.5358	29.7	2	59.393	0.0125	0.74	13.54	0.031473787		
H010309	HILL0098.D	E00-1311-4120-S2	2.4820	17.540006	2	35.080	0.0125	0.44	7.99	0.058034229		
H010309	HILL0128.D	E00-1311-4120-S3	2.4820	45.097179	2	90.194	0.0125	1.13	20.53	0.019494248		
R010309	RUSH0053.D	1311-4120-S4	2.4820	16.5	2	33.022	0.0125	0.41	7.52	0.061965748		
R010309	RUSH0084.D	1311-4120-S5	2.4820	26.5	2	53.005	0.0125	0.66	12.07	0.036705655		
R010309	RUSH0126.D	1311-4120-S6	2.4820	28.1	2	52.258	0.0125	0.65	11.90	0.037302337		
H010311	HILL0053.D	E00-1311-4120-S7	2.4820	28.9	2	57.785	0.0125	0.72	13.15	0.033252161		
H010311	HILL0095.D	E00-1311-4120-S8	2.4820	25.6	2	51.138	0.0125	0.64	11.64	0.038229228		0.034852

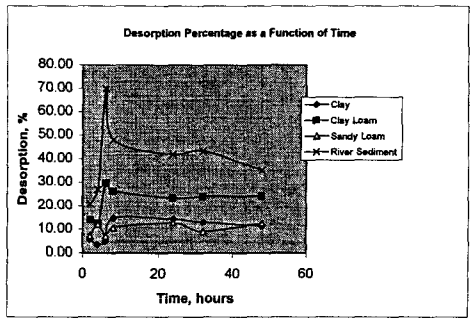
Calculation of A_e (adsorption % at time t) *to be plotted vs time*

Run	Data Source File	Sample Description	t_i Time point (hours)	V_s Initial Volume of the test solution in contact with the soil (L)	C_o Initial mass concentration of the test solution in contact with the soil (ug/L)	m_o Mass of test substance in the test tube at the beginning of the test (ug), $m_o = C_o \times V_s$	Mass concentration in the aqueous phase at the time t that the analysis was performed (ug/L), corrected for the dilution factor	Sample Dilution Factor	$C^{aqs}{}_{aq}(t_i)$ Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor.	$m^{aqs}{}_{s}(t_i)$ Mass of test substance on soil at the time t that the analysis was performed (ug), $m^{aqs}{}_{s}(t_i) = m_o - (C^{aqs}{}_{aq}(t_i) \times V_s)$	A_{ti} Adsorption percentage at time point t, $A_{ti} = (m^{aqs}{}_{s}(t_i) / m_o) \times 100\%$
H010319a	HILL0035.D	1311-4148-S2	2	0.0125	500.0	6.25	20.123399	10	201.23399	3.7345751	59.7532
H010319a	HILL0041.D	1311-4148-S3	4	0.0125	500.0	6.25	20.123399	10	201.23399	3.7345751	59.7532
H010319a	HILL0050.D	1311-4148-S4	6	0.0125	500.0	6.25	20.123399	10	201.23399	3.7345751	59.7532
H010319a	HILL0060.D	1311-4148-S5	8	0.0125	500.0	6.25	20.123399	10	201.23399	3.7345751	59.7532
H010319a	HILL0067.D	1311-4148-S6	24	0.0125	500.0	6.25	20.123399	10	201.23399	3.7345751	59.7532
H010319a	HILL0078.D	1311-4148-S7	32	0.0125	500.0	6.25	20.123399	10	201.23399	3.7345751	59.7532
H010319a	HILL0089.D	1311-4148-S8	48	0.0125	500.0	6.25	20.123399	10	201.23399	3.7345751	59.7532
H010319a	HILL0036.D	1311-4149-S2	2	0.0125	500.0	6.25	20.041683	10	200.41683	3.7447896	59.91663
H010319a	HILL0046.D	1311-4149-S3	4	0.0125	500.0	6.25	20.041683	10	200.41683	3.7447896	59.91663
H010319a	HILL0051.D	1311-4149-S4	6	0.0125	500.0	6.25	20.041683	10	200.41683	3.7447896	59.91663
H010319a	HILL0061.D	1311-4149-S5	8	0.0125	500.0	6.25	20.041683	10	200.41683	3.7447896	59.91663
H010319a	HILL0068.D	1311-4149-S6	24	0.0125	500.0	6.25	20.041683	10	200.41683	3.7447896	59.91663
H010319a	HILL0079.D	1311-4149-S7	32	0.0125	500.0	6.25	20.041683	10	200.41683	3.7447896	59.91663
H010319a	HILL0090.D	1311-4149-S8	48	0.0125	500.0	6.25	20.041683	10	200.41683	3.7447896	59.91663
H010319a	HILL0037.D	1311-4150-S2	2	0.0125	500.0	6.25	20.172713	10	201.72713	3.7284109	59.65457
H010319a	HILL0047.D	1311-4150-S3	4	0.0125	500.0	6.25	20.172713	10	201.72713	3.7284109	59.65457
H010319a	HILL0052.D	11-4150-S4 point thrown out	6	0.0125	500.0	6.25	20.172713	10	201.72713	3.7284109	59.65457
H010319a	HILL0062.D	1311-4150-S5	8	0.0125	500.0	6.25	20.172713	10	201.72713	3.7284109	59.65457
H010319a	HILL0073.D	1311-4150-S6	24	0.0125	500.0	6.25	20.172713	10	201.72713	3.7284109	59.65457
H010319a	HILL0080.D	1311-4150-S7	32	0.0125	500.0	6.25	20.172713	10	201.72713	3.7284109	59.65457
H010319a	HILL0091.D	1311-4150-S8	48	0.0125	500.0	6.25	20.172713	10	201.72713	3.7284109	59.65457
R010404ext	RUSH0035.D	1311-4178-S2	2	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0041.D	1311-4178-S3	4	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0051.D	1311-4178-S4	6	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0060.D	1311-4178-S5	8	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0067.D	1311-4178-S6	24	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0078.D	1311-4178-S7	32	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0089.D	1311-4178-S8	48	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0036.D	1311-4179-S2	2	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0046.D	1311-4179-S3	4	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0052.D	1311-4179-S4	6	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0061.D	1311-4179-S5	8	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0068.D	1311-4179-S6	24	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0079.D	1311-4179-S7	32	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0090.D	1311-4179-S8	48	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0037.D	1311-4180-S2	2	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0047.D	1311-4180-S3	4	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
		1311-4180-S4	6	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0062.D	1311-4180-S5	8	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0069.D	1311-4180-S6	24	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0080.D	1311-4180-S7	32	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%
R010404ext	RUSH0091.D	1311-4180-S8	48	0.0125	500.0	6.25	<10.0	2.00	< 20	>6.0	> 96%

E00-1311

PFOS Adsorb/Desorb

			Calculation of D_{tj} (desorption % at time t_j)								
			m_{soil}			$C^{test}_{aq}(t_j)$	V_o	$m^{test}_{aq}(t_j)$	D_{tj}	K_{test}	
Run	Data Source File	Sample Description	Quantity of the soil phase, expressed in dry mass of soil, g	Mass concentration of the test substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor.	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor.	Initial Volume of the desorb solvent in contact with the soil (L)	Mass of the test substance desorbed from the soil at a time point t_j (ug), $m^{test}_{aq}(t_j) = C^{test}_{aq}(t_j) \times V_o$	Desorption percentage at a time point t_j (%), $D_{tj} = (m^{test}_{aq}(t_j) / m^{test}_{aq}(eq)) \times 100\%$	Desorption coefficient (ml/g), $K_{test} = [(m^{test}_{aq}(eq) / m^{test}_{soil}(eq)) \times (V_o / m_{soil})]$	Average Desorption percentage (over triplicates) at a time point t_j (%), $D_{tj} = (m^{test}_{aq}(t_j) / m^{test}_{aq}(eq)) \times 100\%$
H010319a	HILL0033.D	E00-1311-4148-S2	2.5048	30.5	2	61.012	0.0125	0.76	20.42	0.019447047	20.81
H010319a	HILL0041.D	1311-4148-S3	2.5048	39.1	2	78.101	0.0125	0.98	26.14	0.014099941	27.04
H010319a	HILL0050.D	1311-4148-S4	2.5048	131.4	2	262.770	0.0125	3.28	87.95	0.000683619	70.01
H010319a	HILL0060.D	1311-4148-S5	2.5048	72.9	2	145.867	0.0125	1.82	48.82	0.005231021	48.03
H010319a	HILL0067.D	1311-4148-S6	2.5048	59.1	2	118.209	0.0125	1.48	39.57	0.007622552	41.91
H010319a	HILL0078.D	1311-4148-S7	2.5048	60.4	2	120.703	0.0125	1.51	40.40	0.007361997	43.49
H010319a	HILL0089.D	1311-4148-S8	2.5048	58.6	2	117.269	0.0125	1.47	39.25	0.007723675	35.19
H010319a	HILL0036.D	1311-4149-S2	2.5018	32.4	2	64.706	0.0125	0.81	21.60	0.018136497	
H010319a	HILL0046.D	1311-4149-S3	2.5018	38.5	2	76.924	0.0125	0.96	25.68	0.014462163	
H010319a	HILL0051.D	1311-4149-S4	2.5018	78.0	2	155.968	0.0125	1.95	52.06	0.004600666	
H010319a	HILL0061.D	1311-4149-S5	2.5018	63.0	2	125.944	0.0125	1.57	42.04	0.006888569	
H010319a	HILL0068.D	1311-4149-S6	2.5018	64.6	2	129.276	0.0125	1.62	43.15	0.00658219	
H010319a	HILL0079.D	1311-4149-S7	2.5018	63.2	2	126.316	0.0125	1.58	42.16	0.00685357	
H010319a	HILL0090.D	1311-4149-S8	2.5018	62.8	2	125.585	0.0125	1.57	41.92	0.006922545	
H010319a	HILL0037.D	1311-4150-S2	2.5064	30.4	2	60.896	0.0125	0.76	20.42	0.019440686	
H010319a	HILL0047.D	1311-4150-S3	2.5064	43.7	2	87.429	0.0125	1.09	29.31	0.012027234	
H010319a	HILL0052.D	11-4150-S4 point thrown out	2.5064	212.6	2	425.224	0.0125	5.32	142.56	-0.00148895	**bad injection,
H010319a	HILL0062.D	1311-4150-S5	2.5064	79.4	2	158.750	0.0125	1.98	53.22	0.004383175	refer to QC summary sheet
H010319a	HILL0073.D	1311-4150-S6	2.5064	64.2	2	128.323	0.0125	1.60	43.02	0.006605041	
H010319a	HILL0080.D	1311-4150-S7	2.5064	71.4	2	142.857	0.0125	1.79	47.89	0.00542565	
H010319a	HILL0091.D	1311-4150-S8	2.5064	36.4	2	72.779	0.0125	0.91	24.40	0.01545214	0.010033
R010404ext	RUSH0035.D	1311-4178-S2	2.5021	< 10.0	2	<20.0	0.0125	<2.08	<0.235	<0.237	N/A
R010404ext	RUSH0041.D	1311-4178-S3	2.5021	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	N/A
R010404ext	RUSH0051.D	1311-4178-S4	2.5021	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	N/A
R010404ext	RUSH0060.D	1311-4178-S5	2.5021	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	N/A
R010404ext	RUSH0067.D	1311-4178-S6	2.5021	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	N/A
R010404ext	RUSH0078.D	1311-4178-S7	2.5021	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	N/A
R010404ext	RUSH0089.D	1311-4178-S8	2.5021	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	N/A
R010404ext	RUSH0036.D	1311-4179-S2	2.4837	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
R010404ext	RUSH0046.D	1311-4179-S3	2.4837	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
R010404ext	RUSH0052.D	1311-4179-S4	2.4837	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
R010404ext	RUSH0061.D	1311-4179-S5	2.4837	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
R010404ext	RUSH0068.D	1311-4179-S6	2.4837	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
R010404ext	RUSH0079.D	1311-4179-S7	2.4837	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
R010404ext	RUSH0090.D	1311-4179-S8	2.4837	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
R010404ext	RUSH0037.D	1311-4180-S2	2.5205	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
R010404ext	RUSH0047.D	1311-4180-S3	2.5205	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
		1311-4180-S4	2.5205	tube broke	2	N/A	0.0125	N/A	N/A	N/A	
R010404ext	RUSH0062.D	1311-4180-S5	2.5205	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
R010404ext	RUSH0069.D	1311-4180-S6	2.5205	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
R010404ext	RUSH0080.D	1311-4180-S7	2.5205	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	
R010404ext	RUSH0091.D	1311-4180-S8	2.5205	< 10.0	2	< 20.0	0.0125	< 2.08	< 0.235	< 0.237	N/A



3M Environmental Laboratory

Tier III: "Adsorption/Desorption Isotherms"

			Adsorption						plot to determine K and n				
			C_o			$C^{aas}_{aq}(eq)$			m_{soil}	V_o	$C^{aas}_s(aq)$		
RUN	Data Source File	Sample Description	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor	Log $C^{aas}_{aq}(eq)$	Average	Quantity of the soil phase, expressed in dry mass of soil, g	Initial Volume of the $CaCl_2$ test solution in contact with the soil (L)	The content of the test substance adsorbed on the soil at the time the analysis was performed, ug/g = $[(C_o - C^{aas}_{aq}(eq))V_o]/m_{soil}$	Log $C^{aas}_s(aq)$	Average
H010311	HILL0101.D	E00-1311-5004	500	196.1	2	392.199088	2.59350658		N/A	0.0125	N/A	N/A	
H010311	HILL0106.D	E00-1311-5005	500	197.5	2	395.05281	2.59665516		N/A	0.0125	N/A	N/A	
H010311	HILL0107.D	E00-1311-5006	500	198.5	2	396.986296	2.59877552		N/A	0.0125	N/A	N/A	
H010311	HILL0109.D	E00-1311-5007	2000	253.2	10	2532.17072	3.40349298		N/A	0.0125	N/A	N/A	
H010311	HILL0110.D	E00-1311-5008	2000	183.9	10	1839.44725	3.26468734		N/A	0.0125	N/A	N/A	
H010311	HILL0111.D	E00-1311-5009	2000	169.5	10	1695.33729	3.22925611		N/A	0.0125	N/A	N/A	
H010311	HILL0113.D	E00-1311-5010	5000	435.7	10	4357.28356	3.63921582		N/A	0.0125	N/A	N/A	
H010311	HILL0114.D	E00-1311-5011	5000	403.3	10	4033.37088	3.60566816		N/A	0.0125	N/A	N/A	
H010311	HILL0115.D	E00-1311-5012	5000	406.6	10	4065.65759	3.6091308		N/A	0.0125	N/A	N/A	
H010311	HILL0121.D	E00-1311-5013	10000	102.7	100	10270.0043	4.01157063		N/A	0.0125	N/A	N/A	
H010311	HILL0122.D	E00-1311-5014	10000	110.0	100	10996.3071	4.04124686		N/A	0.0125	N/A	N/A	
H010311	HILL0123.D	E00-1311-5015	10000	102.9	100	10288.8621	4.01236735		N/A	0.0125	N/A	N/A	
R010402a	RUSH0037.D	1311-5016	50000	69.243301	1000	69243.301	4.84037776		N/A	0.0125	N/A	N/A	
R010402a	RUSH0038.D	1311-5017	50000	63.879261	1000	63879.261	4.80535988		N/A	0.0125	N/A	N/A	
R010402a	RUSH0039.D	1311-5018	50000	64.31529	1000	64315.29	4.80831423		N/A	0.0125	N/A	N/A	
H010311	HILL0137.D	E00-1311-5022	500	186.8	2	373.65555	2.57247144		N/A	0.0125	N/A	N/A	
H010311	HILL0138.D	E00-1311-5023	500	193.1	2	386.188014	2.58679879		N/A	0.0125	N/A	N/A	
H010311	HILL0139.D	E00-1311-5024	500	200.3	2	400.617808	2.60273025		N/A	0.0125	N/A	N/A	
R010329a	RUSH0037.D	1311-5025	2000	159.93	10	1599.3353	3.20393952		N/A	0.0125	N/A	N/A	
R010329a	RUSH0038.D	1311-5026	2000	152.92	10	1529.15715	3.18445212		N/A	0.0125	N/A	N/A	
R010329a	RUSH0039.D	1311-5027	2000	143.26	10	1432.64531	3.15613868		N/A	0.0125	N/A	N/A	
R010329a	RUSH0041.D	1311-5028	5000	391.37	10	3913.70145	3.59258769		N/A	0.0125	N/A	N/A	
R010329a	RUSH0042.D	1311-5029	5000	230.09	10	2300.94744	3.3619067		N/A	0.0125	N/A	N/A	
R010329a	RUSH0043.D	1311-5030	5000	387.34	10	3873.38636	3.58809082		N/A	0.0125	N/A	N/A	
R010329a	RUSH0049.D	1311-5031	10000	82.81	100	8281.3209	3.91809961		N/A	0.0125	N/A	N/A	
R010329a	RUSH0050.D	1311-5032	10000	85.11	100	8510.8629	3.92997359		N/A	0.0125	N/A	N/A	
R010329a	RUSH0051.D	1311-5033	10000	80.38	100	8037.8359	3.90513914		N/A	0.0125	N/A	N/A	
R010329a	RUSH0053.D	1311-5034	50000	404.55	100	40454.91	4.60697124		N/A	0.0125	N/A	N/A	
R010329a	RUSH0054.D	1311-5035	50000	414.16	100	41416.3251	4.61717156		N/A	0.0125	N/A	N/A	
R010329a	RUSH0055.D	1311-5036	50000	433.98	100	43397.8954	4.63746867		N/A	0.0125	N/A	N/A	

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			Adsorption						plot to determine K and n				
			C_o			C^{aas}_{aq}(eq)			m_{soil}	V_o	C^{aas}_{s}(aq)		
RUN	Data Source File	Sample Description	Initial mass concentration of the test solution in contact with the soil (µg/L)	Mass concentration of the substance in the aqueous phase at the time that the analysis was performed (µg/L), analytical result x dilution factor.	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time that the analysis was performed (µg/L), analytical result x dilution factor.	Log C^{aas}_{aq}(eq)	average	Quantity of the soil phase, expressed in dry mass of soil, g	Initial Volume of the CaCl2 test solution in contact with the soil (L)	The content of the test substance adsorbed on the soil at the time the analysis was performed, $s_{eq} = [(C_o - C^{aas}_{aq}(eq))]V_o/m_{soil}$	Log C^{aas}_{s}(aq)	average
R010329a	RUSH0065.D	1311-5040	500	99.69	2	199.378426	2.29967816		2.4853	0.0125	1.511998	0.179551	
R010329a	RUSH0066.D	1311-5041	500	96.20	2	192.408926	2.28422522		2.492	0.0125	1.542893	0.188336	
R010329a	RUSH0067.D	1311-5042	500	58.15	2	116.296416	2.06556633		2.4898	0.0125	1.926378	0.284741	
R010329a	RUSH0069.D	1311-5043	2000	460.98	2	921.958724	2.96471148		2.5046	0.0125	5.380307	0.730807	
R010329a	RUSH0070.D	1311-5044S1	2000	305.78	2	611.563282	2.7864414		2.5154	0.0125	6.899682	0.838829	
R010329a	RUSH0071.D	1311-5045	2000	> 501	2	N/A	N/A		2.5162	0.0125	N/A	N/A	
R010329a	RUSH0077.D	1311-5046	5000	183.73	10	1837.31918	3.26418461		2.4949	0.0125	15.84573	1.199912	
R010329a	RUSH0078.D	1311-5047	5000	166.25	10	1662.52521	3.22076824		2.5008	0.0125	16.68204	1.222249	
R010329a	RUSH0079.D	1311-5048	5000	156.55	10	1565.51161	3.19465629		2.521	0.0125	17.0294	1.231199	
R010329a	RUSH0081.D	1311-5049	10000	359.52	10	3595.21967	3.55572543		2.4853	0.0125	32.21332	1.508035	
R010329a	RUSH0082.D	1311-5050-1S	10000	> 501	10	N/A	N/A		2.5132	0.0125	N/A	N/A	
R010329a	RUSH0083.D	1311-5051	10000	351.66	10	3516.5502	3.54611682		2.4976	0.0125	32.4484	1.511193	
R010329a	RUSH0085.D	1311-5052	50000	211.71	100	21170.5882	4.32573292		2.5007	0.0125	144.1067	2.158684	
R010329a	RUSH0090.D	1311-5053	50000	253.43	100	25342.8747	4.40385588		2.5287	0.0125	121.8864	2.085955	
R010329a	RUSH0091.D	1311-5054	50000	207.41	100	20741.2664	4.31683527		2.5065	0.0125	145.9143	2.164098	
R010329a	RUSH0097.D	1311-5058	500	31.83	2	63.66312	1.80388792		2.4936	0.0125	2.187284	0.339905	
R010329a	RUSH0098.D	1311-5059	500	34.15	2	68.302058	1.83443379	1.8183721	2.4697	0.0125	2.184972	0.339446	0.338176
R010329a	RUSH0099.D	1311-5060	500	32.79	2	65.5835	1.81679459		2.5098	0.0125	2.163601	0.335177	
R010329b	RUSH0121.D	1311-5061	2000	135.13	2	270.25587	2.43177514		2.517	0.0125	8.590307	0.934009	
R010329b	RUSH0122.D	1311-5062	2000	141.11	2	282.215634	2.45058107	2.44621055	2.5023	0.0125	8.581027	0.933539	0.934025
R010329b	RUSH0123.D	1311-5063	2000	142.97	2	285.940358	2.45627546		2.4912	0.0125	8.600572	0.934527	
R010329b	RUSH0125.D	1311-5064	5000	83.18	10	831.7832	2.92001014		2.482	0.0125	20.99223	1.322059	
R010329b	RUSH0126.D	1311-5065	5000	77.82	10	778.17175	2.89107546	2.90096809	2.5173	0.0125	20.96407	1.321476	1.322114
R010329b	RUSH0127.D	1311-5066	5000	77.95	10	779.50456	2.89181866		2.5088	0.0125	21.02846	1.322807	
R010329b	RUSH0129.D	1311-5067	10000	179.53	10	1795.32634	3.2541434		2.5042	0.0125	40.95456	1.612302	
R010329b	RUSH0134.D	1311-5068	10000	187.10	10	1871.04255	3.27208366	3.25364837	2.4816	0.0125	40.94615	1.612213	1.614521
R010329b	RUSH0135.D	1311-5069	10000	171.68	10	1716.79339	3.23471803		2.4892	0.0125	41.59573	1.619049	
R010329b	RUSH0137.D	1311-5070	50000	101.23	100	10122.5113	4.00528827		2.4872	0.0125	200.4136	2.301927	
R010329b	RUSH0138.D	1311-5071	50000	103.30	100	10329.5006	4.01407933	4.01928362	2.5011	0.0125	198.2653	2.297247	2.296913
R010329b	RUSH0139.D	1311-5072	50000	109.27	100	10926.5554	4.03848327		2.4959	0.0125	195.6882	2.291565	

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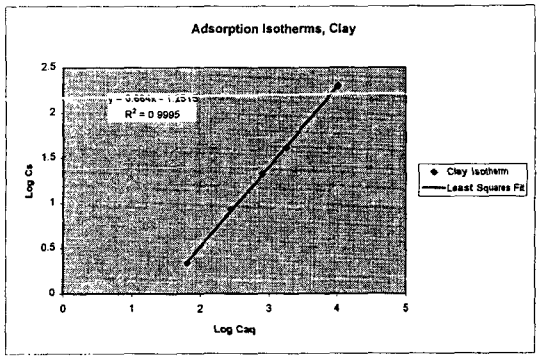
			Adsorption						plot to determine K and n				
			C_o			C^{aas}_{aq}(eq)			m_{soil}	V_o	C^{aas}_s(aq)		
RUN	Data Source File	Sample Description	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass concentration of the substance in the aqueous phase at the time that the analyses were performed (ug/L), analytical result x Dilution factor.	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time that the analyses were performed (ug/L), analytical result x Dilution factor.	Log C^{aas}_{aq}(eq)	average	Quantity of the soil phase, expressed in dry mass of soil, g	Initial Volume of the $CaCl_2$ test solution in contact with the soil (L)	The content of the test substance adsorbed on the soil at the time the analyses were performed, ug/g = $[(C_o - C^{aas}_{aq}(eq))]V_o/m_{soil}$	Log C^{aas}_s(aq)	average
R010329b	RUSH0149.D	1311-5076	500	75.82	2	151.641086	2.18081689		2.5117	0.0125	1.733681	0.238969	
R010329b	RUSH0150.D	1311-5077	500	75.66	2	151.315862	2.17988446		2.4893	0.0125	1.750915	0.243265	
R010329b	RUSH0151.D	1311-5078	500	95.65	2	191.29506	2.28170375		2.4858	0.0125	1.552342	0.190987	
H010405int	HILL0039.D	1311-5079	2000	96.606457	10	966.06457	2.98500615		2.4932	0.0125	5.183777	0.714646	
H010405int	HILL0040.D	1311-5080	2000	121.213214	10	1212.13214	3.08354997		2.5126	0.0125	3.919585	0.59324	
H010405int	HILL0045.D	1311-5081	2000	91.012507	10	910.12507	2.95910108		2.4841	0.0125	5.484255	0.739118	
R010329b	RUSH0157.D	1311-5082	5000	238.27	10	2382.72209	3.37707339		2.497	0.0125	13.10211	1.117341	
R010329b	RUSH0162.D	1311-5083	5000	236.36	10	2363.6275	3.37357903		2.4851	0.0125	13.2609	1.122573	
R010329b	RUSH0163.D	1311-5084	5000	226.44	10	2264.43015	3.35495893		2.4867	0.0125	13.751	1.138334	
H010405int	HILL0047.D	1311-5085	10000	52.079333	100	5207.9333	3.71666541		2.5197	0.0125	23.773	1.376084	
H010405int	HILL0048.D	1311-5086	10000	51.355299	100	5135.5299	3.71058526		2.5023	0.0125	24.29999	1.385606	
H010405int	HILL0049.D	1311-5087	10000	51.676981	100	5167.6981	3.71329713		2.5014	0.0125	24.14799	1.382881	
R010312	RUSH0030.D	1311-5088	50000	289.8	100	28984.2339	4.46216183		2.5000	0.0125	105.0788	2.021515	
R010312	RUSH0031.D	1311-5089	50000	268.9	100	26891.0326	4.42960748		2.5086	0.0125	115.1487	2.061259	
R010312	RUSH0032.D	1311-5090	50000	269.9	100	26991.5171	4.4312273		2.4894	0.0125	115.5323	2.062703	
R010312	RUSH0038.D	1311-5094	500	49.0	2	98.0234	1.99132976		2.5032	0.0125	2.007314	0.302615	
R010312	RUSH0039.D	1311-5095	500	54.8	2	109.688412	2.04016075	1.9989094	2.4944	0.0125	1.955939	0.291355	0.301584
R010312	RUSH0044.D	1311-5096	500	46.2	2	92.307648	1.96523769		2.4915	0.0125	2.045416	0.310782	
R010312	RUSH0046.D	1311-5097	2000	191.2	2	382.498934	2.58263023		2.4779	0.0125	8.159637	0.911671	
R010312	RUSH0047.D	1311-5098	2000	249.9	2	499.850758	2.69884036	2.65371018	2.4904	0.0125	7.52966	0.876775	0.889584
R010312	RUSH0048.D	1311-5099	2000	239.1	2	478.255482	2.67965996		2.5058	0.0125	7.591111	0.880305	
R010312	RUSH0050.D	1311-5100	5000	153.8	10	1537.57868	3.18683735		2.5149	0.0125	17.20954	1.235769	
R010312	RUSH0051.D	1311-5101	5000	140.8	10	1408.05483	3.14861957	3.15849757	2.515	0.0125	17.85261	1.251702	1.248259
R010312	RUSH0052.D	1311-5102	5000	138.0	10	1380.49807	3.1400358		2.5018	0.0125	18.08449	1.257306	
R010312	RUSH0058.D	1311-5103	10000	321.0	10	3209.84698	3.50648433		2.4835	0.0125	34.17633	1.533725	
R010312	RUSH0059.D	1311-5104	10000	306.8	10	3067.92472	3.4868447	3.492755	2.4937	0.0125	34.74794	1.540929	1.538925
R010312	RUSH0060.D	1311-5105	10000	305.4	10	3054.47082	3.48493598		2.4917	0.0125	34.84333	1.54212	
R010312	RUSH0062.D	1311-5106	50000	180.1	100	18011.5457	4.25555098		2.5096	0.0125	159.3304	2.202299	
R010312	RUSH0063.D	1311-5107	50000	176.0	100	17602.9055	4.24558436	4.24402235	2.4812	0.0125	163.2128	2.212754	2.211593
R010312	RUSH0064.D	1311-5108	50000	170.2	100	17018.9084	4.2309317		2.4857	0.0125	165.8541	2.219726	

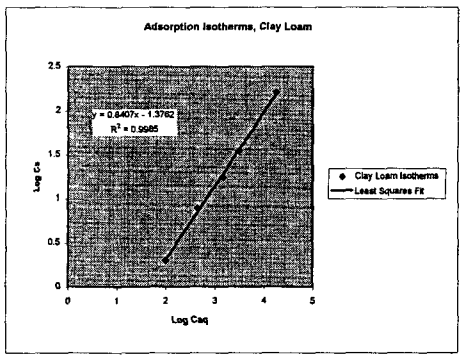
			Adsorption						plot to determine K and n				
			C_0						m_{soil}	V_0	$C^{aq}_s(eq)$		
RUN	Data Source File	Sample Description	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass concentration of the substance in the aqueous phase at the end of the adsorption test (ug/L), determined by analysis of the supernatant solution after centrifugation	Sample Dilution Factor	$C^{aq}_{aq}(eq)$ Mass concentration of the substance in the aqueous phase at the time that the analysis was performed (ug/L), analytical result x dilution factor.	Log $C^{aq}_{aq}(eq)$	average	Quantity of the soil phase, expressed in dry mass of soil, g	Initial Volume of the $CaCl_2$ test solution in contact with the soil (L)	The content (or the test substance adsorbed on the soil at the time the analysis was performed, ug/g $=[(C_0 - C^{aq}_{aq}(eq))]V_0/m_{soil}$	Log $C^{aq}_s(eq)$	average
R010312	RUSH0074.D	1311-5112	500	62.4	2	124.769652	2.09610896		2.4938	0.0125	1.880816	0.274346	
R010312	RUSH0075.D	1311-5113	500	61.1	2	122.284228	2.08737045		2.522	0.0125	1.872104	0.27233	
R010312	RUSH0076.D	1311-5114	500	66.1	2	132.259912	2.12142823		2.5138	0.0125	1.828607	0.26212	
R010312	RUSH0078.D	1311-5115	2000	324.3	2	648.68341	2.81203279		2.5025	0.0125	6.749833	0.829293	
R010312	RUSH0079.D	1311-5116	2000	337.1	2	674.288876	2.828846		2.4887	0.0125	6.658653	0.823386	
R010312	RUSH0080.D	1311-5117	2000	303.4	2	606.715152	2.78298484		2.4952	0.0125	6.979826	0.843845	
R010312	RUSH0086.D	1311-5118	5000	200.5	10	2005.16531	3.30215018		2.4949	0.0125	15.00478	1.17623	
R010312	RUSH0087.D	1311-5119	5000	177.7	10	1777.00509	3.24968867		2.4973	0.0125	16.1324	1.207699	
R010312	RUSH0088.D	1311-5120	5000	204.6	10	2046.33166	3.31097602		2.4971	0.0125	14.78549	1.169836	
H010405int	HILL0059.D	1311-5121	10000	437.953237	10	4379.53237	3.64142774		2.5098	0.0125	27.99261	1.447043	
H010405int	HILL0060.D	1311-5122	10000	503.530248	10	5035.30248	3.70202556		2.5067	0.0125	24.75714	1.3937	
H010405int	HILL0061.D	1311-5123	10000	423.370937	10	4233.70937	3.62672104		2.4949	0.0125	28.89039	1.460753	
R010412	RUSH0032.D	1311-5124	50000	235.149546	100	23514.9546	4.37134414		2.4978	0.0125	132.5419	2.122353	
R010412	RUSH0033.D	1311-5125	50000	235.642534	100	23564.2534	4.37225368		2.4892	0.0125	132.7522	2.123042	
R010412	RUSH0034.D	1311-5126	50000	230.804348	100	23080.4348	4.36324399		2.507	0.0125	134.222	2.127824	
R010412	RUSH0040.D	1311-5130	500	24.842763	2	49.685526	1.69622989		2.4862	0.0125	2.26407	0.35489	
R010412	RUSH0041.D	1311-5131	500	18.057138	2	36.114276	1.55767891	1.65237912	2.5069	0.0125	2.313045	0.364184	0.35713
R010412	RUSH0046.D	1311-5132	500	25.246348	2	50.492696	1.70322856		2.4965	0.0125	2.250687	0.352315	
R010412	RUSH0048.D	1311-5133	2000	112.234056	2	224.468112	2.35115465		2.4891	0.0125	8.916536	0.950198	
R010412	RUSH0049.D	1311-5134	2000	133.554484	2	267.108968	2.42668847	2.40394289	2.4995	0.0125	8.666188	0.937828	0.940441
R010412	RUSH0050.D	1311-5135	2000	135.817446	2	271.634892	2.43398556		2.5191	0.0125	8.576303	0.9333	
R010412	RUSH0052.D	1311-5136	5000	85.185002	10	851.85002	2.93036314		2.4977	0.0125	20.75985	1.317224	
R010412	RUSH0053.D	1311-5137	5000	76.528101	10	765.28101	2.88382094	2.89787562	2.5107	0.0125	21.08336	1.32394	1.322587
R010412	RUSH0054.D	1311-5138	5000	75.760492	10	757.60492	2.87944279		2.4999	0.0125	21.21282	1.326598	
R010412	RUSH0060.D	1311-5139	10000	157.041946	10	1570.41946	3.19601567		2.5016	0.0125	42.12095	1.624498	
R010412	RUSH0061.D	1311-5140	10000	155.224502	10	1552.24502	3.19096028	3.19196961	2.5128	0.0125	42.02361	1.623493	1.624958
R010412	RUSH0062.D	1311-5141	10000	154.501564	10	1545.01564	3.18893288		2.4954	0.0125	42.35285	1.626883	
R010412	RUSH0064.D	1311-5142	50000	109.207528	100	10920.7528	4.03825258		2.4892	0.0125	196.244	2.292796	
R010412	RUSH0065.D	1311-5143	50000	99.477125	100	9947.7125	3.99772323	4.006738	2.4837	0.0125	201.5757	2.304438	2.300469
R010412	RUSH0066.D	1311-5144	50000	96.43578	100	9643.578	3.9842382		2.5041	0.0125	201.4517	2.304171	

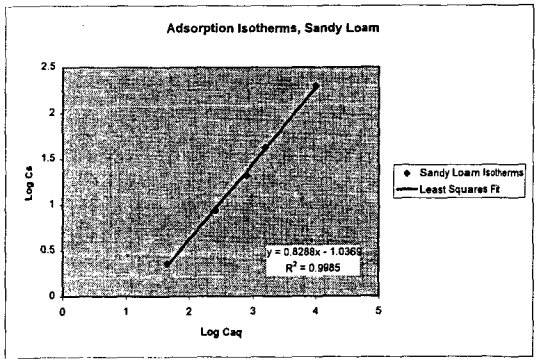
			Adsorption						plot to determine K and n				
			C_o						m_{soil}	V_o	$C^{aq}_s(aq)$		
RUN	Data Source File	Sample Description	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L), analytical result x dilution factor.	Sample Dilution Factor	$C^{aq}_{aq}(eq)$	$Log\ C^{aq}_{aq}(eq)$	average	Quantity of the soil phase, expressed in dry mass of soil, g	Initial Volume of the $CaCl_2$ test solution in contact with the soil (L)	The content of the test substance adsorbed on the soil at the time the analysis was performed, $Log = [(C_o - C^{aq}_{aq}(eq))]V_o/m_{soil}$	$Log\ C^{aq}_s(eq)$	average
R010412	RUSH0076.D	1311-5148	500	123.282427	2	246.564854	2.39193117		2.4887	0.0125	1.272929	0.104804	
R010412	RUSH0077.D	1311-5149	500	90.083398	2	180.166796	2.25567476		2.4762	0.0125	1.614536	0.208048	
R010412	RUSH0078.D	1311-5150	500	152.507888	2	305.015776	2.4843223		2.5142	0.0125	0.969415	-0.01349	
R010412	RUSH0084.D	1311-5151	2000	470.275971	2	940.551942	2.97338278		2.4733	0.0125	5.354426	0.728713	
R010412	RUSH0085.D	1311-5152	2000	481.768175	2	963.53635	2.9838681		2.4881	0.0125	5.207104	0.716596	
R010412	RUSH0086.D	1311-5153	2000	461.552835	2	923.10567	2.96525142		2.5389	0.0125	5.301973	0.724438	
R010412	RUSH0088.D	1311-5154	5000	259.294489	10	2592.94489	3.41379329		2.4954	0.0125	12.05746	1.081256	
R010412	RUSH0089.D	1311-5155	5000	273.244648	10	2732.44648	3.43655166		2.488	0.0125	11.39245	1.056617	
R010412	RUSH0090.D	1311-5156	5000	260.405148	10	2604.05148	3.41564957		2.4932	0.0125	12.01242	1.07963	
H010405int	HILL0063.D	1311-5157	10000	56.237274	100	5623.7274	3.75002426		2.4859	0.0125	22.00547	1.342531	
H010405int	HILL0064.D	1311-5158	10000	86.08401	100	8608.401	3.93492249		2.4782	0.0125	7.019202	0.846288	
H010405int	HILL0065.D	1311-5159	10000	87.843563	100	8784.3563	3.94370994		2.4815	0.0125	6.123533	0.787002	
H010329	HILL0104.D	1311-5160	50000	289.002164	100	28900.2164	4.46090109		2.4861	0.0125	106.0888	2.025669	
H010329	HILL0105.D	1311-5161	50000	258.39539	100	25839.539	4.41228476		2.4832	0.0125	121.6196	2.085004	
H010329	HILL0106.D	1311-5162	50000	266.033394	100	26603.3394	4.42493616		2.5025	0.0125	116.8664	2.06769	
H010329	HILL0116.D	1311-5166	500	79.696368	2	159.392736	2.20246853		2.4857	0.0125	1.712834	0.233715	
H010329	HILL0117.D	1311-5167	500	93.228986	2	186.457972	2.27058096	2.25054038	2.4859	0.0125	1.576602	0.197722	0.208281
H010329	HILL0118.D	1311-5168	500	94.960207	2	189.920414	2.27857165		2.483	0.0125	1.561013	0.193406	
H010329	HILL0120.D	1311-5169	2000	344.862674	2	689.725348	2.83867619		2.5149	0.0125	6.512558	0.813752	
H010329	HILL0121.D	1311-5170	2000	340.759666	2	681.519332	2.83347818	2.84517782	2.5171	0.0125	6.547618	0.816083	0.810292
H010329	HILL0122.D	1311-5171	2000	365.047259	2	730.094518	2.86337909		2.5098	0.0125	6.324734	0.801042	
H010329	HILL0124.D	1311-5172	5000	203.797939	10	2037.97939	3.30919979		2.5183	0.0125	14.70248	1.167391	
H010329	HILL0129.D	1311-5173	5000	187.700144	10	1877.00144	3.27346461	3.29053565	2.5071	0.0125	15.57077	1.19231	1.182327
H010329	HILL0130.D	1311-5174	5000	194.510276	10	1945.10276	3.28894255		2.481	0.0125	15.39146	1.18728	
H010329	HILL0132.D	1311-5175	10000	371.323196	10	3713.23196	3.56975208		2.4972	0.0125	31.46909	1.497884	
H010329	HILL0133.D	1311-5176	10000	371.174203	10	3711.74203	3.56957778	3.57669	2.4823	0.0125	31.66548	1.500586	1.494279
H010329	HILL0134.D	1311-5177	10000	389.708739	10	3897.08739	3.59074014		2.5008	0.0125	30.5048	1.484368	
H010329	HILL0136.D	1311-5178	50000	183.266658	100	18326.6658	4.26308346		2.479	0.0125	159.7082	2.203327	
H010329	HILL0141.D	1311-5179	50000	178.291848	100	17829.1848	4.25113149	4.25617417	2.483	0.0125	161.9554	2.209395	2.207121
H010329	HILL0142.D	1311-5180	50000	179.600507	100	17960.0507	4.25430756		2.4772	0.0125	161.6742	2.208641	

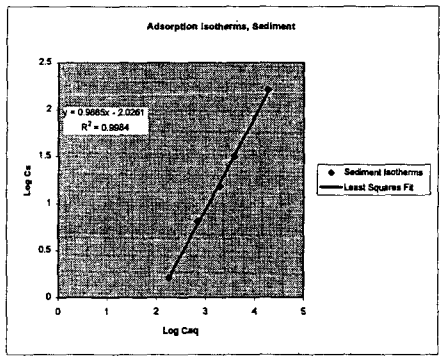
			Adsorption						plot to determine K and n				
			C_o			C^{aas}_{eq}(eq)			m_{soil}	V_o	C^{aas}_s(eq)		
RUN	Data Source File	Sample Description	Total mass concentration of the test pollutant in contact with the soil (ug/L)	Mass concentration of the substance in the aqueous phase of the system that has been in contact with the soil for sufficient time to reach equilibrium (ug/L)	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time that the analysis was performed (ug/L), analytical result x dilution factor.	Log C^{aas}_{eq}(eq)	average	Quantity of the soil phase, expressed in dry mass of soil, g	Initial Volume of the $CaCl_2$ test solution in contact with the soil (L)	The content of the test substance adsorbed on the soil at the time the analysis were performed, ug/g =[C_o - C^{aas}_{eq}(eq)]XV_o/m_{soil}	Log C^{aas}_s(eq)	average
H010412	HILL0031.D	1311-5184	500	< 10.0	2	N/A	N/A		2.4775	0.0125	N/A	N/A	
H010412	HILL0032.D	1311-5185	500	< 10.0	2	N/A	N/A		2.5291	0.0125	N/A	N/A	
H010412	HILL0033.D	1311-5186	500	< 10.0	2	N/A	N/A		2.4698	0.0125	N/A	N/A	
H010412	HILL0035.D	1311-5187-	2000	< 10.0	2	N/A	N/A		2.5167	0.0125	N/A	N/A	
H010412	HILL0036.D	1311-5188	2000	< 10.0	2	N/A	N/A		2.4888	0.0125	N/A	N/A	
H010412	HILL0037.D	1311-5189	2000	< 10.0	2	N/A	N/A		2.5137	0.0125	N/A	N/A	
H010412	HILL0039.D	1311-5190	5000	11.327739	10	113.27739	2.05414323		2.4922	0.0125	24.51008	1.389345	
H010412	HILL0040.D	1311-5191	5000	14.704513	10	147.04513	2.16745065		2.4678	0.0125	24.58138	1.390606	
H010412	HILL0045.D	1311-5192	5000	< 10.0	10	N/A	N/A		2.4617	0.0125	N/A	N/A	
H010329	HILL0164.D	1311-5193	10000	587.353982	10	5873.53982	3.76889992		2.5128	0.0125	20.5272	1.31233	
H010329	HILL0165.D	1311-5194	10000	375.628336	10	3756.28336	3.57475835		2.4925	0.0125	31.31252	1.495718	
H010329	HILL0170.D	1311-5195	10000	624.651539	10	6246.51539	3.79563781		2.5286	0.0125	18.55515	1.268465	
H010329	HILL0172.D	1311-5196	50000	25.400564	100	2540.0564	3.40484336		2.5086	0.0125	236.4862	2.373806	
H010329	HILL0173.D	1311-5197	50000	16.589279	100	1658.9279	3.21982751		2.5167	0.0125	240.1015	2.380395	
H010329	HILL0174.D	1311-5198	50000	20.475802	100	2047.5802	3.31124092		2.4766	0.0125	242.0275	2.383865	
H010412	HILL0047.D	1311-5202	500	< 10.0	2	N/A	N/A		2.5318	0.0125	N/A	N/A	
	HILL0048.D	1311-5203	500	< 10.0	2	N/A	N/A	N/A	2.4861	0.0125	N/A	N/A	N/A
	HILL0049.D	1311-5204	500	< 10.0	2	N/A	N/A		2.5256	0.0125	N/A	N/A	
	HILL0051.D	1311-5205	2000	< 10.0	2	N/A	N/A		2.5299	0.0125	N/A	N/A	
	HILL0052.D	1311-5206	2000	< 10.0	2	N/A	N/A	N/A	2.5129	0.0125	N/A	N/A	N/A
	HILL0053.D	1311-5207	2000	< 10.0	2	N/A	N/A		2.5416	0.0125	N/A	N/A	
	HILL0059.D	1311-5208	5000	14.126747	10	141.26747	2.15004217		2.507	0.0125	24.22583	1.384279	
	HILL0060.D	1311-5209	5000	11.420901	10	114.20901	2.05770037	2.10387127	2.5432	0.0125	24.01399	1.380464	1.382372
	HILL0061.D	1311-5210	5000	< 10.0	10	N/A	N/A		2.5467	0.0125	N/A	N/A	
	HILL0063.D	1311-5211	10000	14.879531	10	148.79531	2.17258924		2.5184	0.0125	48.89615	1.689275	
	HILL0064.D	1311-5212	10000	23.895092	10	238.95092	2.37830871	2.31312921	2.4757	0.0125	49.28429	1.692708	1.689476
	HILL0065.D	1311-5213	10000	24.461872	10	244.61872	2.38848969		2.5102	0.0125	48.57871	1.686446	
H010329	HILL0204.D	1311-5214	50000	8.468139	100	846.8139	2.92778798		2.537	0.0125	242.1816	2.384141	
H010329	HILL0205.D	1311-5215	50000	7.309995	100	730.9995	2.86391708	2.89288055	2.4996	0.0125	246.3844	2.391613	2.386901
H010329	HILL0206.D	1311-5216	50000	7.707909	100	770.7909	2.88693658		2.5362	0.0125	242.6327	2.384949	

		Adsorption						plot to determine K and n					
		C_o			$C^{mass}_{aq}(eq)$			m_{soil}	V_o	$C^{mass}_{s}(aq)$			
RUN	Data Source File / Sample Description	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass concentration of the substance in the test solution at the beginning of the adsorption phase (ug/L) - determined during the analytical phase	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time that the analysis was performed (ug/L), analytical result x dilution factor.	Log $C^{mass}_{aq}(eq)$	average	Quantity of the soil phase, expressed in dry mass of soil, g	Initial Volume of the $CaCl_2$ test solution in contact with the soil (L)	The content of the test substance adsorbed on the soil at the time the analysis were performed, ug/g = $[(C_o - C^{mass}_{aq}(eq))]xV_o/m_{soil}$	Log $C^{mass}_{s}(eq)$	average	

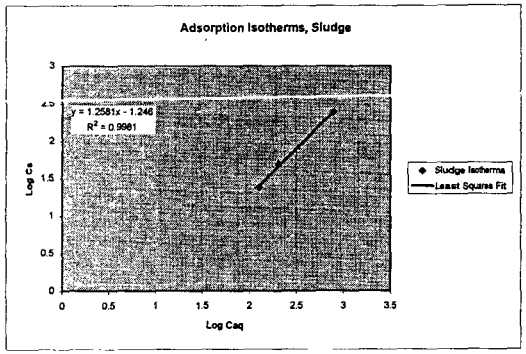








		Adsorption						plot to determine K and n					
		C_o			$C^{mass}_{aq}(eq)$			m_{soil}	V_o	$C^{mass}_{s}(aq)$			
RUN	Data Source File / Sample Description	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass concentration of the substance in the aqueous phase at the time that the analysis was performed (ug/L); analytical result x dilution factor.	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at the time that the analysis was performed (ug/L); analytical result x dilution factor.	Log $C^{mass}_{aq}(eq)$	average	Quantity of the soil phase, expressed in dry mass of soil, g	Initial Volume of the $CaCl_2$ test solution in contact with the soil (L)	The content of the test substance adsorbed on the soil at the time the analysis was performed, ug/g $=[(C_o - C^{mass}_{aq}(eq))]V_o/m_{soil}$	Log $C^{mass}_{s}(aq)$	average	



	Log Kads	Kads	1/n	n
clay	-1.2515	0.05604024	0.884	1.131222
clay loam	-1.3762	0.04205329	0.8407	1.189485
sandy loam	-1.0369	0.09185441	0.8288	1.206564
sediment	-2.0261	0.00941573	0.9885	1.011634
sludge	-1.246	0.05675446	1.2581	0.794849

3M Environmental Laboratory

sorption/Desorption

Sample Description	RUN	Data Source File	Desorption							
				Sample Dilution Factor	C^{aq}_{eq} (eq)	$Log\ C^{aq}_{eq}$(eq)		C^{aq}_{eq}(eq)	$Log\ C^{aq}_{eq}$(eq)	
E00-1311-5004										
E00-1311-5005										
E00-1311-5006										
E00-1311-5007										
E00-1311-5008										
E00-1311-5009										
E00-1311-5010										
E00-1311-5011										
E00-1311-5012										
E00-1311-5013										
E00-1311-5014										
E00-1311-5015										
1311-5016										
1311-5017										
1311-5018										
E00-1311-5022	R010312	RUSH0094.D	11.4	2	22.859932			N/A		
E00-1311-5023	R010312	RUSH0095.D	10.7	2	21.361226			N/A		
E00-1311-5024	R010312	RUSH0100.D	12.0	2	23.972482			N/A		
1311-5025	R010312	RUSH0102.D	27.7	2	55.333452			N/A		
1311-5026	R010312	RUSH0103.D	28.9	2	57.871888			N/A		
1311-5027	R010312	RUSH0104.D	23.3	2	46.678566			N/A		
1311-5028	R010312	RUSH0106.D	56.0	2	111.971874			N/A		
1311-5029	R010312	RUSH0107.D	31.7	2	63.459182			N/A		
1311-5030	R010312	RUSH0108.D	57.8	2	115.682498			N/A		
1311-5031	R010312	RUSH0114.D	65.7	2	131.442794			N/A		
1311-5032	R010312	RUSH0115.D	66.9	2	133.71768			N/A		
1311-5033	R010312	RUSH0116.D	71.2	2	142.403456			N/A		
1311-5034	R010312	RUSH0118.D	144.7	2	289.416628			N/A		
1311-5035	R010312	RUSH0119.D	235.1	2	470.189976			N/A		
1311-5036	R010312	RUSH0120.D	189.2	2	378.410064			N/A		

Sample Description	RUN	Data Source File	Description								
					C^{aq}_{eq}			C^{aq}_{eq}		
			Mass recovered in the adsorption phase (ug/L)	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at adsorption equilibrium (ug/L) analytical result x dilution factor	Log C^{aq}_{eq}		Mass concentration of the substance in the aqueous phase at desorption equilibrium (ug/L, post correction)	Log C^{aq}_{eq}	
1311-5040										
1311-5041										
1311-5042										
1311-5043										
1311-5044S1										
1311-5045										
1311-5046										
1311-5047										
1311-5048										
1311-5049										
1311-5050-1S										
1311-5051										
1311-5052										
1311-5053										
1311-5054										
1311-5058	R010312	RUSH0130.D	10.9	2	21.87378	1.33992384		5.3445614	0.72791207	
1311-5059	R010312	RUSH0131.D	11.9	2	23.89896	1.378379002	1.493715829	5.27526343	0.72224415	0.72042173
1311-5060	R010312	RUSH0132.D	29.0	2	57.922146	1.762844644		5.14172636	0.71110896	
1311-5061	R010312	RUSH0134.D	75.7	2	151.367756	2.180033373		20.8700746	1.319524	
1311-5062	H010313	HILL0031.D	66.6	2	133.222922	2.124578955	2.111184944	20.8068022	1.31820534	1.31921844
1311-5063	H010313	HILL0032.D	53.4	2	106.891336	2.028942505		20.8894009	1.31992599	
1311-5064	H010313	HILL0034.D	114.7	2	229.32978	2.360460454		50.9477454	1.70712497	
1311-5065	H010313	HILL0035.D	120.2	2	240.421642	2.380973559	2.439004249	51.5790063	1.71247297	1.70871815
1311-5066	H010313	HILL0036.D	188.2	2	376.338572	2.575578733		50.8811005	1.7065565	
1311-5067	H010313	HILL0038.D	438.9	2	877.85928	2.943424904		98.176486	1.99200748	
1311-5068	H010313	HILL0039.D	417.8	2	835.577968	2.92198698	2.896452664	97.403101	1.98857278	1.99380444
1311-5069	H010313	HILL0040.D	333.4	2	666.72403	2.823946108		100.191999	2.00083304	
1311-5070	R010402a	RUSH0041.D	450.789701	10	4507.89701	3.653973985		475.813128	2.67743642	
1311-5071	R010402a	RUSH0042.D	305.703229	10	3057.03229	3.485300026	3.556700752	480.602804	2.6817863	2.67754223
1311-5072	R010402a	RUSH0043.D	339.490983	10	3394.90983	3.530828244		471.415624	2.67340397	

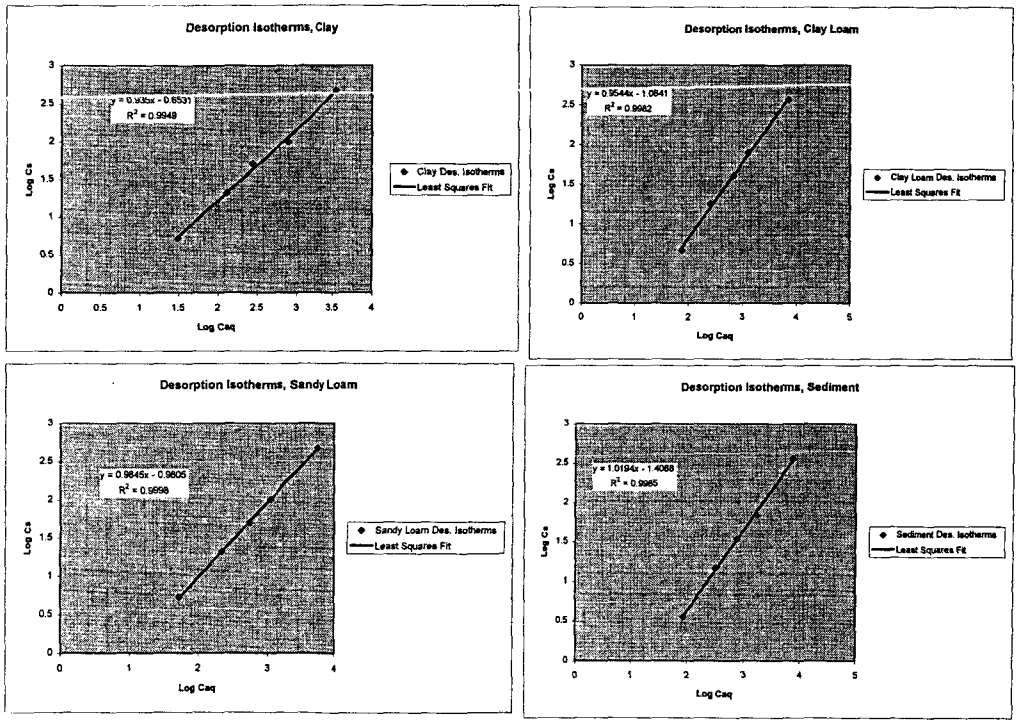
Sample Description	RUN	Data Source File	Description							
					C_{eq}			C_{eq}		
			Mass concentration of the substance in the supernatant of the sample (mg/L) analytical result (solution)	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at adsorption equilibrium (mg/L) analytical result x dilution factor	Log C_{eq}	Average	Mass concentration of the substance at the soil at desorption equilibrium (mg/kg) (soil correction)	Log C_{eq}	Average
E00-1311-5074										
1311-5077										
1311-5078										
1311-5079										
1311-5080										
1311-5081										
1311-5082										
1311-5083										
1311-5084										
1311-5085										
1311-5086										
1311-5087										
1311-5088										
1311-5089										
1311-5090										
1311-5094	H010313	HILL0054.D	41.7	2	83.4636	1.921497113		4.60792298	0.66350521	
1311-5095	H010313	HILL0059.D	35.2	2	70.340604	1.847206093	1.869783028	4.52640225	0.65575315	0.66527289
1311-5096	H010313	HILL0060.D	34.6	2	69.286062	1.840645878		4.74854221	0.6765603	
1311-5097	H010313	HILL0062.D	127.1	2	254.19996	2.405175478		18.9364277	1.27729805	
1311-5098	H010313	HILL0063.D	126.1	2	252.13575	2.401634428	2.413293696	17.4863271	1.2426986	1.25574133
1311-5099	H010313	HILL0064.D	135.5	2	271.063588	2.433071183		17.6696256	1.24722735	
1311-5100	H010313	HILL0066.D	334.7	2	669.374834	2.82566938		39.9532215	1.6015518	
1311-5101	H010313	HILL0067.D	327.4	2	654.78009	2.816095465	2.82561949	41.6449404	1.61956225	1.61418658
1311-5102	H010313	HILL0068.D	342.0	2	684.0591	2.835093625		41.8259395	1.6214457	
1311-5103	R010402a	RUSH0053.D	121.844173	10	1218.44173	3.085804765		78.7442284	1.89621873	
1311-5104	R010402a	RUSH0054.D	127.233095	10	1272.33095	3.104600092	3.105436562	80.2732144	1.90457065	1.9015017
1311-5105	R010402a	RUSH0055.D	133.630265	10	1336.30265	3.12590483		80.115345	1.90371571	
1311-5106	R010402a	RUSH0057.D	67.811262	100	6781.1262	3.831301827		366.079747	2.5635757	
1311-5107	R010402a	RUSH0062.D	62.727361	100	6272.7361	3.797457017	3.851545057	373.362359	2.57213053	2.56791704
1311-5108	R010402a	RUSH0063.D	84.309464	100	8430.9464	3.925876328		369.866401	2.56804488	

			Description							
					C^{aq}_{eq}(eq)			C^{ads}_{eq}(eq)		
Sample Description	RUN	Data Source File	Mass concentration of the substance in the aqueous phase at equilibrium (ug/L) and final result = dilution factor	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at equilibrium (ug/L) and final result = dilution factor	Log C^{aq}_{eq}(eq)	Average	Mass concentration of the substance in the bed of desorption equilibrium (ug/kg) (wet conversion)	Log C^{ads}_{eq}(eq)	Average
E00-1311-1904										
1311-5113										
1311-5114										
1311-5115										
1311-5116										
1311-5117										
1311-5118										
1311-5119										
1311-5120										
1311-5121										
1311-5122										
1311-5123										
1311-5124										
1311-5125										
1311-5126										
1311-5130	R010402a	RUSH0069.D	26.676048	2	53.352096	1.727151486		5.36068975	0.72922067	
1311-5131	tube broke			2	0	N/A	1.727265272	N/A	N/A	0.72885081
1311-5132	R010402a	RUSH0070.D	26.69003	2	53.38006	1.727379058		5.35156682	0.72848095	
1311-5133	R010402a	RUSH0076.D	107.113316	2	214.226632	2.33087346		21.1183248	1.32465947	
1311-5134	R010402a	RUSH0077.D	111.267815	2	222.57563	2.347477611	2.335201081	20.5480371	1.31277034	1.31674988
1311-5135	R010402a	RUSH0078.D	106.223884	2	212.447768	2.327252173		20.550379	1.31281984	
1311-5136	R010402a	RUSH0080.D	289.873014	2	579.746028	2.763237782		48.9504753	1.68975691	
1311-5137	R010402a	RUSH0081.D	249.672867	2	499.345734	2.698401344	2.734533837	50.4478992	1.70284309	1.69796871
1311-5138	R010402a	RUSH0082.D	276.014812	2	552.029624	2.741962384		50.26968	1.70130612	
1311-5139	R010402a	RUSH0084.D	105.377362	10	1053.77362	3.022747322		100.104259	2.00045255	
1311-5140	R010402a	RUSH0085.D	114.123143	10	1141.23143	3.057373724	3.031322711	99.9198468	1.99965176	2.00077955
1311-5141	R010402a	RUSH0090.D	103.239784	10	1032.39784	3.013847087		100.5158	2.00223433	
1311-5142	R010402a	RUSH0092.D	491.927102	10	4919.27102	3.69190075		463.787518	2.66631906	
1311-5143	R010402a	RUSH0093.D	509.061312	10	5090.61312	3.706770092	3.70293156	475.033485	2.67672422	2.67441332
1311-5144	R010402a	RUSH0094.D	513.007645	10	5130.07645	3.710123837		478.846891	2.68019667	

Sample Description	RUN	Data Source File	Description								
E00-1311-1004											
1311-5149											
1311-5150											
1311-5151											
1311-5152											
1311-5153											
1311-5154											
1311-5155											
1311-5156											
1311-5157											
1311-5158											
1311-5159											
1311-5160											
1311-5161											
1311-5162											
1311-5166	R010402b	RUSH0120.D	42.932438	2	85.864876	1.933815547		3.82579656	0.58272187		
1311-5167	R010402b	RUSH0121.D	43.120798	2	86.241596	1.935716785	1.933397994	3.48562156	0.54228023	0.55414187	
1311-5168	R010402b	RUSH0122.D	42.621787	2	85.243574	1.93066165		3.44685883	0.5374235		
1311-5169	R010402b	RUSH0124.D	160.750438	2	321.500876	2.507182161		14.7804527	1.16968774		
1311-5170	R010402b	RUSH0125.D	149.070084	2	298.140168	2.474420492	2.500687444	15.0004346	1.17610384	1.16625972	
1311-5171	R010402b	RUSH0126.D	165.740897	2	331.481794	2.520459681		14.2228812	1.15298758		
1311-5172	R010402b	RUSH0128.D	380.66422	2	761.32844	2.881572053		33.2462776	1.52174303		
1311-5173	R010402b	RUSH0129.D	374.889478	2	749.778956	2.874933247	2.878834671	35.2992039	1.54776491	1.53520511	
1311-5174	R010402b	RUSH0134.D	379.287662	2	758.575324	2.879998711		34.3642923	1.5361074		
1311-5175	R010402b	RUSH0136.D	174.993474	10	1749.93474	3.243021853		69.8251162	1.84401167		
1311-5176	R010402b	RUSH0137.D	163.325091	10	1633.25091	3.213052909	3.232495207	70.3787407	1.84744149	1.84040647	
1311-5177	R010402b	RUSH0138.D	174.345547	10	1743.45547	3.241410859		67.5719189	1.82976625		
1311-5178	R010402b	RUSH0140.D	74.086291	100	7408.6291	3.869737853		358.559734	2.55456152		
1311-5179	R010402b	RUSH0141.D	79.446466	100	7944.6466	3.900074583	3.87351103	362.13999	2.55887648	2.55846465	
1311-5180	R010402b	RUSH0142.D	70.91215	100	7091.215	3.850720653		364.716956	2.56195595		

			Desorption							
					C^{aq}_{eq}(eq)			C^{ss}_{d}(eq)		
Sample Description	RUN	Data Source File	Mass concentration of the substance in the aqueous phase at desorption equilibrium (ug/L)	Sample Dilution Factor	Mass concentration of the substance in the aqueous phase at desorption equilibrium (ug/L), analytical result x dilution factor	Log C^{aq}_{eq}(eq)	Flagging	Mass concentration of the substance in the soil at desorption equilibrium (ug/g) (wet condition)	Log C^{ss}_{d}(eq)	Flagging
E00-1311-5004										
1311-5185										
1311-5186										
1311-5187-										
1311-5188										
1311-5189										
1311-5190										
1311-5191										
1311-5192										
1311-5193										
1311-5194										
1311-5195										
1311-5196										
1311-5197										
1311-5198										
1311-5202	R010402b	RUSH0152.D	< 10.0	2	N/A	N/A		N/A	N/A	
1311-5203	R010402b	RUSH0153.D	< 10.0	2	N/A	N/A	N/A	N/A	N/A	N/A
1311-5204	R010402b	RUSH0154.D	< 10.0	2	N/A	N/A		N/A	N/A	
1311-5205	R010402b	RUSH0156.D	< 10.0	2	N/A	N/A		N/A	N/A	
1311-5206	R010402b	RUSH0157.D	< 10.0	2	N/A	N/A	< 1.0	N/A	N/A	N/A
1311-5207	H010402a	HILL0032.D	< 5.0	2	< 10	< 1.0		N/A	N/A	
1311-5208	H010402a	HILL0034.D	9.070036	2	18.140072	1.258639006		60.6437095	1.78278576	
1311-5209	H010402a	HILL0035.D	9.465038	2	18.930076	1.277152358	1.235344845	60.9793448	1.78518275	1.78398426
1311-5210	H010402a	HILL0036.D	7.399684	2	14.799368	1.170243169		N/A	N/A	
1311-5211	H010402a	HILL0038.D	16.467401	2	32.934802	1.517655057		122.976588	2.08982244	
1311-5212	H010402a	HILL0039.D	20.404356	2	40.808712	1.610752888	1.575556454	121.807067	2.08567249	2.0869818
1311-5213	H010402a	HILL0040.D	19.825832	2	39.651664	1.598261417		121.744813	2.08545047	
1311-5214	H010402a	HILL0046.D	105.301943	2	210.603886	2.32346638		613.377164	2.7877276	
1311-5215	H010402a	HILL0047.D	92.717039	2	185.434078	2.268189549	2.269679595	614.935187	2.78882934	2.78837188
1311-5216	H010402a	HILL0048.D	82.480799	2	164.961598	2.217382855		614.552079	2.78855869	

Sample Description	RUN	Data Source File	Desorption								
				Sample Dilution Factor	C^{aq}_{wt}(eq)	Log C^{aq}_{wt}(eq)		C^{aq}_{wt}(eq)	Log C^{aq}_{wt}(eq)	
E00-1311-5004										



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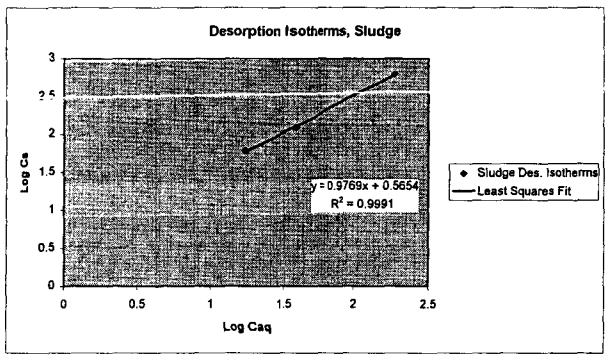
Sample Description	RUN	Data Source File	Desorption								
E00-1311-5004											



	Log Kdes	Kdes	1/n	n
clay	-0.653	0.222330989	0.935	1.069518717
clay loam	-1.0841	0.082394837	0.9544	1.047778709
sandy loam	-0.9811	0.104447969	1.012	0.988142292
sediment	-1.4088	0.03901216	1.0164	0.98386462
sludge	1.4693	29.46456271	0.3272	3.056234719

BACK TO MAIN

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Tier III "Mass Balance Calculations"

			Adsorb Step				Desorb Step		Extraction					Mass Balance
			V_o	C_o	$C^{init}_{aq}(C_o)$		$C^{init}_{aq}(eq)$					C^{ext}_{o}		
Run	Sample Data File	Sample Description	Beta (Volume of the $CaCl_2$ test solution in contact with the soil (L)	Beta (Mass concentration of the test solution in contact with the soil (ug/L)	Mass concentration of the substance in the aqueous phase at the time that the analysis was performed (ug/L, analytical result x dilution factor, (S1 Samples)	Mass of the substance in the aqueous phase at the time t that the analysis was performed (ug), mass concentration x initial volume. (-S1 Samples)	Mass concentration of the substance in the aqueous phase at time t that the analysis was performed (ug/L, analytical result x dilution factor)	Mass of the substance in the aqueous phase at the time t that the analysis was performed (ug), mass concentration x initial volume. (-S2 Samples)	Volum e of Methanol Extraction Solution, L	Mass concentration of the substance in the Solvent extract at the time that the analysis was performed (ug/L, analytical result x dilution factor)	Sample Dilution Factor	Mass concentration of the substance in the organic phase after spiked on (ug/L, analytical result x dilution factor	Mass of the substance in the organic phase at the time t that the analysis was performed (ug), mass concentration x initial volume. (-S3 Samples)	Total Recovery of Test Substance, %
H010316	HILL0064.D	-5022-S3	0.0125	500.00	373.65555	4.670694375	22.859932	0.28574915	0.0120	< 5.0	2.00	< 10	< 0.12	79.3%
H010316	HILL0065.D	-5023-S3	0.0125	500.00	386.188014	4.827350175	21.361226	0.267015325	0.0120	< 5.0	2.00	< 10	< 0.12	81.5%
H010316	HILL0066.D	-5024-S3	0.0125	500.00	400.617808	5.0077226	23.972482	0.299656025	0.0120	< 5.0	2.00	< 10	< 0.12	84.9%
H010316	HILL0095.D	-5025-S3	0.0125	2000.00	1599.3353	19.99169125	55.333452	0.69166815	0.0120	< 5.0	2.00	< 10	< 0.12	82.7%
H010316	HILL0096.D	-5026-S3	0.0125	2000.00	1529.15715	19.11446438	57.871888	0.7233986	0.0120	< 5.0	2.00	< 10	< 0.12	79.4%
H010316	HILL0101.D	-5027-S3	0.0125	2000.00	1432.64531	17.90806638	46.678566	0.583482075	0.0120	< 5.0	2.00	< 10	< 0.12	74.0%
H010316	HILL0131.D	-5028-S3	0.0125	5000.00	3913.70145	48.92126813	111.971874	1.399648425	0.0120	5.6	2.00	11.162708	0.1339525	80.7%
H010316	HILL0132.D	-5029-S3	0.0125	5000.00	2300.94744	28.761843	63.459182	0.793239775	0.0120	< 5.0	2.00	< 10	< 0.12	47.3%
H010316	HILL0133.D	-5030-S3	0.0125	5000.00	3873.38636	48.4173295	115.682498	1.446031225	0.0120	6.0	2.00	12.051664	0.14461997	80.0%
R010320	RUSH0055.D	1311-5031-S3	0.0125	10000.00	8281.3209	103.5165113	131.442794	1.643034925	0.0120	6.217634	2.00	12.435268	0.14922322	84.2%
R010320	RUSH0056.D	1311-5032-S3	0.0125	10000.00	8510.8629	106.3857863	133.71768	1.671471	0.0120	5.939702	2.00	11.879404	0.14255285	86.6%
R010320	RUSH0061.D	1311-5033-S3	0.0125	10000.00	8037.8359	100.4729488	142.403456	1.7800432	0.0120	7.871924	2.00	15.743848	0.18892618	82.0%
R010320	RUSH0083.D	1311-5034-S3	0.0125	50000.00	40454.91	505.686375	289.416628	3.61770785	0.0120	22.65781	2.00	45.315612	0.54378734	81.6%
R010320	RUSH0084.D	1311-5035-S3	0.0125	50000.00	41416.3251	517.7040638	470.189976	5.8773747	0.0120	16.95932	2.00	33.918642	0.4070237	83.8%
R010320	RUSH0089.D	1311-5036-S3	0.0125	50000.00	43397.8954	542.4736925	378.410064	4.7301258	0.0120	46.22885	2.00	92.457708	1.1094925	87.7%
H010316	HILL0068.D	-5058-S3	0.0125	500	63.66312	0.795789	21.87378	0.27342225	0.0120	42.6	2.00	85.102702	1.02123242	33.4%
H010316	HILL0073.D	-5059-S3	0.0125	500	68.302058	0.853775725	23.89896	0.298737	0.0120	48.9	2.00	97.702736	1.17243283	37.2%
H010316	HILL0074.D	-5060-S3	0.0125	500	65.5835	0.81979375	57.922146	0.724026825	0.0120	57.0	2.00	113.917176	1.36700611	46.6%
H010316	HILL0103.D	-5061-S3	0.0125	2000	270.25587	3.378198375	151.367756	1.89209695	0.0120	159.8	2.00	319.525044	3.83430053	36.4%
H010316	HILL0104.D	-5062-S3	0.0125	2000	282.215634	3.527695425	133.222922	1.665286525	0.0120	203.2	2.00	406.39942	4.87679304	40.3%
H010316	HILL0105.D	-5063-S3	0.0125	2000	285.940358	3.574254475	106.891338	1.3361417	0.0120	180.8	2.00	361.644534	4.33973441	37.0%
H010316	HILL0135.D	-5064-S3	0.0125	5000	831.7832	10.39729	229.32978	2.86662225	0.0120	461.1	2.00	922.14921	11.0657905	38.9%
H010316	HILL0136.D	-5065-S3	0.0125	5000	778.17175	9.727146875	240.421642	3.005270525	0.0120	285.5	2.00	570.906	6.850872	31.3%
R010320	RUSH0033.D	13113-5066-S3	0.0125	5000	778.50458	9.743807	376.338572	4.70423215	0.0120	346.5268	2.00	693.053616	8.31664339	36.4%
R010320	RUSH0063.D	1311-5067-S3	0.0125	10000	1795.32634	22.44157925	877.85928	10.973241	0.0120	298.1447	2.00	596.289326	7.15547191	32.5%
R010320	RUSH0064.D	1311-5068-S3	0.0125	10000	1871.04255	23.38803188	835.577968	10.4447246	0.0120	360.5895	2.00	721.17904	8.65414848	34.0%
R010320	RUSH0065.D	1311-5069-S3	0.0125	10000	1716.79339	21.45991738	666.72403	8.334050375	0.0120	337.662	2.00	675.32394	8.10388728	30.3%
R010405	RUSH0032.D	1311-5070-S3	0.0125	50000	10122.5113	126.5313913	4507.89701	56.34871263	0.0120	41.69038	100.00	4169.0375	50.02845	37.3%
R010405	RUSH0033.D	1311-5071-S3	0.0125	50000	10329.5006	129.1187575	3057.03229	38.21290363	0.0120	35.16084	100.00	3516.084	42.193008	33.5%
R010405	RUSH0034.D	1311-5072-S3	0.0125	50000	10926.5554	136.5819425	3394.90983	42.43637288	0.0120	68.33123	100.00	6833.1228	81.9974736	41.8%

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			Adsorb Step				Desorb Step		Extraction					Mass Balance
			V_w	C_w	C^{aq}_{init}		C^{aq}_{eq}					C^{ex}_{ex}		
Run	Sample Data File	Sample Description	Initial Volume of the CaCl2 test solution in contact with the soil (L)	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L) and/or (mol/L) and/or dilution factor (S1 Samples)	Mass of the substance in the aqueous phase at the time t that the analysis was performed (ug), mass concentration x initial volume. (-S1 Samples)	Mass concentration of the substance in the aqueous phase at desorption equilibrium (ug/L) and/or (mol/L) and/or dilution factor	Mass of the substance in the aqueous phase at the time t that the analysis was performed (ug), mass concentration x initial volume. (-S2 Samples)	Volume of Methanol Extraction Solution, L	Mass concentration of the substance in the methanol extract at the time that the analysis was performed (ug/L) and/or (mol/L) and/or dilution factor	Sample Dilution Factor	Mass concentration of the substance in the organic phase after extraction (ug/L) analysis result x dilution factor	Mass of the substance in the organic phase at the time t that the analysis was performed (ug), mass concentration x initial volume. (-S3 Samples)	Total Recovery of Test Substance, %
R010316	HILL0076.D	-5094-S3	0.0125	500	98.0234	1.2252925	83.4636	1.043295	0.0120	56.4	2.00	112.729402	1.35275282	57.9%
R010316	HILL0077.D	-5095-S3	0.0125	500	109.688412	1.37110515	70.340604	0.87925755	0.0120	45.9	2.00	91.818554	1.10178425	53.6%
R010316	HILL0078.D	-5096-S3	0.0125	500	92.307848	1.1538456	69.286062	0.866075775	0.0120	57.9	2.00	115.768982	1.38920378	54.5%
R010316	HILL0107.D	-5097-S3	0.0125	2000	382.498934	4.781236675	254.19996	3.1774995	0.0120	161.9	2.00	323.876842	3.8865197	47.4%
R010316	HILL0108.D	-5098-S3	0.0125	2000	499.850758	6.248134475	252.13575	3.151696875	0.0120	173.0	2.00	345.931234	4.15117481	54.2%
R010316	HILL0109.D	-5099-S3	0.0125	2000	478.255482	5.978193525	271.063568	3.38829485	0.0120	194.7	2.00	389.428652	4.67314382	56.2%
R010320	RUSH0035.D	1311-5100-S3	0.0125	5000	1537.57868	19.2197335	669.374834	8.367185425	0.0120	467.7061	2.00	935.41224	11.2249469	62.1%
R010320	RUSH0036.D	1311-5101-S3	0.0125	5000	1408.05483	17.60068538	654.78009	8.184751125	0.0120	371.419	2.00	742.838078	8.91405694	55.5%
R010320	RUSH0037.D	1311-5102-S3	0.0125	5000	1380.49807	17.25622588	664.0591	8.55073875	0.0120	485.0679	2.00	970.135824	11.6416299	59.9%
R010405	RUSH0040.D	1311-5103-S3	0.0125	10000	3209.84698	40.12308725	1218.44173	15.23052163	0.0120	< 25	100.00	<2500	< 30	44.3%
R010405	RUSH0041.D	1311-5104-S3	0.0125	10000	3067.92472	38.349059	1272.33095	15.90413688	0.0120	< 25	100.00	<2500	< 30	43.4%
R010405	RUSH0046.D	1311-5105-S3	0.0125	10000	3054.47082	38.18088525	1336.30265	16.70378313	0.0120	< 25	100.00	<2500	< 30	43.9%
R010405	RUSH0048.D	1311-5106-S3	0.0125	50000	18011.5457	225.1443213	6781.1262	84.7640775	0.0120	50.04657	100.00	5004.6567	60.0558804	59.2%
R010405	RUSH0049.D	1311-5107-S3	0.0125	50000	17602.9055	220.0363188	6272.7361	78.40920125	0.0120	61.22001	100.00	6122.001	73.464012	59.5%
R010405	RUSH0050.D	1311-5108-S3	0.0125	50000	17018.9084	212.736355	8430.9464	105.38683	0.0120	65.68839	100.00	6568.8394	78.8260728	63.5%
H010316	HILL0080.D	-5130-S3	0.0125	500	49.685526	0.621069075	53.352096	0.6669012	0.0120	111.6	2.00	223.252154	2.67902585	63.5%
H010316	Tube broke	E00-1311-5131	0.0125	500	36.114276	0.45142845	0	0	0.0120		2.00	0	0	N/A
H010316	HILL0081.D	-5132-S3	0.0125	500	50.492696	0.6311587	53.38006	0.66725075	0.0120	98.8	2.00	197.580186	2.37096223	58.7%
H010316	HILL0115.D	-5133-S3	0.0125	2000	224.468112	2.8058514	214.226532	2.6778329	0.0120	393.7	2.00	787.427278	9.44912734	59.7%
H010316	HILL0116.D	-5134-S3	0.0125	2000	267.108968	3.3388621	222.57563	2.782195375	0.0120	375.2	2.00	750.306384	9.00367661	60.5%
H010316	HILL0117.D	-5135-S3	0.0125	2000	271.634892	3.39543615	212.447768	2.6555971	0.0120	361.3	2.00	722.513148	8.67015778	58.9%
R010405	RUSH0052.D	1311-5136-S3	0.0125	5000	851.85002	10.64812525	579.746028	7.24682535	0.0120	182.5679	10.00	1825.67883	21.908146	63.7%
R010405	RUSH0053.D	1311-5137-S3	0.0125	5000	765.28101	9.566012625	499.345734	6.241821675	0.0120	190.9566	10.00	1909.58582	22.9147898	62.0%
R010405	RUSH0054.D	1311-5138-S3	0.0125	5000	757.60492	9.4700615	552.029624	6.9003703	0.0120	242.2879	10.00	2422.87857	29.0745428	72.7%
R010405	RUSH0060.D	1311-5139-S3	0.0125	10000	1570.41946	19.63024325	1053.77362	13.17217025	0.0120	< 25	1000.00	< 25000	< 300	26.2%
R010405	RUSH0061.D	1311-5140-S3	0.0125	10000	1552.24502	19.40306275	1141.23143	14.26539288	0.0120	< 25	1000.00	< 25000	< 300	26.9%
R010405	RUSH0062.D	1311-5141-S3	0.0125	10000	1545.01564	19.3126955	1032.39784	12.904973	0.0120	< 25	1000.00	< 25000	< 300	25.8%
R010405	RUSH0064.D	1311-5142-S3	0.0125	50000	10920.7528	136.50941	4919.27102	61.49088775	0.0120	< 25	1000.00	< 25000	< 300	31.7%
R010405	RUSH0065.D	1311-5143-S3	0.0125	50000	9947.7125	124.3464063	5090.61312	63.632664	0.0120	< 25	1000.00	< 25000	< 300	30.1%
R010405	RUSH0066.D	1311-5144-S3	0.0125	50000	9843.576	120.544725	5130.07645	64.1259553	0.0120	< 25	1000.00	< 25000	< 300	29.5%

			Adsorb Step				Desorb Step		Extraction					Mass Balance
			V_o	C_o	$C^{aqs}_{eq}(C_e)$		$C^{aqs}_{eq}(eq)$					C^{ext}_{ot}		
Run	Sample Data File	Sample Description	Initial Volume of the (aq) test solution in contact with the soil (L)	Initial mass concentration of the test solution in contact with the soil (ug/L)	Mass concentration of the substance in the aqueous phase at the time t that the analysis was performed (ug/L, analytical result, results below LOQ = 0)	Mass of the substance in the aqueous phase at the time t that the analysis was performed (ug), mass concentration x initial volume. (-S1 Samples)	Mass concentration of the substance in the aqueous phase at desorption equilibrium (ug/L), analytical result x dilution factor (-S2 Samples)	Mass of the substance in the aqueous phase at the time t that the analysis was performed (ug), mass concentration x initial volume. (-S2 Samples)	Volume of Methanol Extraction Solution, L	Mass concentration of the substance in the Methanol extract of the soil that the analysis was performed (ug/L, analytical result x dilution factor	Sample Dilution Factor	Mass concentration of the substance in the organic phase after extraction (ug/L, analytical result x dilution factor	Mass of the substance in the organic phase at the time t that the analysis was performed (ug), mass concentration x initial volume. (-S3 Samples)	Total Recovery of Test Substance, %
R010316	HILL0087.D	-5166-S3	0.0125	500	159.392736	1.9924092	85.864876	1.07331095	0.0120	142.0	2.00	283.93903	3.40726836	103.6%
R010316	HILL0088.D	-5167-S3	0.0125	500	186.457972	2.33072465	86.241596	1.07801995	0.0120	99.1	2.00	198.252332	2.37902798	82.6%
R010316	HILL0089.D	-5168-S3	0.0125	500	189.920414	2.374005175	85.243574	1.065546675	0.0120	65.7	2.00	131.385636	1.57662763	80.3%
R010316	HILL0119.D	-5169-S3	0.0125	2000	689.725348	8.62156685	321.500878	4.01876095	0.0120	298.3	2.00	596.55581	7.15866972	79.2%
R010316	HILL0120.D	-5170-S3	0.0125	2000	681.519332	8.51899165	298.140168	3.7267521	0.0120	267.4	2.00	534.720604	6.41664965	74.6%
R010316	HILL0121.D	-5171-S3	0.0125	2000	730.094518	9.126181475	331.481794	4.143522425	0.0120	327.9	2.00	655.794326	7.86953191	84.6%
R010320	RUSH0047.D	1311-5172-S3	0.0125	5000	2037.97939	25.47474238	761.32844	9.5166055	0.0120	>501	2.00	> 1002	> 12.024	56.0%
R010320	RUSH0048.D	1311-5173-S3	0.0125	5000	1877.00144	23.462518	749.778956	9.37223695	0.0120	491.643	2.00	983.285956	11.7994315	71.4%
R010320	RUSH0049.D	1311-5174-S3	0.0125	5000	1945.10276	24.3137845	758.575324	9.48219155	0.0120	496.1706	2.00	992.34126	11.9080951	73.1%
R010405	RUSH0068.D	1311-5175-S3	0.0125	10000	3713.23196	46.4153995	1749.93474	21.87418425	0.0120	< 25	1000.00	< 25000	< 300	54.6%
R010405	RUSH0069.D	1311-5176-S3	0.0125	10000	3711.74203	46.39677538	1633.25091	20.41563638	0.0120	< 25	1000.00	< 25000	< 300	53.4%
R010405	RUSH0074.D	1311-5177-S3	0.0125	10000	3897.08739	48.71359238	1743.45547	21.79319338	0.0120	< 25	1000.00	< 25000	< 300	56.4%
R010405	RUSH0076.D	1311-5178-S3	0.0125	50000	18326.6658	229.0833225	7408.6291	92.60786375	0.0120	< 25	1000.00	< 25000	< 300	51.5%
R010405	RUSH0077.D	1311-5179-S3	0.0125	50000	17629.1848	222.86481	7944.6488	99.3080825	0.0120	< 25	1000.00	< 25000	< 300	51.5%
R010405	RUSH0078.D	1311-5180-S3	0.0125	50000	17960.0507	224.5006338	7091.215	88.6401875	0.0120	< 25	1000.00	< 25000	< 300	50.1%
H010316	HILL0091.D	-5202-S3	0.0125	500	N/A	N/A	N/A	N/A	0.0120	36.3	2.00	72.665522	0.87198626	N/A
H010316	HILL0092.D	-5203-S3	0.0125	500	N/A	N/A	N/A	N/A	0.0120	25.2	2.00	50.441822	0.60530186	N/A
H010316	HILL0093.D	-5204-S3	0.0125	500	N/A	N/A	N/A	N/A	0.0120	30.1	2.00	60.17112	0.72205344	N/A
H010316	HILL0123.D	-5205-S3	0.0125	2000	N/A	N/A	N/A	N/A	0.0120	97.6	2.00	195.243738	2.34292486	N/A
H010316	HILL0124.D	-5206-S3	0.0125	2000	N/A	N/A	N/A	N/A	0.0120	127.8	2.00	255.649826	3.06779791	N/A
H010316	HILL0129.D	-5207-S3	0.0125	2000	N/A	N/A	< 10	N/A	0.0120	98.9	2.00	197.725208	2.37270247	N/A
R010320	RUSH0051.D	1311-5208-S3	0.0125	5000	141.26747	1.765843375	18.140072	0.2267509	0.0120	332.321	2.00	664.64198	7.97570376	15.9%
R010320	RUSH0052.D	1311-5209-S3	0.0125	5000	114.20901	1.427612625	18.930076	0.23662595	0.0120	244.5963	2.00	489.192588	5.87031106	12.1%
R010320	RUSH0053.D	1311-5210-S3	0.0125	5000	N/A	N/A	14.799368	0.1849921	0.0120	251.8495	2.00	503.699054	6.04438865	N/A
R010320	RUSH0079.D	1311-5211-S3	0.0125	10000	148.79531	1.859941375	32.934802	0.411685025	0.0120	490.2051	2.00	980.410204	11.7649224	11.2%
R010320	RUSH0080.D	1311-5212-S3	0.0125	10000	238.95092	2.9868865	40.808712	0.5101089	0.0120	494.7347	2.00	989.469372	11.8736325	12.3%
R010320	RUSH0081.D	1311-5213-S3	0.0125	10000	244.61872	3.057734	39.651664	0.4956458	0.0120	>501	2.00	N/A	N/A	N/A
R010405	RUSH0080.D	1311-5214-S3	0.0125	50000	846.8139	10.58517375	210.603886	2.632548575	0.0120	47.25497	100.00	4725.4966	56.7059592	11.2%
R010405	RUSH0081.D	1311-5215-S3	0.0125	50000	730.9995	9.13749375	185.434078	2.317925975	0.0120	57.65922	100.00	5765.9224	69.1910688	12.9%
R010405	RUSH0082.D	1311-5216-S3	0.0125	50000	770.7909	9.63488625	164.961598	2.062019975	0.0120	66.77067	100.00	6677.067	80.124804	14.7%

3M Environmental Laboratory

Appendix E: Quality Control Sample Data

This appendix includes processed matrix spike, control, and replicate sample data from the present study. The runs summarized are the following:

- s001120a
- s001120b
- s001122a
- t010122
- s001211
- t001215
- s001207
- H001214a&b
- t010123
- t010124
- t010125
- R010320
- H010405ext
- H010405int
- H010404ext
- R010404ext
- R010405
- R010402a&b
- H010329
- H010319a
- R010312
- R010329a&b
- H010402a&b
- H010222
- R010222
- H010309
- R010309
- H010315
- H010313
- R010314
- H010311
- H010316
- H010412
- R010412

Crossed out data was not used.

Quality Control Sample Data

Instrument: Rush
Run ID: R010405

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Dilution Factor, Nx
RUSH0032.D	1311-5070-S3	41.690375				10
RUSH0033.D	1311-5071-S3	35.16084		36.31		100
RUSH0034.D	1311-5072-S3	68.331228				100
RUSH0035.D	1311-5072MS-S3	268.971058	200		100.32	100
RUSH0036.D	1311-5091-S3	< 25				2
RUSH0037.D	1311-5092-S3	25.536054		N/A		2
RUSH0038.D	1311-5093-S3	< 25				2
RUSH0039.D	1311-5093MS-S3	226.293398	200		113.15	2
RUSH0040.D	1311-5103-S3	< 25				100
RUSH0041.D	1311-5104-S3	< 25		N/A		100
RUSH0046.D	1311-5105-S3	< 25				100
RUSH0047.D	1311-5105MS-S3	221.075617	200		110.54	100
RUSH0048.D	1311-5106-S3	50.046567				100
RUSH0049.D	1311-5107-S3	61.22001		13.66		100
RUSH0050.D	1311-5108-S3	65.688394				100
RUSH0051.D	1311-5108MS-S3	266.885789	200		100.60	100
RUSH0052.D	1311-5136-S3	182.567883				10
RUSH0053.D	1311-5137-S3	190.956582		15.75		10
RUSH0054.D	1311-5138-S3	242.287857				10
RUSH0055.D	1311-5138MS-S3	422.825169	200		90.27	10
RUSH0060.D	1311-5139-S3	< 25				1000
RUSH0061.D	1311-5140-S3	< 25		N/A		1000
RUSH0062.D	1311-5141-S3	< 25				1000
RUSH0063.D	1311-5141MS-S3	197.948699	200		98.97	1000
RUSH0064.D	1311-5142-S3	< 25				1000
RUSH0065.D	1311-5143-S3	< 25		N/A		1000
RUSH0066.D	1311-5144-S3	< 25				1000
RUSH0067.D	1311-5144MS-S3	199.992825	200		100.00	1000
RUSH0068.D	1311-5175-S3	< 25				1000
RUSH0069.D	1311-5176-S3	< 25		N/A		1000
RUSH0074.D	1311-5177-S3	< 25				1000
RUSH0075.D	1311-5177MS-S3	187.321981	200		93.66	1000
RUSH0076.D	1311-5178-S3	< 25				1000
RUSH0077.D	1311-5179-S3	< 25		N/A		1000
RUSH0078.D	1311-5180-S3	< 25				1000
RUSH0079.D	1311-5180MS-S3	191.566565	200		95.78	1000
RUSH0080.D	1311-5214-S3	47.254966				100
RUSH0081.D	1311-5215-S3	57.659224		17.06		100
RUSH0082.D	1311-5216-S3	66.77067				100
RUSH0083.D	1311-5216MS-S3	243.807595	200		88.52	100

Analytical Run Information*:

Acceptable Quant Range: 25 - 1002ng/ml
Calibration Curve r^2: 0.9880787
Target Analyte: PFOS
Internal Standard: THPFOS

CMC 5/15/01

Quality Control Sample Data

Instrument: Hillary
Run ID: H010319a

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Dilution Factor, Nx
HILL0032.D	1311-4124-S2	< 2.5				2
HILL0033.D	1311-4125-S2	< 2.5		N/A		2
HILL0034.D	1311-4126-S2	< 2.5				2
HILL0035.D	1311-4148-S2	30.5				2
HILL0036.D	1311-4149-S2	32.4		3.48		2
HILL0037.D	1311-4150-S2	30.4				2
HILL0038.D	1311-4124-S3	< 2.5				2
HILL0039.D	1311-4125-S3	< 2.5		N/A		2
HILL0040.D	1311-4126-S3	< 2.5				2
HILL0041.D	1311-4148-S3	39.1				2
HILL0046.D	1311-4149-S3	38.5		7.12		2
HILL0047.D	1311-4150-S3	43.7				2
HILL0048.D	1311-4124-S4	< 2.5				2
HILL0049.D	1311-4125-S4	4.9		N/A		2
HILL0050.D	1311-4148-S4	131.4				2
HILL0051.D	1311-4149-S4	78.0		48.20		2
~~HILL0052.D~~	~~1311-4150-S4*~~	~~212.6~~				2
HILL0053.D	1311-4124-S5	< 2.5				2
HILL0054.D	1311-4125-S5	< 2.5		N/A		2
HILL0059.D	1311-4126-S5	< 2.5				2
HILL0060.D	1311-4148-S5	72.9				2
HILL0061.D	1311-4149-S5	63.0		11.52		2
HILL0062.D	1311-4150-S5	79.4				2
HILL0063.D	1311-4124-S6	< 2.5				2
HILL0064.D	1311-4125-S6	< 2.5		N/A		2
HILL0065.D	1311-4126-S6	< 2.5				2
HILL0066.D	1311-4126MS-S6	235.6	200		117.78	2
HILL0067.D	1311-4148-S6	59.1				2
HILL0068.D	1311-4149-S6	64.6		4.90		2
HILL0073.D	1311-4150-S6	64.2				2
HILL0074.D	1311-4150MS-S6	298.1	200		116.99	2
HILL0075.D	1311-4124-S7	< 2.5				2
HILL0076.D	1311-4125-S7	< 2.5		N/A		2
HILL0077.D	1311-4126-S7	4.5				2
HILL0078.D	1311-4148-S7	60.4				2
HILL0079.D	1311-4149-S7	63.2		8.86		2
HILL0080.D	1311-4150-S7	71.4				2
HILL0085.D	1311-4124-S8	< 2.5				2
HILL0086.D	1311-4125-S8	2.5		N/A		2
HILL0087.D	1311-4126-S8	< 2.5				2
HILL0088.D	1311-4126MS-S8	236.3	200		118.13	2
HILL0089.D	1311-4148-S8	58.6				2
HILL0090.D	1311-4149-S8	62.8		26.99		2
HILL0091.D	1311-4150-S8	36.4				2
HILL0092.D	1311-4150MS-S8	296.8	207		125.82	2
						2

Analytical Run Information*:

Acceptable Quant Range: 2.5 - 1002ng/ml
Calibration Curve r^2: 0.9999964
Target Analyte: PFOS
Internal Standard: THPFOS

*Point thrown out. Compared to the values obtained from other aliquots of the same sample during this run (30.4, 43.7, 79.4, 64.2, 71.4, and 36.4) the value obtained for the -S4 sample (212.6) is about three times higher. May be a bad injection.

Quality Control Sample Data

Instrument: Hillary
Run ID: H010329

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Dilution Factor, Nx
~~HILL0032.D~~	~~1311-5121-S1~~	~~399.825266~~				10
~~HILL0033.D~~	~~1311-5122-S1~~	~~453.35486~~		~~8.96~~		10
~~HILL0034.D~~	~~1311-5123-S1~~	~~382.609732~~				10
~~HILL0035.D~~	~~1311-5123MS-S1~~	~~643.615819~~	~~200~~		~~130.50~~	10
~~HILL0036.D~~	~~1311-5124-S1~~	~~224.470405~~				100
~~HILL0037.D~~	~~1311-5125-S1~~	~~221.907322~~		~~2.20~~		100
~~HILL0038.D~~	~~1311-5126-S1~~	~~215.083484~~				100
~~HILL0039.D~~	~~1311-5126MS-S1~~	~~436.310254~~	~~200~~		~~110.61~~	100
~~HILL0040.D~~	~~1311-5127-S1~~	~~23.3661~~				2
~~HILL0045.D~~	~~1311-5128-S1~~	~~< 5.0~~		~~N/A~~		2
~~HILL0046.D~~	~~1311-5129-S1~~	~~< 5.0~~				2
~~HILL0047.D~~	~~1311-5129MS-S1~~	~~204.958161~~	~~200~~		~~102.48~~	2
~~HILL0048.D~~	~~1311-5130-S1~~	~~28.340212~~				2
~~HILL0049.D~~	~~1311-5131-S1~~	~~23.704879~~		~~9.09~~		2
~~HILL0050.D~~	~~1311-5132-S1~~	~~27.084011~~				2
~~HILL0051.D~~	~~1311-5132MS-S1~~	~~237.353025~~	~~200~~		~~105.13~~	2
~~HILL0052.D~~	~~1311-5133-S1~~	~~123.477318~~				2
~~HILL0053.D~~	~~1311-5134-S1~~	~~136.448469~~		~~5.43~~		2
~~HILL0054.D~~	~~1311-5135-S1~~	~~135.209282~~				2
~~HILL0059.D~~	~~1311-5135MS-S1~~	~~344.472584~~	~~200~~		~~104.63~~	2
~~HILL0060.D~~	~~1311-5136-S1~~	~~80.902407~~				10
~~HILL0061.D~~	~~1311-5137-S1~~	~~72.093141~~		~~6.72~~		10
~~HILL0062.D~~	~~1311-5138-S1~~	~~72.245309~~				10
~~HILL0063.D~~	~~1311-5138MS-S1~~	~~280.443205~~	~~200~~		~~104.10~~	10
~~HILL0064.D~~	~~1311-5139-S1~~	~~152.007424~~				10
~~HILL0065.D~~	~~1311-5140-S1~~	~~152.068622~~		~~0.03~~		10
~~HILL0066.D~~	~~1311-5141-S1~~	~~151.988367~~				10
~~HILL0067.D~~	~~1311-5141MS-S1~~	~~372.803966~~	~~200~~		~~110.41~~	10
~~HILL0068.D~~	~~1311-5142-S1~~	~~101.132842~~				100
~~HILL0073.D~~	~~1311-5143-S1~~	~~91.097132~~		~~9.36~~		100
~~HILL0074.D~~	~~1311-5144-S1~~	~~83.982398~~				100
~~HILL0075.D~~	~~1311-5144MS-S1~~	~~293.952591~~	~~200~~		~~104.99~~	100
~~HILL0076.D~~	~~1311-5145-S1~~	~~7.350762~~				2
~~HILL0077.D~~	~~1311-5146-S1~~	~~< 5.0~~		~~N/A~~		2
~~HILL0078.D~~	~~1311-5147-S1~~	~~< 5.0~~				2
~~HILL0079.D~~	~~1311-5147MS-S1~~	~~207.155473~~	~~200~~		~~103.59~~	2
~~HILL0080.D~~	~~1311-5148-S1~~	~~127.090591~~				2
~~HILL0081.D~~	~~1311-5149-S1~~	~~91.248293~~		~~25.02~~		2
~~HILL0082.D~~	~~1311-5150-S1~~	~~152.914052~~				2
~~HILL0087.D~~	~~1311-5150MS-S1~~	~~375.532471~~	~~200~~		~~111.31~~	2
~~HILL0088.D~~	~~1311-5151-S1~~	~~468.208125~~				2
~~HILL0089.D~~	~~1311-5152-S1~~	~~479.68979~~		~~2.39~~		2
~~HILL0090.D~~	~~1311-5153-S1~~	~~457.347883~~				2
~~HILL0091.D~~	~~1311-5153MS-S1~~	~~752.940397~~	~~200~~		~~147.80~~	2
~~HILL0092.D~~	~~1311-5154-S1~~	~~252.843631~~				10
~~HILL0093.D~~	~~1311-5155-S1~~	~~259.504126~~		~~4.79~~		10
~~HILL0094.D~~	~~1311-5156-S1~~	~~250.800624~~				10
~~HILL0095.D~~	~~1311-5156MS-S1~~	~~484.377132~~	~~200~~		~~116.79~~	10
~~HILL0096.D~~	~~1311-5157-S1~~	~~519.497843~~				10
~~HILL0101.D~~	~~1311-5158-S1~~	~~783.993656~~		~~22.21~~		10
~~HILL0102.D~~	~~1311-5159-S1~~	~~792.427278~~				10
~~HILL0103.D~~	~~1311-5159MS-S1~~	~~4161.187994~~	~~200~~		~~184.39~~	10
HILL0104.D	1311-5160-S1	289.002164				100
HILL0105.D	1311-5161-S1	258.39539		5.88		100
HILL0106.D	1311-5162-S1	266.033394				100
HILL0107.D	1311-5162MS-S1	480.91678	200		107.44	100
HILL0108.D	1311-5163-S1	36.247649				2
HILL0109.D	1311-5164-S1	6.963474		95.84		2
HILL0110.D	1311-5165-S1	< 5.0				2
HILL0115.D	1311-5165MS-S1	213.508112	200		106.75	2
HILL0116.D	1311-5166-S1	79.696368				2
HILL0117.D	1311-5167-S1	93.228986		9.36		2
HILL0118.D	1311-5168-S1	94.960207				2
HILL0119.D	1311-5168MS-S1	221.371684	200		113.21	2

HILL0120.D	1311-5169-S1	344.862674				2
HILL0121.D	1311-5170-S1	340.759666		3.71		2
HILL0122.D	1311-5171-S1	365.047259				2
HILL0123.D	1311-5171MS-S1	636.371356	200		135.66	2
HILL0124.D	1311-5172-S1	203.797939				10
HILL0129.D	1311-5173-S1	187.700144		4.14		10
HILL0130.D	1311-5174-S1	194.510276				10
HILL0131.D	1311-5174MS-S1	422.244664	200		113.87	10
HILL0132.D	1311-5175-S1	371.323196				10
HILL0133.D	1311-5176-S1	371.174203		2.82		10
HILL0134.D	1311-5177-S1	389.708739				10
HILL0135.D	1311-5177MS-S1	645.346514	200		127.82	10
HILL0136.D	1311-5178-S1	183.266658				100
HILL0141.D	1311-5179-S1	178.291848		1.43		100
HILL0142.D	1311-5180-S1	179.600507				100
HILL0143.D	1311-5180MS-S1	387.145146	200		103.77	100
~~HILL0144.D~~	~~1311-5181-S1~~	~~14.936969~~				2
~~HILL0145.D~~	~~1311-5182-S1~~	~~< 5.0~~		~~N/A~~		2
~~HILL0146.D~~	~~1311-5183-S1~~	~~< 5.0~~				2
~~HILL0147.D~~	~~1311-5183MS-S1~~	~~< 5.0~~	~~200~~		~~N/A~~	2
~~HILL0148.D~~	~~1311-5184-S1~~	~~< 5.0~~				2
~~HILL0149.D~~	~~1311-5185-S1~~	~~< 5.0~~		~~N/A~~		2
~~HILL0150.D~~	~~1311-5186-S1~~	~~< 5.0~~				2
~~HILL0155.D~~	~~1311-5186MS-S1~~	~~106.737934~~	~~200~~		~~53.37~~	2
~~HILL0156.D~~	~~1311-5187-S1~~	~~6.657971~~				2
~~HILL0157.D~~	~~1311-5188-S1~~	~~< 5.0~~		~~14.82~~		2
~~HILL0158.D~~	~~1311-5189-S1~~	~~5.394641~~				2
~~HILL0159.D~~	~~1311-5189MS-S1~~	~~105.927346~~	~~200~~		~~50.27~~	2
~~HILL0160.D~~	~~1311-5190-S1~~	~~7.269909~~				10
~~HILL0161.D~~	~~1311-5191-S1~~	~~7.312199~~		~~0.41~~		10
~~HILL0162.D~~	~~1311-5192-S1~~	~~< 5.0~~				10
~~HILL0163.D~~	~~1311-5192MS-S1~~	~~164.426048~~	~~200~~		~~82.21~~	10
HILL0164.D	1311-5193-S1	587.353982				10
HILL0165.D	1311-5194-S1	375.628336		25.38		10
HILL0170.D	1311-5195-S1	624.651539				10
HILL0171.D	1311-5195MS-S1	947.574722	200		161.46	10
HILL0172.D	1311-5196-S1	25.400564				100
HILL0173.D	1311-5197-S1	16.589279		21.21		100
HILL0174.D	1311-5198-S1	20.475802				100
HILL0175.D	1311-5198MS-S1	236.975437	200		108.25	100
~~HILL0176.D~~	~~1311-5199-S1~~	~~< 5.0~~				2
~~HILL0177.D~~	~~1311-5200-S1~~	~~< 5.0~~		~~N/A~~		2
~~HILL0178.D~~	~~1311-5201-S1~~	~~< 5.0~~				2
~~HILL0179.D~~	~~1311-5201MS-S1~~	~~83.989118~~	~~200~~		~~41.99~~	2
~~HILL0184.D~~	~~1311-5202-S1~~	~~< 5.0~~				2
~~HILL0185.D~~	~~1311-5203-S1~~	~~< 5.0~~		~~N/A~~		2
~~HILL0186.D~~	~~1311-5204-S1~~	~~< 5.0~~				2
~~HILL0187.D~~	~~1311-5204MS-S1~~	~~< 5.0~~	~~200~~		~~N/A~~	2
~~HILL0188.D~~	~~1311-5205-S1~~	~~< 5.0~~				2
~~HILL0189.D~~	~~1311-5206-S1~~	~~< 5.0~~		~~N/A~~		2
~~HILL0190.D~~	~~1311-5207-S1~~	~~< 5.0~~				2
~~HILL0191.D~~	~~1311-5207MS-S1~~	~~98.175805~~	~~200~~		~~49.09~~	2
~~HILL0192.D~~	~~1311-5208-S1~~	~~8.279809~~				10
~~HILL0193.D~~	~~1311-5209-S1~~	~~6.849741~~		~~13.37~~		10
~~HILL0198.D~~	~~1311-5210-S1~~	~~< 5.0~~				10
~~HILL0199.D~~	~~1311-5210MS-S1~~	~~157.009364~~	~~200~~		~~78.50~~	10
~~HILL0200.D~~	~~1311-5211-S1~~	~~9.99566~~				10
~~HILL0201.D~~	~~1311-5212-S1~~	~~17.270751~~		~~30.40~~		10
~~HILL0202.D~~	~~1311-5213-S1~~	~~18.367852~~				10
~~HILL0203.D~~	~~1311-5213MS-S1~~	~~178.259892~~	~~200~~		~~79.95~~	10
HILL0204.D	1311-5214-S1	8.468139				100
HILL0205.D	1311-5215-S1	7.309995		7.52		100
HILL0206.D	1311-5216-S1	7.707909				100
HILL0207.D	1311-5216MS-S1	201.156105	200		96.72	100

Analytical Run Information*:
Acceptable Quant Range: 5 - 1002ng/ml
Calibration Curve r^2: 0.9925463
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Rush
Run ID: R010402 (A)

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Dilution Factor, Nx	
RUSH0037.D	1311-5016-S1	69.243301				1000	
RUSH0038.D	1311-5017-S1	63.879261		4.53		1000	
RUSH0039.D	1311-5018-S1	64.31529				1000	
RUSH0040.D	1311-5018MS-S1	236.736167	200		86.21	1000	
RUSH0041.D	1311-5070-S2	450.789701				10	
RUSH0042.D	1311-5071-S2	305.703229		20.78		10	
RUSH0043.D	1311-5072-S2	339.490983				10	
RUSH0048.D	1311-5072MS-S2	528.022186	200		94.27	10	
~~RUSH0049.D~~	~~1311-5091-S2~~	~~119.099375~~				2	Contaminated
~~RUSH0050.D~~	~~1311-5092-S2~~	~~42.675469~~		~~76.62~~		2	control
~~RUSH0051.D~~	~~1311-5093-S2~~	~~28.725867~~				2	blanks
~~RUSH0052.D~~	~~1311-5093MS-S2~~	~~229.851546~~	200		~~100.56~~	2	
RUSH0053.D	1311-5103-S2	121.844173				10	
RUSH0054.D	1311-5104-S2	127.233095		4.63		10	
RUSH0055.D	1311-5105-S2	133.630265				10	
RUSH0056.D	1311-5105MS-S2	315.491169	200		90.93	10	
RUSH0057.D	1311-5106-S2	67.811262				100	
RUSH0062.D	1311-5107-S2	62.727361		15.75		100	
RUSH0063.D	1311-5108-S2	84.309464				100	
RUSH0064.D	1311-5108MS-S2	273.509217	200		94.60	100	
RUSH0065.D	1311-5127-S2	< 5.0				2	
RUSH0066.D	1311-5128-S2	< 5.0		N/A		2	
RUSH0067.D	1311-5129-S2	< 5.0				2	
RUSH0068.D	1311-5129MS-S2	211.049083	200		105.52	2	
RUSH0069.D	1311-5130-S2	26.676048				2	
RUSH0070.D	1311-5132-S2	26.69003		0.04		2	
RUSH0071.D	1311-5132MS-S2	246.936174	200		110.12	2	
RUSH0076.D	1311-5133-S2	107.713316				2	
RUSH0077.D	1311-5134-S2	111.287815		2.50		2	
RUSH0078.D	1311-5135-S2	106.223884				2	
RUSH0079.D	1311-5135MS-S2	361.446659	200		127.61	2	
RUSH0080.D	1311-5136-S2	289.873014				2	
RUSH0081.D	1311-5137-S2	249.672867		7.51		2	
RUSH0082.D	1311-5138-S2	276.014812				2	
RUSH0083.D	1311-5138MS-S2	580.020253	200		152.00	2	
RUSH0084.D	1311-5139-S2	105.377362				10	
RUSH0085.D	1311-5140-S2	114.123143		5.36		10	
RUSH0090.D	1311-5141-S2	103.239784				10	
RUSH0091.D	1311-5141MS-S2	293.385505	200		95.07	10	
RUSH0092.D	1311-5142-S2	491.927102				10	
RUSH0093.D	1311-5143-S2	509.061312		2.22		10	
RUSH0094.D	1311-5144-S2	513.007645				10	
RUSH0095.D	1311-5144MS-S2	715.922726	200		101.46	10	
RUSH0096.D	1311-5163-S2	< 5.0				2	
RUSH0097.D	1311-5164-S2	< 5.0		N/A		2	
RUSH0098.D	1311-5165-S2	< 5.0				2	
RUSH0099.D	1311-5165MS-S2	204.824162	200		102.41		

Analytical Run Information*:
Acceptable Quant Range: 5 - 1002ng/ml
Calibration Curve r^2: 0.9997640
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Rush
Run ID: R010402 (b)

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Dilution Factor, Nx
RUSH0120.D	1313-5166-S2	42.932438				2
RUSH0121.D	1311-5167-S2	43.120798		0.59		2
RUSH0122.D	1311-5168-S2	42.621787				2
RUSH0123.D	1311-5168MS-S2	276.700865	200		117.04	2
RUSH0124.D	1311-5169-S2	160.750438				2
RUSH0125.D	1311-5170-S2	149.070084		5.40		2
RUSH0126.D	1311-5171-S2	165.740897				2
RUSH0127.D	1311-5171MS-S2	443.490256	200		138.87	2
RUSH0128.D	1311-5172-S2	380.66422				2
RUSH0129.D	1311-5173-S2	374.889478		0.80		2
RUSH0134.D	1311-5174-S2	379.287662				2
RUSH0135.D	1311-5174MS-S2	721.856858	200		171.28	2
RUSH0136.D	1311-5175-S2	174.993474				10
RUSH0137.D	1311-5176-S2	163.325091		3.84		10
RUSH0138.D	1311-5177-S2	174.345547				10
RUSH0139.D	1311-5177MS-S2	360.823329	200		93.24	10
RUSH0140.D	1311-5178-S2	74.086291				100
RUSH0141.D	1311-5179-S2	79.446466		5.77		100
RUSH0142.D	1311-5180-S2	70.91215				100
RUSH0143.D	1311-5180MS-S2	254.760727	200		91.92	100
RUSH0148.D	1311-5199-S2	< 10.0				2
RUSH0149.D	1311-5200-S2	< 10.0		N/A		2
RUSH0150.D	1311-5201-S2	< 10.0				2
RUSH0151.D	1311-5201MS-S2	170.997556	200		85.50	2
RUSH0152.D	1311-5202-S2	< 10.0				2
RUSH0153.D	1311-5203-S2	< 10.0		N/A		2
RUSH0154.D	1311-5204-S2	< 10.0				2
RUSH0155.D	1311-5204MS-S2	200.243175	200		100.12	2
RUSH0156.D	1311-5205-S2	< 10.0		N/A		2
RUSH0157.D	1311-5206-S2	< 10.0				2

Analytical Run Information*:

Acceptable Quant Range: 10 - 1002ng/ml
Calibration Curve r^2: 0.9989973
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Hillary
Run ID: H010405, external standard quant

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %		Dilution Factor, Nx
~~HILL0031.D~~	~~1311-5043-S1~~	~~90.797934~~					10
~~HILL0032.D~~	~~1311-5044-S1~~	~~55.441877~~		~~29.91~~			10
~~HILL0033.D~~	~~1311-5045-S1~~	~~103.495928~~					10
~~HILL0034.D~~	~~1311-5045MS-S1~~	~~267.397895~~	~~200~~		~~133.70~~		10
~~HILL0035.D~~	~~1311-5049-S1~~	~~42.120095~~				Quanted using	100
~~HILL0036.D~~	~~1311-5050-S1~~	~~53.947933~~		~~17.92~~		internal	100
~~HILL0037.D~~	~~1311-5051-S1~~	~~38.586671~~				standard, this	100
~~HILL0038.D~~	~~1311-5051MS-S1~~	~~209.446138~~	~~200~~		~~104.72~~	data not used	100
~~HILL0039.D~~	~~1311-5079-S1~~	~~96.758139~~					10
~~HILL0040.D~~	~~1311-5080-S1~~	~~122.688674~~		~~15.79~~			10
~~HILL0045.D~~	~~1311-5081-S1~~	~~92.307172~~					10
~~HILL0046.D~~	~~1311-5081MS-S1~~	~~249.138957~~	~~200~~		~~124.57~~		10
~~HILL0047.D~~	~~1311-5085-S1~~	~~54.84818~~					100
~~HILL0048.D~~	~~1311-5086-S1~~	~~54.51181~~		~~0.31~~			100
~~HILL0049.D~~	~~1311-5087-S1~~	~~54.656047~~					100
~~HILL0050.D~~	~~1311-5087MS-S1~~	~~224.611092~~	~~200~~		~~112.31~~		100
~~HILL0051.D~~	~~1311-5091-S1~~	~~40.300717~~					2
~~HILL0052.D~~	~~1311-5092-S1~~	~~8.044223~~		~~121.96~~			2
~~HILL0053.D~~	~~1311-5093-S1~~	~~2.182657~~					2
~~HILL0054.D~~	~~1311-5093MS-S1~~	~~182.278127~~	~~200~~		~~91.14~~		2
~~HILL0059.D~~	~~1311-5121-S1~~	~~422.251584~~					10
~~HILL0060.D~~	~~1311-5122-S1~~	~~483.17759~~		~~9.05~~			10
~~HILL0061.D~~	~~1311-5123-S1~~	~~408.790412~~					10
~~HILL0062.D~~	~~1311-5123MS-S1~~	~~546.166672~~	~~200~~		~~273.08~~		10
~~HILL0063.D~~	~~1311-5157-S1~~	~~55.410626~~					100
~~HILL0064.D~~	~~1311-5158-S1~~	~~91.075774~~		~~25.54~~			100
~~HILL0065.D~~	~~1311-5159-S1~~	~~89.142057~~					100
~~HILL0066.D~~	~~1311-5159MS-S1~~	~~254.385364~~	~~200~~		~~127.19~~		100
HILL0067.D	1311-5181-S1	27.424377					2
HILL0072.D	1311-5182-S1	< 10.0		#DIV/0!			2
HILL0073.D	1311-5183-S1	<10.0					2
HILL0074.D	1311-5183MS-S1	144.847675	200		72.42		2
HILL0075.D	1311-5199-S1	<10.0					2
HILL0076.D	1311-5200-S1	<10.0		N/A			2
HILL0077.D	1311-5201-S1	<10.0					2
HILL0078.D	1311-5201MS-S1	131.864428	200		65.93		2

Analytical Run Information*:

Acceptable Quant Range: 10 - 1002ng/ml
Calibration Curve r^2: 0.9979335
Target Analyte: PFOS
Internal Standard: NONE

Quality Control Sample Data

Instrument: Rush
Run ID: R010404, external standard quant

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Dilution Factor, Nx
RUSH0032.D	1311-4154-S2	< 10.0				2
RUSH0033.D	1311-4155-S2	< 10.0		N/A		2
RUSH0034.D	1311-4156-S2	< 10.0				2
RUSH0035.D	1311-4178-S2	< 10.0				2
RUSH0036.D	1311-4179-S2	< 10.0		N/A		2
RUSH0037.D	1311-4180-S2	< 10.0				2
RUSH0038.D	1311-4154-S3	< 10.0				2
RUSH0039.D	1311-4155-S3	< 10.0		N/A		2
RUSH0040.D	1311-4156-S3	< 10.0				2
RUSH0041.D	1311-4178-S3	< 10.0				2
RUSH0046.D	1311-4179-S3	< 10.0		N/A		2
RUSH0047.D	1311-4180-S3	< 10.0				2
RUSH0048.D	1311-4154-S4	< 10.0				2
RUSH0049.D	1311-4155-S4	< 10.0		N/A		2
RUSH0050.D	1311-4156-S4	< 10.0				2
RUSH0051.D	1311-4178-S4	< 10.0				2
RUSH0052.D	1311-4179-S4	< 10.0		N/A		2
RUSH0053.D	1311-4154-S5	< 10.0				2
RUSH0054.D	1311-4155-S5	< 10.0				2
RUSH0055.D	1311-4156-S5	< 10.0		N/A		2
RUSH0060.D	1311-4178-S5	< 10.0				2
RUSH0061.D	1311-4179-S5	< 10.0				2
RUSH0062.D	1311-4180-S5	< 10.0		N/A		2
RUSH0063.D	1311-4154-S6	< 10.0				2
RUSH0064.D	1311-4155-S6	< 10.0		N/A		2
RUSH0065.D	1311-4156-S6	< 10.0				2
RUSH0066.D	1311-4156MS-S6	184.786805	200		92.39	2
RUSH0067.D	1311-4178-S6	< 10.0				2
RUSH0068.D	1311-4179-S6	< 10.0		N/A		2
RUSH0069.D	1311-4180-S6	< 10.0				2
RUSH0074.D	1311-4180MS-S6	256.265166	200		128.13	2
RUSH0075.D	1311-4154-S7	< 10.0				2
RUSH0076.D	1311-4155-S7	< 10.0		N/A		2
RUSH0077.D	1311-4156-S7	< 10.0				2
RUSH0078.D	1311-4178-S7	< 10.0				2
RUSH0079.D	1311-4179-S7	< 10.0		N/A		2
RUSH0080.D	1311-4180-S7	< 10.0				2
RUSH0081.D	1311-4154-S8	< 10.0				2
RUSH0082.D	1311-4155-S8	< 10.0		N/A		2
RUSH0083.D	1311-4156-S8	< 10.0				2
RUSH0088.D	1311-4156MS-S8	198.880502	200		99.44	2
RUSH0089.D	1311-4178-S8	< 10.0				2
RUSH0090.D	1311-4179-S8	< 10.0		N/A		2
RUSH0091.D	1311-4180-S8	< 10.0				2
RUSH0092.D	1311-4180MS-S8	155.579696	200		77.79	2

Analytical Run Information*:

Acceptable Quant Range: 10 - 1002ng/ml
Calibration Curve r^2: 0.9913280
Target Analyte: PFOS
Internal Standard: NONE

Quality Control Sample Data

Instrument: Hillary
Run ID: H010404, external standard quant

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Dilution Factor, Nx
HILL0031.D	1311-4151-S1	<10.0				2
HILL0032.D	1311-4152-S1	<10.0		N/A		2
HILL0033.D	1311-4153-S1	<10.0				2
HILL0034.D	1311-4153MS-S1	168.305282	200		84.15	2
HILL0035.D	1311-4154-S1	<10.0				2
HILL0036.D	1311-4155-S1	<10.0		N/A		2
HILL0037.D	1311-4156-S1	<10.0				2
HILL0038.D	1311-4156MS-S1	157.148327	200		78.57	2
HILL0039.D	1311-4157-S1	<10.0				2
HILL0040.D	1311-4158-S1	<10.0		N/A		2
HILL0045.D	1311-4159-S1	<10.0				2
HILL0046.D	1311-4159MS-S1	173.055241	200		86.53	2
HILL0047.D	1311-4160-S1	<10.0				2
HILL0048.D	1311-4161-S1	<10.0		N/A		2
HILL0049.D	1311-4162-S1	<10.0				2
HILL0050.D	1311-4162MS-S1	165.193594	200		82.60	2
HILL0051.D	1311-4163-S1	<10.0				2
HILL0052.D	1311-4164-S1	<10.0		N/A		2
HILL0053.D	1311-4165-S1	<10.0				2
HILL0054.D	1311-4165MS-S1	166.210776	200		83.11	2
HILL0059.D	1311-4166-S1	<10.0				2
HILL0060.D	1311-4167-S1	<10.0		N/A		2
HILL0061.D	1311-4168-S1	<10.0				2
HILL0062.D	1311-4168MS-S1	164.639012	200		82.32	2
HILL0063.D	1311-4169-S1	<10.0				2
HILL0064.D	1311-4170-S1	<10.0		N/A		2
HILL0065.D	1311-4171-S1	<10.0				2
HILL0066.D	1311-4171-MS-S1	164.253095	200		82.13	2
HILL0067.D	1311-4172-S1	<10.0				2
HILL0068.D	1311-4173-S1	<10.0		N/A		2
HILL0073.D	1311-4174-S1	<10.0				2
HILL0074.D	1311-4174MS-S1	165.168607	200		82.58	2
HILL0075.D	1311-4175-S1	<10.0				2
HILL0076.D	1311-4176-S1	<10.0		N/A		2
HILL0077.D	1311-4177-S1	<10.0				2
HILL0078.D	1311-4177MS-S1	162.310247	200		81.16	2
HILL0079.D	1311-4178-S1	<10.0				2
HILL0080.D	1311-4179-S1	<10.0		N/A		2
HILL0081.D	1311-4180-S1	<10.0				2
HILL0082.D	1311-4180MS-S1	153.354131	200		76.68	2

Analytical Run Information*:
Acceptable Quant Range: 10 - 1002ng/ml
Calibration Curve r^2: 0.9979335
Target Analyte: PFOS
Internal Standard: NONE

Quality Control Sample Data

Instrument: Hillary
Run ID: H010405, internal standard quant

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %		Dilution Factor, Nx
HILL0031.D	1311-5043-S1	91.891635					10
HILL0032.D	1311-5044-S1	56.765171		28.59			10
HILL0033.D	1311-5045-S1	102.487587					10
HILL0034.D	1311-5045MS-S1	326.622579	200		163.31		10
HILL0035.D	1311-5049-S1	41.747357					100
HILL0036.D	1311-5050-S1	51.741309		16.18			100
HILL0037.D	1311-5051-S1	38.024002					100
HILL0038.D	1311-5051MS-S1	234.690722	200		117.35		100
HILL0039.D	1311-5079-S1	96.606457					10
HILL0040.D	1311-5080-S1	121.213214		15.61			10
HILL0045.D	1311-5081-S1	91.012507					10
HILL0046.D	1311-5081MS-S1	305.185315	200		152.59		10
HILL0047.D	1311-5085-S1	52.079333					100
HILL0048.D	1311-5086-S1	51.355299		0.70			100
HILL0049.D	1311-5087-S1	51.676981					100
HILL0050.D	1311-5087MS-S1	256.670403	200		128.34		100
HILL0051.D	1311-5091-S1	40.692073					2
HILL0052.D	1311-5092-S1	12.250295		90.59			2
HILL0053.D	1311-5093-S1	7.04131					2
HILL0054.D	1311-5093MS-S1	228.112564	200		114.06		2
HILL0059.D	1311-5121-S1	437.953237					10
HILL0060.D	1311-5122-S1	503.530248		9.39			10
HILL0061.D	1311-5123-S1	423.370937					10
HILL0062.D	1311-5123MS-S1	746.07087	200		373.04		10
HILL0063.D	1311-5157-S1	56.237274					100
HILL0064.D	1311-5158-S1	86.08401		23.15			100
HILL0065.D	1311-5159-S1	87.843563					100
HILL0066.D	1311-5159MS-S1	305.646245	200		152.82		100
~~HILL0067.D~~	~~1311-5181-S1~~	~~20.166169~~					2
~~HILL0072.D~~	~~1311-5182-S1~~	~~5.782359~~		~~78.39~~			2
~~HILL0073.D~~	~~1311-5183-S1~~	~~<5~~				sludge samples	2
~~HILL0074.D~~	~~1311-5183MS-S1~~	~~105.825164~~	~~200~~		~~52.91~~	will be	2
~~HILL0075.D~~	~~1311-5199-S1~~	~~<5.0~~				quanted without	2
~~HILL0076.D~~	~~1311-5200-S1~~	~~<5.0~~		~~N/A~~		the IS	2
~~HILL0077.D~~	~~1311-5201-S1~~	~~<5.0~~					2
~~HILL0078.D~~	~~1311-5201MS-S1~~	~~<5.0~~	~~200~~		~~N/A~~		2

Analytical Run Information*:
Acceptable Quant Range: 5 - 1002ng/ml
Calibration Curve r^2: 0.9998940
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Hillary
Run ID: H010405, external standard quant

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %		Dilution Factor, Nx
~~HILL0031.D~~	~~1311-5043-S1~~	~~90.797934~~					10
~~HILL0032.D~~	~~1311-5044-S1~~	~~55.441877~~		~~29.91~~			10
~~HILL0033.D~~	~~1311-5045-S1~~	~~103.495928~~					10
~~HILL0034.D~~	~~1311-5045MS-S1~~	~~267.397895~~	~~200~~		~~133.70~~		10
~~HILL0035.D~~	~~1311-5049-S1~~	~~42.120005~~				Quanted using	100
~~HILL0036.D~~	~~1311-5050-S1~~	~~53.947933~~		~~17.92~~		internal	100
~~HILL0037.D~~	~~1311-5051-S1~~	~~38.586671~~				standard, this	100
~~HILL0038.D~~	~~1311-5051MS-S1~~	~~209.446138~~	~~200~~		~~104.72~~	data not used	100
~~HILL0039.D~~	~~1311-5079-S1~~	~~96.758139~~					10
~~HILL0040.D~~	~~1311-5080-S1~~	~~122.688674~~		~~15.79~~			10
~~HILL0045.D~~	~~1311-5081-S1~~	~~92.307172~~					10
~~HILL0046.D~~	~~1311-5081MS-S1~~	~~249.138957~~	~~200~~		~~124.57~~		10
~~HILL0047.D~~	~~1311-5085-S1~~	~~54.84818~~					100
~~HILL0048.D~~	~~1311-5086-S1~~	~~54.51181~~		~~0.31~~			100
~~HILL0049.D~~	~~1311-5087-S1~~	~~54.656047~~					100
~~HILL0050.D~~	~~1311-5087MS-S1~~	~~224.611092~~	~~200~~		~~112.31~~		100
~~HILL0051.D~~	~~1311-5091-S1~~	~~40.390717~~					2
~~HILL0052.D~~	~~1311-5092-S1~~	~~8.044223~~		~~121.96~~			2
~~HILL0053.D~~	~~1311-5093-S1~~	~~2.182657~~					2
~~HILL0054.D~~	~~1311-5093MS-S1~~	~~182.278127~~	~~200~~		~~91.14~~		2
~~HILL0059.D~~	~~1311-5121-S1~~	~~422.251584~~					10
~~HILL0060.D~~	~~1311-5122-S1~~	~~483.17759~~		~~9.05~~			10
~~HILL0061.D~~	~~1311-5123-S1~~	~~408.790412~~					10
~~HILL0062.D~~	~~1311-5123MS-S1~~	~~546.166672~~	~~200~~		~~273.08~~		10
~~HILL0063.D~~	~~1311-5157-S1~~	~~55.410626~~					100
~~HILL0064.D~~	~~1311-5158-S1~~	~~91.075774~~		~~25.54~~			100
~~HILL0065.D~~	~~1311-5159-S1~~	~~89.142057~~					100
~~HILL0066.D~~	~~1311-5159MS-S1~~	~~254.385364~~	~~200~~		~~127.19~~		100
HILL0067.D	1311-5181-S1	27.424377					2
HILL0072.D	1311-5182-S1	< 10.0		#DIV/0!			2
HILL0073.D	1311-5183-S1	<10.0					2
HILL0074.D	1311-5183MS-S1	144.847675	200		72.42		2
HILL0075.D	1311-5199-S1	< 0.0					2
HILL0076.D	1311-5200-S1	< 0.0		N/A			2
HILL0077.D	1311-5201-S1	< 0.0					2
HILL0078.D	1311-5201MS-S1	131.864428	200		65.93		2

Analytical Run Information*:

Acceptable Quant Range: 10 - 1002ng/ml
Calibration Curve r^2: 0.9979335
Target Analyte: PFOS
Internal Standard: NONE

R010412

Quality Control Sample Data

Instrument: Rush
Run ID: R010412

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %
RUSH0032.D	1311-5124-S1	235.149546			
RUSH0033.D	1311-5125-S1	235.642534		1.14	
RUSH0034.D	1311-5126-S1	230.804348			
RUSH0035.D	1311-5126MS-S1	493.847976	200		131.52
RUSH0036.D	1311-5127-S1	21.144501			
RUSH0037.D	1311-5128-S1	<10.0		N/A	
RUSH0038.D	1311-5129-S1	<10.0			
RUSH0039.D	1311-5129MS-S1	221.257013	200		110.63
RUSH0040.D	1311-5130-S1	24.842763			
RUSH0041.D	1311-5131-S1	18.057138		17.78	
RUSH0046.D	1311-5132-S1	25.246348			
RUSH0047.D	1311-5132MS-S1	254.1411	200		114.45
RUSH0048.D	1311-5133-S1	112.234056			
RUSH0049.D	1311-5134-S1	133.554484		10.23	
RUSH0050.D	1311-5135-S1	135.817446			
RUSH0051.D	1311-5135MS-S1	386.683935	200		125.43
RUSH0052.D	1311-5136-S1	85.185002			
RUSH0053.D	1311-5137-S1	76.528101		6.61	
RUSH0054.D	1311-5138-S1	75.760492			
RUSH0055.D	1311-5138MS-S1	321.006503	200		122.62
RUSH0060.D	1311-5139-S1	157.041946			
RUSH0061.D	1311-5140-S1	155.224502		0.84	
RUSH0062.D	1311-5141-S1	154.501564			
RUSH0063.D	1311-5141MS-S1	424.195113	200		134.85
RUSH0064.D	1311-5142-S1	109.207528			
RUSH0065.D	1311-5143-S1	99.477125		6.56	
RUSH0066.D	1311-5144-S1	96.43578			
RUSH0067.D	1311-5144MS-S1	343.243911	200		123.40
RUSH0068.D	1311-5145-S1	<10.0			
RUSH0069.D	1311-5146-S1	<10.0		N/A	
RUSH0074.D	1311-5147-S1	<10.0			
RUSH0075.D	1311-5147MS-S1	220.445044	200		110.22
RUSH0076.D	1311-5148-S1	123.282427			
RUSH0077.D	1311-5149-S1	90.083398		25.61	
RUSH0078.D	1311-5150-S1	152.507888			
RUSH0079.D	1311-5150MS-S1	423.934455	200		135.71
RUSH0084.D	1311-5151-S1	470.275971			
RUSH0085.D	1311-5152-S1	481.768175		2.15	
RUSH0086.D	1311-5153-S1	461.552835			
RUSH0087.D	1311-5153MS-S1	867.494012	200		202.97
RUSH0088.D	1311-5154-S1	259.294489			
RUSH0089.D	1311-5155-S1	273.244648		2.93	
RUSH0090.D	1311-5156-S1	260.405148			
RUSH0091.D	1311-5156MS-S1	559.64233	200		149.62

Analytical Run Information*:
Acceptable Quant Range: 10 - 1002ng/ml
Calibration Curve r^2: 0.9999132
Target Analyte: PFOS
Internal Standard: THPFOS

H010412

Quality Control Sample Data

Instrument: Hillary
Run ID: H010412

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %
HILL0031.D	1311-5184-S1	< 10.0			
HILL0032.D	1311-5185-S1	< 10.0		N/A	
HILL0033.D	1311-5186-S1	< 10.0			
HILL0034.D	1311-5186MS-S1	124.150116	200		62.08
HILL0035.D	1311-5187--S1	< 10.0			
HILL0036.D	1311-5188-S1	< 10.0		N/A	
HILL0037.D	1311-5189-S1	< 10.0			
HILL0038.D	1311-5189MS-S1	125.816424	200		62.91
HILL0039.D	1311-5190-S1	11.327739			
HILL0040.D	1311-5191-S1	14.704513		18.34	
HILL0045.D	1311-5192-S1	< 10.0			
HILL0046.D	1311-5192MS-S1	204.597109	200		102.30
HILL0047.D	1311-5202-S1	< 10.0			
HILL0048.D	1311-5203-S1	< 10.0		N/A	
HILL0049.D	1311-5204-S1	< 10.0			
HILL0050.D	1311-5204MS-S1	110.900636	200		55.45
HILL0051.D	1311-5205-S1	< 10.0			
HILL0052.D	1311-5206-S1	< 10.0		N/A	
HILL0053.D	1311-5207-S1	< 10.0			
HILL0054.D	1311-5207MS-S1	118.227093	200		59.11
HILL0059.D	1311-5208-S1	14.126747			
HILL0060.D	1311-5209-S1	11.420901		14.98	
HILL0061.D	1311-5210-S1	< 10.0			
HILL0062.D	1311-5210MS-S1	194.375995	200		97.19
HILL0063.D	1311-5211-S1	14.879531			
HILL0064.D	1311-5212-S1	23.895092		25.51	
HILL0065.D	1311-5213-S1	24.461872			
HILL0066.D	1311-5213MS-S1	215.922611	200		95.73

Analytical Run Information*:

Acceptable Quant Range: 10 - 400.8ng/ml
Calibration Curve r^2: 0.9913025
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Hillary
Run ID: H010316

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %		Dilution Level, Nx
HILL0032.D	-5019-S3	< 5.0					2
HILL0033.D	-5020-S3	< 5.0		N/A			2
HILL0034.D	-5021-S3	< 5.0					2
HILL0035.D	-5021MS-S3	193.2	200		96.61		2
HILL0036.D	-5055-S3	< 5.0					2
HILL0037.D	-5056-S3	< 5.0		N/A			2
HILL0038.D	-5057-S3	< 5.0					2
HILL0039.D	-5057MS-S3	198.3	200		99.14		2
HILL0040.D	-5091-S3	10.9					2
HILL0045.D	-5092-S3	27.8		61.45			2
HILL0046.D	-5093-S3	< 5.0					2
HILL0047.D	-5093MS-S3	187.3	200		93.67		2
HILL0048.D	-5127-S3	< 5.0					2
HILL0049.D	-5128-S3	< 5.0		N/A			2
HILL0050.D	-5129-S3	< 5.0					2
HILL0051.D	-5129MS-S3	207.2	200		103.61		2
HILL0052.D	-5163-S3	< 5.0					2
HILL0053.D	-5164-S3	< 5.0		N/A			2
HILL0054.D	-5165-S3	< 5.0					2
HILL0059.D	-5165MS-S3	199.1	200		99.53		2
HILL0060.D	-5199-S3	<5.0					2
HILL0061.D	-5200-S3	< 5.0		N/A			2
HILL0062.D	-5201-S3	< 5.0					2
HILL0063.D	-5201MS-S3	172.7	200		86.35		2
HILL0064.D	-5022-S3	< 5.0					2
HILL0065.D	-5023-S3	< 5.0		N/A			2
HILL0066.D	-5024-S3	< 5.0					2
HILL0067.D	-5024MS-S3	190.5	200		95.27		2
HILL0068.D	-5058-S3	42.6					2
HILL0073.D	-5059-S3	48.9		14.60			2
HILL0074.D	-5060-S3	57.0					2
HILL0075.D	-5060MS-S3	261.8	200		102.44		2
HILL0076.D	-5094-S3	56.4					2
HILL0077.D	-5095-S3	45.9		12.21			2
HILL0078.D	-5096-S3	57.9					2
HILL0079.D	-5096MS-S3	268.0	200		105.05		2
HILL0080.D	-5130-S3	111.6		8.63			2
HILL0081.D	-5132-S3	98.8					2
HILL0082.D	-5132MS-S3	333.9	200		117.57		2
HILL0087.D	-5166-S3	142.0					2
HILL0088.D	-5167-S3	99.1		37.39			2
HILL0089.D	-5168-S3	65.7					2
HILL0090.D	-5168MS-S3	281.1	200		107.73		2
HILL0091.D	-5202-S3	36.3					2
HILL0092.D	-5203-S3	25.2		18.24			2
HILL0093.D	-5204-S3	30.1					2
HILL0094.D	-5204MS-S3	205.7	200		87.83		2
HILL0095.D	-5025-S3	< 5.0					2
HILL0096.D	-5026-S3	< 5.0		N/A			2
HILL0101.D	-5027-S3	< 5.0					2
HILL0102.D	-5027MS-S3	193.0	200		96.48		2
HILL0103.D	-5061-S3	159.8					2
HILL0104.D	-5062-S3	203.2		11.98			2
HILL0105.D	-5063-S3	180.8					2
HILL0106.D	-5063MS-S3	416.4	200		117.80		2
HILL0107.D	-5097-S3	161.9					2
HILL0108.D	-5098-S3	173.0		9.45			2
HILL0109.D	-5099-S3	194.7					2
HILL0110.D	-5099MS-S3	557.2	200		181.23	Low internal standard response	2
HILL0115.D	-5133-S3	393.7					2
HILL0116.D	-5134-S3	375.2		4.32			2
HILL0117.D	-5135-S3	361.3					2
HILL0118.D	-5135MS-S3	657.1	200		147.93	Low internal standard response	2
HILL0119.D	-5169-S3	298.3					2
HILL0120.D	-5170-S3	267.4		10.16			2
HILL0121.D	-5171-S3	327.9					2
HILL0122.D	-5171MS-S3	598.5	200		135.32	Low internal standard response	2
HILL0123.D	-5205-S3	97.6					2
HILL0124.D	-5206-S3	127.8		15.81			2
HILL0129.D	-5207-S3	98.9					2
HILL0130.D	-5207MS-S3	301.6	200		101.35		2
HILL0131.D	-5028-S3	5.6					2
HILL0132.D	-5029-S3	< 5.0		5.42			2
HILL0133.D	-5030-S3	6.0					2
HILL0134.D	-5030MS-S3	200.4	200		97.17		2
HILL0135.D	-5064-S3	461.1					2
HILL0136.D	-5065-S3	285.5					2

Analytical Run Information*:
Acceptable Quant Range: 5 - 1002ng/ml
Calibration Curve r^2: 0.9976656
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Hillary
Run ID: H010311

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %		Q-Test Calculation (N = 3)	Dilution Factor, Nx
HILL0036.D	E00-1311-4059-S7	25.2		2.12				2
HILL0037.D	E00-1311-4060-S7	24.5						2
HILL0038.D	E00-1311-4064-S7	< 5.0						2
HILL0039.D	E00-1311-4065-S7	< 5.0		N/A				2
HILL0040.D	E00-1311-4066-S7	< 5.0						2
HILL0041.D	E00-1311-4088-S7	37.7						2
HILL0042.D	E00-1311-4089-S7	42.6		6.67				2
HILL0043.D	E00-1311-4090-S7	38.4						2
HILL0044.D	E00-1311-4094-S7	< 5.0						2
HILL0045.D	E00-1311-4095-S7	< 5.0		N/A				2
HILL0050.D	E00-1311-4096-S7	< 5.0						2
HILL0051.D	E00-1311-4118-S7	29.5						2
HILL0052.D	E00-1311-4119-S7	28.6		1.62				2
HILL0053.D	E00-1311-4120-S7	28.9						2
HILL0054.D	E00-1311-4004-S8	< 5.0						2
HILL0055.D	E00-1311-4005-S8	< 5.0		N/A				2
HILL0056.D	E00-1311-4006-S8	< 5.0						2
HILL0057.D	E00-1311-4006MS-S8	205.4	200		102.69			2
HILL0058.D	E00-1311-4028-S8	12.3						2
HILL0059.D	E00-1311-4030-S8	10.4		11.52				2
HILL0064.D	E00-1311-4030MS-S8	214.9	200		102.21			2
HILL0065.D	E00-1311-4034-S8	< 5.0						2
HILL0066.D	E00-1311-4035-S8	< 5.0		N/A				2
HILL0067.D	E00-1311-4036-S8	< 5.0						2
HILL0068.D	E00-1311-4036MS-S8	205.9	200		102.93			2
HILL0069.D	E00-1311-4058-S8	29.8						2
HILL0070.D	E00-1311-4059-S8	11.5		43.02			-0.779010748	2
HILL0071.D	E00-1311-4060-S8	25.7						2
HILL0072.D	E00-1311-4060MS-S8	241.8	200		108.02			2
HILL0073.D	E00-1311-4064-S8	< 5.0						2
HILL0078.D	E00-1311-4065-S8	< 5.0		N/A				2
HILL0079.D	E00-1311-4066-S8	< 5.0						2
HILL0080.D	E00-1311-4066MS-S8	213.6	200		106.78			2
HILL0081.D	E00-1311-4088-S8	40.2						2
HILL0082.D	E00-1311-4089-S8	41.4		5.02				2
HILL0083.D	E00-1311-4090-S8	37.5						2
HILL0084.D	E00-1311-4090MS-S8	256.5	200		109.51			2
HILL0085.D	E00-1311-4094-S8	< 5.0						2
HILL0086.D	E00-1311-4095-S8	< 5.0		N/A				2
HILL0087.D	*E00-1311-4096-S8*	< 5.0				IS<130%		2
HILL0092.D	E00-1311-4096MS-S8	198.4	200		99.20			2
HILL0093.D	E00-1311-4118-S8	< 5.0						2
HILL0094.D	E00-1311-4119-S8	29.7		10.56				2
HILL0095.D	E00-1311-4120-S8	25.6						2
HILL0096.D	E00-1311-4120MS-S8	246.5	200		110.45			2
HILL0097.D	E00-1311-5001-S1	14.1						2
HILL0098.D	E00-1311-5002-S1	< 5.0		N/A				2
HILL0099.D	E00-1311-5003-S1	< 5.0						2
HILL0100.D	E00-1311-5003MS-S1	221.6	200		110.82			2
HILL0101.D	E00-1311-5004-S1	196.1						2
HILL0106.D	E00-1311-5005-S1	197.5		0.61				2
HILL0107.D	E00-1311-5006-S1	198.5						2
HILL0108.D	E00-1311-5006MS-S1	428.8	200		115.14			2
HILL0109.D	E00-1311-5007-S1	253.2						10
HILL0110.D	E00-1311-5008-S1	183.9		22.12				10
HILL0111.D	E00-1311-5009-S1	169.5						10
HILL0112.D	E00-1311-5009MS-S1	415.6	200		123.02			10
HILL0113.D	E00-1311-5010-S1	435.7						10
HILL0114.D	E00-1311-5011-S1	403.3		4.30				10
HILL0115.D	E00-1311-5012-S1	406.6						10
~~HILL0120.D~~	~~E00-1311-5012MS-S1~~	~~718.8~~	~~200~~		~~156.09~~	> 501ng/ml		10
HILL0121.D	E00-1311-5013-S1	102.7						100
HILL0122.D	E00-1311-5014-S1	110.0		3.94				100
HILL0123.D	E00-1311-5015-S1	102.9						100
HILL0124.D	E00-1311-5015MS-S1	311.8	200		104.48			100
~~HILL0125.D~~	~~E00-1311-5016-S1~~	~~595.3~~				> 501ng/ml		100
~~HILL0126.D~~	~~E00-1311-5017-S1~~	~~617.9~~		4.65		> 501ng/ml		100
~~HILL0127.D~~	~~E00-1311-5018-S1~~	~~652.7~~				> 501ng/ml		100
~~HILL0128.D~~	~~E00-1311-5018MS-S1~~	~~921.6~~	200		134.44	> 501ng/ml		100
HILL0133.D	E00-1311-5019-S1	15.6						2
HILL0134.D	E00-1311-5020-S1	< 5.0		N/A				2
HILL0135.D	E00-1311-5021-S1	< 5.0						2
HILL0136.D	E00-1311-5021MS-S1	207.9	200		103.84			2
HILL0137.D	E00-1311-5022-S1	186.8						2
HILL0138.D	E00-1311-5023-S1	193.1		3.49				2
HILL0139.D	E00-1311-5024-S1	200.3						2
HILL0140.D	E00-1311-5024MS-S1	437.0	200		118.33			2

Analytical Run Information*:
Acceptable Quant Range: 5 - 501ng/ml
Calibration Curve r^2: 0.9960079
Target Analyte: PFOS
Internal Standard: THPFOS

CMC 5/15/01

Quality Control Sample Data

Instrument: Rush
Run ID: R010314

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Q-Test Calculation (N = 3)	Dilution Factor, Nx
RUSH0031.D	1311-4121-S1	< 2.5					10
RUSH0032.D	1311-4122-S1	< 2.5		N/A			10
RUSH0033.D	1311-4123-S1	< 2.5					10
RUSH0034.D	1311-4123MS-S1	197.9	200		98.95		10
RUSH0035.D	1311-4124-S1	< 2.5					10
RUSH0036.D	1311-4125-S1	< 2.5		N/A			10
RUSH0037.D	1311-4126-S1	< 2.5					10
RUSH0038.D	1311-4126MS-S1	199.4	200		99.68		10
RUSH0039.D	1311-4127-S1	37.0					10
~~RUSH0040.D~~	~~1311-4128-S1*~~	~~156.8~~		21.30		0.925233823	10
RUSH0045.D	1311-4129-S1	27.3				*Point thrown out. Q value was	10
RUSH0046.D	1311-4129MS-S1	231.6	200		102.17	nearly 0.94, and the matrix spike passed,	10
RUSH0047.D	1311-4130-S1	24.3				-4128 is an obvious outlier.	10
RUSH0048.D	1311-4131-S1	21.9		6.77			10
RUSH0049.D	1311-4132-S1	25.0					10
RUSH0050.D	1311-4132MS-S1	232.9	200		103.95		10
RUSH0051.D	1311-4133-S1	22.5					10
RUSH0052.D	1311-4134-S1	23.3		2.75			10
RUSH0053.D	1311-4135-S1	23.7					10
RUSH0054.D	1311-4135MS-S1	225.7	200		100.96		10
~~RUSH0059.D~~	~~1311-4136-S1~~	~~< 2.5~~	**No Internal Standard Detected				10
RUSH0060.D	1311-4137-S1	22.8		1.17			10
RUSH0061.D	1311-4138-S1	23.2					10
RUSH0062.D	1311-4138MS-S1	228.1	200		102.42		10
RUSH0063.D	1311-4139-S1	20.7					10
RUSH0064.D	1311-4140-S1	20.4		1.43			10
RUSH0065.D	1311-4141-S1	21.0					10
RUSH0066.D	1311-4141MS-S1	228.2	200		103.62		10
RUSH0067.D	1311-4142-S1	20.4					10
RUSH0068.D	1311-4143-S1	21.3		2.05			10
RUSH0073.D	1311-4144-S1	20.7					10
RUSH0074.D	1311-4144MS-S1	224.5	200		101.88		10
RUSH0075.D	1311-4145-S1	19.5					10
RUSH0076.D	1311-4146-S1	19.2		1.29			10
RUSH0077.D	1311-4147-S1	19.0					10
RUSH0078.D	1311-4147MS-S1	223.2	200		102.09		10
RUSH0079.D	1311-4148-S1	20.1		0.29			10
RUSH0080.D	1311-4149-S1	20.0					10
RUSH0081.D	1311-4150-S1	20.2					10
RUSH0082.D	1311-4150MS-S1	224.3	200		102.04		10

Analytical Run Information*:
Acceptable Quant Range: 2.5 - 250.5ng/ml
Calibration Curve r^2: 0.9982281
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Hillary
Run ID: H010313

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %		Q-Test Calculation (N = 3)	Dilution Factor, Nx
HILL0031.D	E00-1311-5062-S2	66.3		15.51				2
HILL0032.D	E00-1311-5063-S2	53.4						2
HILL0033.D	E00-1311-5063MS-S2	252.7	200		99.62			2
HILL0034.D	E00-1311-5064-S2	114.7						2
HILL0035.D	E00-1311-5065-S2	120.2		29.03				2
HILL0036.D	E00-1311-5066-S2	188.2						2
HILL0037.D	E00-1311-5066MS-S2	415.8	200		113.82			2
HILL0038.D	E00-1311-5067-S2	438.9						2
HILL0039.D	E00-1311-5068-S2	417.8		14.08				2
HILL0040.D	E00-1311-5069-S2	333.4						2
~~HILL0045.D~~	~~E00-1311-5069MS-S2~~	~~568.3~~	~~200~~		~~117.49~~	>501 ng/mL		2
~~HILL0046.D~~	~~E00-1311-5070-S2~~	~~2014.5~~				>501 ng/mL		2
~~HILL0047.D~~	~~E00-1311-5071-S2~~	~~1467.5~~		16.17		>501 ng/mL		2
~~HILL0048.D~~	~~E00-1311-5072-S2~~	~~1662.0~~				>501 ng/mL		2
~~HILL0049.D~~	~~E00-1311-5072MS-S2~~	~~2240.4~~	~~200~~		~~289.19~~	>501 ng/mL		2
HILL0050.D	E00-1311-5091-S2	137.3						2
HILL0051.D	E00-1311-5092-S2	49.9		75.71			0.844827602	2
HILL0052.D	E00-1311-5093-S2	33.8						2
~~HILL0053.D~~	~~E00-1311-5093MS-S2~~	~~235.1~~	~~200~~		~~100.79~~	ISTD<70%		2
HILL0054.D	E00-1311-5094-S2	41.7						2
HILL0059.D	E00-1311-5095-S2	35.2		10.82				2
HILL0060.D	E00-1311-5096-S2	34.6						2
HILL0061.D	E00-1311-5096MS-S2	250.3	200		107.79			2
HILL0062.D	E00-1311-5097-S2	127.1						2
HILL0063.D	E00-1311-5098-S2	126.1		4.01				2
HILL0064.D	E00-1311-5099-S2	135.5						2
HILL0065.D	E00-1311-5099MS-S2	353.6	200		109.06			2
HILL0066.D	E00-1311-5100-S2	334.7						2
HILL0067.D	E00-1311-5101-S2	327.4		2.19				2
HILL0068.D	E00-1311-5102-S2	342.0						2
~~HILL0073.D~~	~~E00-1311-5102MS-S2~~	~~610.1~~	~~200~~		~~134.12~~	>501 ng/mL		2
~~HILL0074.D~~	~~E00-1311-5103-S2~~	~~638.6~~				>501 ng/mL		2
~~HILL0075.D~~	~~E00-1311-5104-S2~~	~~662.0~~		~~5.28~~		>501 ng/mL		2
~~HILL0076.D~~	~~E00-1311-5105-S2~~	~~708.1~~				>501 ng/mL		2
~~HILL0077.D~~	~~E00-1311-5105MS-S2~~	~~1187.3~~	~~200~~		~~239.61~~	>501 ng/mL		2
~~HILL0078.D~~	~~E00-1311-5106-S2~~	~~3004.1~~				>501 ng/mL		2
~~HILL0079.D~~	~~E00-1311-5107-S2~~	~~3015.1~~		~~6.81~~		>501 ng/mL		2
~~HILL0080.D~~	~~E00-1311-5108-S2~~	~~3379.3~~				>501 ng/mL		2
~~HILL0081.D~~	~~E00-1311-5108MS-S2~~	~~4035.0~~	~~200~~		~~337.91~~	>501 ng/mL		2

Analytical Run Information*:
Acceptable Quant Range: 5 - 501ng/ml
Calibration Curve r^2: 0.9961319
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Rush
Run ID: R010309

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %		Dilution Factor, Nx
RUSH0036.D	1311-4058-S4	9.6					2
RUSH0037.D	1311-4059-S4	9.6		0.44			2
RUSH0038.D	1311-4064-S4	<5.0					2
RUSH0039.D	1311-4065-S4	<5.0		N/A			2
RUSH0040.D	1311-4066-S4	<5.0					2
RUSH0041.D	1311-4088-S4	76.8					2
~~RUSH0042.D~~	~~1311-4089-S4*~~	<5.0		80.81		* No IS added	2
RUSH0043.D	1311-4090-S4	21.0					2
RUSH0044.D	1311-4094-S4	<5.0					2
RUSH0045.D	1311-4095-S4	94.0		129.33			2
~~RUSH0050.D~~	~~1311-4096-S4**~~	~~4.2~~				**IS >70%	2
RUSH0051.D	1311-4118-S4	12.3					2
RUSH0052.D	1311-4119-S4	17.8		18.27			2
RUSH0053.D	1311-4120-S4	15.9					2
RUSH0054.D	1311-4004-S5	<5.0					2
RUSH0055.D	1311-4005-S5	<5.0		N/A			2
RUSH0056.D	1311-4006-S5	<5.0					2
RUSH0057.D	1311-4028-S5	10.3		35.36			2
RUSH0058.D	1311-4030-S5	6.2					2
RUSH0059.D	1311-4034-S5	<5.0					2
RUSH0064.D	1311-4035-S5	<5.0		N/A			2
RUSH0065.D	1311-4036-S5	<5.0					2
RUSH0066.D	1311-4058-S5	27.1					2
RUSH0067.D	1311-4059-S5	27.1		11.48			2
RUSH0068.D	1311-4060-S5	32.9					2
RUSH0069.D	1311-4064-S5	<5.0					2
RUSH0070.D	1311-4065-S5	<5.0		N/A			2
RUSH0071.D	1311-4066-S5	<5.0					2
RUSH0072.D	1311-4088-S5	40.3					2
RUSH0073.D	1311-4089-S5	43.8		6.09			2
RUSH0078.D	1311-4090-S5	45.4					2
RUSH0079.D	1311-4094-S5	<5.0					2
RUSH0080.D	1311-4095-S5	<5.0		N/A			2
RUSH0081.D	1311-4096-S5	<5.0					2
RUSH0082.D	1311-4118-S5	18.9					2
RUSH0083.D	1311-4119-S5	24.1		16.31			2
RUSH0084.D	1311-4120-S5	26.3					2
RUSH0085.D	1311-4004-S6	<5.0					2
RUSH0086.D	1311-4005-S6	<5.0		N/A			2
RUSH0087.D	1311-4006-S6	<5.0					2
RUSH0092.D	1311-4006MS-S6	217.8	200		108.9		2
RUSH0093.D	1311-4028-S6	9.9					2
RUSH0094.D	1311-4030-S6	9.4		3.69			2
RUSH0095.D	1311-4030MS-S6	241.4	200		116.0		2
RUSH0096.D	1311-4034-S6	<5.0					2
RUSH0097.D	1311-4035-S6	<5.0		N/A			2
RUSH0098.D	1311-4036-S6	<5.0					2
RUSH0099.D	1311-4036MS-S6	226.5	200		113.3		2
RUSH0100.D	1311-4058-S6	29.6					2
RUSH0101.D	1311-4059-S6	28.0		4.23			2
RUSH0106.D	1311-4060-S6	27.2					2
RUSH0107.D	1311-4060MS-S6	208.2	201		90.0		2
RUSH0108.D	1311-4064-S6	<5.0					2
RUSH0109.D	1311-4065-S6	<5.0		N/A			2
RUSH0110.D	1311-4066-S6	<5.0					2
RUSH0111.D	1311-4066MS-S6	220.8	202		109.3		2
RUSH0112.D	1311-4088-S6	38.5					2
RUSH0113.D	1311-4089-S6	40.5		4.82			2
RUSH0114.D	1311-4090-S6	36.7					2
RUSH0115.D	1311-4090MS-S6	260.5	203		110.2		2
RUSH0120.D	1311-4094-S6	<5.0					2
RUSH0121.D	1311-4095-S6	<5.0		N/A			2
RUSH0122.D	1311-4096-S6	<5.0					2
RUSH0123.D	1311-4096MS-S6	211.0	204		103.4		2
RUSH0124.D	1311-4118-S6	29.6					2
RUSH0125.D	1311-4119-S6	28.5		6.76			2
RUSH0126.D	1311-4120-S6	25.9					2
RUSH0127.D	1311-4120MS-S6	262.6	205		115.5		2
RUSH0128.D	1311-4004-S7	<5.0					2
RUSH0129.D	1311-4005-S7	<5.0		N/A			2
RUSH0134.D	1311-4006-S7	<5.0					2
RUSH0135.D	1311-4028-S7	9.9					2
RUSH0136.D	1311-4030-S7	10.4		3.68			2
RUSH0137.D	1311-4034-S7	<5.0					2
RUSH0138.D	1311-4035-S7	8.9		N/A			2
RUSH0139.D	1311-4036-S7	<5.0					2
RUSH0140.D	1311-4058-S7	27.7					2

Analytical Run Information*:
Acceptable Quant Range: 5 - 250.5ng/ml
Calibration Curve r^2: 0.9936833
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Hillary
Run ID: H010309

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Dilution Factor, Nx
HILL0036.D	E00-1311-4103-S1	8.012285				10
HILL0037.D	E00-1311-4104-S1	6.1696		15.73		10
HILL0038.D	E00-1311-4105-S1	8.375534				10
HILL0039.D	E00-1311-4105-S1-MS	190.967177	200		91.30	10
HILL0040.D	E00-1311-4106-S1	11.534113				10
HILL0041.D	E00-1311-4107-S1	11.512441		3.75		10
HILL0042.D	E00-1311-4108-S1	10.789985				10
HILL0043.D	E00-1311-4108-S1-MS	195.20857	200		92.21	10
HILL0044.D	E00-1311-4109-S1	5.573715				10
HILL0045.D	E00-1311-4110-S1	5.956354		4.53		10
HILL0050.D	E00-1311-4111-S1	5.468121				10
HILL0051.D	E00-1311-4111-S1-MS	190.080867	200		92.31	10
HILL0052.D	E00-1311-4112-S1	5.648499				10
HILL0053.D	E00-1311-4113-S1	5.788465		12.99		10
HILL0054.D	E00-1311-4114-S1	7.103971				10
HILL0055.D	E00-1311-4114-S1-MS	196.371648	200		94.63	10
HILL0056.D	E00-1311-4115-S1	5.890369				10
HILL0057.D	E00-1311-4116-S1	6.081276		4.93		10
HILL0058.D	E00-1311-4117-S1	5.516164				10
HILL0059.D	E00-1311-4117-S1-MS	188.305604	200		91.39	10
HILL0064.D	E00-1311-4118-S1	6.353969				10
HILL0065.D	E00-1311-4119-S1	6.139234		2.40		10
HILL0066.D	E00-1311-4120-S1	6.068331				10
HILL0067.D	E00-1311-4120-S1-MS	187.872851	200		90.90	10
HILL0068.D	E00-1311-4004-S2	< 5.0				2
HILL0069.D	E00-1311-4005-S2	< 5.0		N/A		2
HILL0070.D	E00-1311-4006-S2	< 5.0				2
HILL0071.D	E00-1311-4028-S2	10.540604				2
HILL0072.D	E00-1311-4030-S2	10.758796		1.45		2
HILL0073.D	E00-1311-4034-S2	< 5.0				2
HILL0078.D	E00-1311-4035-S2	< 5.0		N/A		2
HILL0079.D	E00-1311-4036-S2	< 5.0				2
HILL0080.D	E00-1311-4058-S2	9.632074				2
HILL0081.D	E00-1311-4059-S2	10.882823		17.76		2
HILL0082.D	E00-1311-4060-S2	13.580921				2
HILL0083.D	E00-1311-4064-S2	< 5.0				2
HILL0084.D	E00-1311-4065-S2	< 5.0		N/A		2
HILL0085.D	E00-1311-4066-S2	< 5.0				2
HILL0086.D	E00-1311-4088-S2	24.565447				2
HILL0087.D	E00-1311-4089-S2	22.166603		5.14		2
HILL0092.D	E00-1311-4090-S2	23.314433				2
HILL0093.D	E00-1311-4094-S2	< 5.0				2
HILL0094.D	E00-1311-4095-S2	< 5.0		N/A		2
HILL0095.D	E00-1311-4096-S2	< 5.0				2
HILL0096.D	E00-1311-4118-S2	15.647205				2
HILL0097.D	E00-1311-4119-S2	15.158642		7.80		2
HILL0098.D	E00-1311-4120-S2	17.540006				2
HILL0099.D	E00-1311-4004-S3	29.041629				2
HILL0100.D	E00-1311-4005-S3	< 5.0		N/A		2
HILL0101.D	E00-1311-4006-S3	< 5.0				2
HILL0106.D	E00-1311-4028-S3	10.390455				2
HILL0107.D	E00-1311-4030-S3	10.082186		2.13		2
HILL0108.D	E00-1311-4035-S3	< 5.0				2
HILL0109.D	E00-1311-4036-S3	< 5.0				2
HILL0110.D	E00-1311-4058-S3	3.726289				2
HILL0111.D	E00-1311-4059-S3	5.345841		59.45		2
HILL0112.D	E00-1311-4060-S3	11.436618				2
HILL0113.D	E00-1311-4064-S3	< 5.0				2
HILL0114.D	E00-1311-4065-S3	< 5.0		N/A		2
HILL0115.D	E00-1311-4066-S3	< 5.0				2
HILL0120.D	E00-1311-4088-S3	17.140262				2
HILL0121.D	E00-1311-4089-S3	22.525864		15.73		2
HILL0122.D	E00-1311-4090-S3	23.112191				2
HILL0123.D	E00-1311-4094-S3	< 5.0				2
HILL0124.D	E00-1311-4095-S3	< 5.0		N/A		2
HILL0125.D	E00-1311-4096-S3	< 5.0				2
HILL0126.D	E00-1311-4118-S3	8.254569				2
HILL0127.D	E00-1311-4119-S3	< 5.0		97.86		2
HILL0128.D	E00-1311-4120-S3	45.097179				2
HILL0133.D	E00-1311-4004-S4	< 5.0				2
HILL0134.D	E00-1311-4005-S4	< 5.0		N/A		2
HILL0135.D	E00-1311-4006-S4	< 5.0				2
HILL0136.D	E00-1311-4028-S4	12.302809				2
HILL0137.D	E00-1311-4030-S4	8.300946		27.47		2
HILL0138.D	E00-1311-4034-S4	< 5.0				2
HILL0139.D	E00-1311-4035-S4	< 5.0		N/A		2
HILL0140.D	E00-1311-4036-S4	< 5.0				2

Analytical Run Information*:
Acceptable Quant Range: 5 - 400.8ng/ml
Calibration Curve r^2: 0.9924853
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Rush
Run ID: r010222

Sample Data File	Sample Description	Measured Concentration ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Q-Test Calculation (N = 3)	Dilution Factor, Nx	
RUSH0037.D	1311-4052-S1	11.3					10	
RUSH0038.D	1311-4053-S1	10.1		6.46			10	
RUSH0039.D	1311-4054-S1	11.3					10	
RUSH0040.D	1311-4054MS-S1	212.3	200		100.49		10	
RUSH0041.D	1311-4055-S1	8.9					10	
RUSH0042.D	1311-4056-S1	8.8		1.27			10	
RUSH0043.D	1311-4057-S1	~~22.4~~	** Point Thrown out			0.9883	10	
RUSH0044.D	1311-4057MS-S1	208.2	200		104.10		10	
RUSH0045.D	1311-4058-S1	11.3					10	
RUSH0046.D	1311-4059-S1	10.4		4.57			10	
RUSH0051.D	1311-4060-S1	10.5					10	
RUSH0052.D	1311-4060MS-S1	212.2	200		100.86		10	
RUSH0053.D	1311-4061-S1	<5.0					10	
RUSH0054.D	1311-4062-S1	<5.0		N/A			10	
RUSH0055.D	1311-4063-S1	<5.0					10	
RUSH0056.D	1311-4063MS-S1	203.5	200		101.76		10	
RUSH0057.D	1311-4064-S1	<5.0					10	
RUSH0058.D	1311-4065-S1	<5.0		N/A			10	
RUSH0059.D	1311-4066-S1	<5.0					10	
RUSH0060.D	1311-4066MS-S1	205.5	200		102.75		10	
RUSH0065.D	1311-4067-S1	39.3					10	
RUSH0066.D	1311-4068-S1	40.8		22.16			10	
RUSH0067.D	1311-4069-S1	26.5					10	
RUSH0068.D	1311-4069MS-S1	226.3	200		100.89		10	
RUSH0069.D	1311-4070-S1	19.3					10	
RUSH0070.D	1311-4071-S1	22.2		7.27			10	
RUSH0071.D	1311-4072-S1	21.4					10	
RUSH0072.D	1311-4072MS-S1	223.9	200		101.24		10	
RUSH0073.D	1311-4073-S1	20.1					10	
RUSH0074.D	1311-4074-S1	20.6		2.78			10	
RUSH0079.D	1311-4075-S1	19.5					10	
RUSH0080.D	1311-4075MS-S1	222.8	200		101.64		10	
RUSH0081.D	1311-4076-S1	21.9					10	
RUSH0082.D	1311-4077-S1	21.3		1.48			10	
RUSH0083.D	1311-4078-S1	21.6					10	
RUSH0084.D	1311-4078MS-S1	222.3	200		100.36		10	
RUSH0085.D	1311-4079-S1	18.1					10	
RUSH0086.D	1311-4080-S1	18.1		0.13			10	
RUSH0087.D	1311-4081-S1	~~31.4~~	** Point Thrown out			0.9976	10	High internal standard response
RUSH0088.D	1311-4081MS-S1	221.0	200		94.79		10	
RUSH0093.D	1311-4082-S1	19.9					10	
RUSH0094.D	1311-4083-S1	17.8		6.57			10	
RUSH0095.D	1311-4084-S1	17.9					10	
RUSH0096.D	1311-4084MS-S1	221.4	200		101.74		10	
RUSH0097.D	1311-4085-S1	15.5					10	
RUSH0098.D	1311-4086-S1	16.3		3.42			10	
RUSH0099.D	1311-4087-S1	~~33.7~~	** Point Thrown out			0.9577	10	
RUSH0100.D	1311-4087MS-S1	232.1	200		99.20		10	
RUSH0101.D	1311-4088-S1	17.1					10	
RUSH0102.D	1311-4089-S1	17.1		0.90			10	
RUSH0107.D	1311-4090-S1	16.8					10	
RUSH0108.D	1311-4090MS-S1	215.5	200		99.34		10	
RUSH0109.D	1311-4091-S1	<5.0					10	
RUSH0110.D	1311-4092-S1	<5.0		N/A			10	
RUSH0111.D	1311-4093-S1	<5.0					10	
RUSH0112.D	1311-4093MS-S1	201.0	200		100.50		10	
RUSH0113.D	1311-4094-S1	<5.0					10	
RUSH0114.D	1311-4095-S1	<5.0		N/A			10	
RUSH0115.D	1311-4096-S1	<5.0					10	
RUSH0116.D	1311-4096MS-S1	200.7	200		100.35		10	
RUSH0121.D	1311-4097-S1	20.6					10	
RUSH0122.D	1311-4098-S1	21.2		24.66			10	
RUSH0123.D	1311-4099-S1	31.3					10	
RUSH0124.D	1311-4099MS-S1	233.1	200		100.89		10	
RUSH0125.D	1311-4100-S1	14.8					10	
RUSH0126.D	1311-4101-S1	15.5		5.08			10	
RUSH0127.D	1311-4102-S1	14.0					10	
RUSH0128.D	1311-4102MS-S1	212.8	200		99.38		10	

Analytical Run Information*:
Acceptable Quant Range: 5.0ppb-500.1ppb
Calibration Curve r^2: 0.9999393
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Quality Control Sample Data

Instrument: Hillary
Run ID: H010222

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Q-Test Calculation (N = 3)	Dilution Factor, Nx
HILL0037.D	1311-4001-S1	< 5.0					10
HILL0038.D	1311-4002-S1	< 5.0		N/A			10
HILL0039.D	1311-4003-S1	< 5.0					10
HILL0040.D	1311-4003MS-S1	204.7	200		102.35		10
HILL0041.D	1311-4004-S1	< 5.0					10
HILL0042.D	1311-4005-S1	< 5.0		N/A			10
HILL0043.D	1311-4006-S1	< 5.0					10
HILL0044.D	1311-4006MS-S1	204.3	200		102.15		10
HILL0045.D	1311-4007-S1	51.2					10
HILL0046.D	1311-4008-S1	55.2		29.70			10
HILL0051.D	1311-4009-S1	86.0					10
HILL0052.D	1311-4009MS-S1	256.1	200		85.05		10
HILL0053.D	1311-4010-S1	52.8					10
HILL0054.D	1311-4011-S1	52.4		1.92			10
HILL0055.D	1311-4012-S1	50.9					10
HILL0056.D	1311-4012MS-S1	247.2	200		98.17		10
HILL0057.D	1311-4013-S1	51.1					10
HILL0058.D	1311-4014-S1	52.4		1.48			10
HILL0059.D	1311-4015-S1	52.6					10
HILL0060.D	1311-4015MS-S1	251.1	200		99.29		10
HILL0065.D	1311-4016-S1	51.9					10
HILL0066.D	1311-4017-S1	50.2		1.73			10
HILL0067.D	1311-4018-S1	51.4					10
HILL0068.D	1311-4018MS-S1	245.8	200		97.19		10
HILL0069.D	1311-4019-S1	49.0					10
HILL0070.D	1311-4020-S1	50.7		1.76			10
HILL0071.D	1311-4021-S1	50.2					10
HILL0072.D	1311-4021MS-S1	247.5	200		98.67		10
HILL0073.D	***1311-4022-S1***	***55.8***					10
HILL0074.D	1311-4023-S1	49.3		6.22			10
HILL0079.D	1311-4024-S1	52.2					10
HILL0080.D	1311-4024MS-S1	247.3	200		97.54		10
HILL0081.D	***1311-4025-S1***	***52.0***					10
HILL0082.D	***1311-4026-S1***	***49.7***		2.73			10
HILL0083.D	1311-4027-S1	52.2					10
HILL0084.D	1311-4027MS-S1	249.1	200		98.42		10
HILL0085.D	***1311-4028-S1***	***50.5***					10
HILL0086.D	1311-4029-S1	53.4		3.99			10
HILL0087.D	1311-4030-S1	51.0					10
HILL0088.D	1311-4030MS-S1	248.3	200		98.65		10
HILL0093.D	1311-4031-S1	< 5.0					10
HILL0094.D	1311-4032-S1	< 5.0		N/A			10
HILL0095.D	1311-4033-S1	< 5.0					10
HILL0096.D	1311-4033MS-S1	200.9	200		100.45		10
HILL0097.D	1311-4034-S1	< 5.0					10
HILL0098.D	1311-4035-S1	< 5.0		N/A			10
HILL0099.D	1311-4036-S1	< 5.0					10
HILL0100.D	1311-4036MS-S1	202.3	200		101.16		10
HILL0101.D	1311-4037-S1	36.6					10
HILL0102.D	1311-4038-S1	33.0		11.75			10
HILL0107.D	1311-4039-S1	28.9					10
HILL0108.D	1311-4039MS-S1	224.8	200		97.98		10
HILL0109.D	1311-4040-S1	11.7					10
HILL0110.D	1311-4041-S1	10.4		5.83			10
HILL0111.D	1311-4042-S1	11.3					10
HILL0112.D	1311-4042MS-S1	210.8	200		99.75		10
HILL0113.D	1311-4043-S1	11.5					10
HILL0114.D	1311-4044-S1	9.9		7.95			10
HILL0115.D	1311-4045-S1	10.2					10
HILL0116.D	1311-4045MS-S1	209.8	200		99.81		10
HILL0121.D	1311-4046-S1	13.6					10
HILL0122.D	1311-4047-S1	11.2		9.79			10
HILL0123.D	1311-4048-S1	12.9					10
HILL0124.D	1311-4048MS-S1	211.8	200		99.41		10
HILL0125.D	1311-4049-S1	9.5					10
HILL0126.D	1311-4050-S1	8.7		8.76			10
HILL0127.D	1311-4051-S1	10.4					10
HILL0128.D	1311-4051MS-S1	209.5	200		99.56		10

Analytical Run Information*:
Acceptable Quant Range: 5.0ppb-250.5ppb
Calibration Curve r^2: 0.9983566
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Quality Control Sample Data

Instrument: Hillary
Run ID: H010402 (A)

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %		Dilution Factor, Nx
HILL0032.D	1311-5207-S2	2.852832					2
HILL0033.D	1311-5207MS-S2	190.426303	200		93.79		2
HILL0034.D	1311-5208-S2	9.070036					10
HILL0035.D	1311-5209-S2	9.465038		12.68			10
HILL0036.D	1311-5210-S2	7.399684					10
HILL0037.D	1311-5210MS-S2	180.05532	200		86.33		10
HILL0038.D	1311-5211-S2	16.467401					10
HILL0039.D	1311-5212-S2	20.404356		11.25			10
HILL0040.D	1311-5213-S2	19.825832					10
HILL0041.D	1311-5213MS-S2	204.154139	200		92.16		10
HILL0046.D	1311-5214-S2	105.301943					100
HILL0047.D	1311-5215-S2	92.717039		12.23			100
HILL0048.D	1311-5216-S2	82.480799					100
HILL0049.D	1311-5216MS-S2	259.591125	200		88.56		100
HILL0054.D	1311-4151-S1	< 2.5				IS> 130%	2
HILL0056.D	1311-4152-S1	< 2.5		N/A		IS> 130%	2
HILL0058.D	1311-4153-S1	< 2.5				IS> 130%	2
HILL0060.D	1311-4153MS-S1	98.223696	200		49.11	IS> 130%	2
HILL0062.D	1311-4154-S1	< 2.5				IS> 130%	2
HILL0064.D	1311-4155-S1	< 2.5		N/A		IS> 130%	2
HILL0066.D	1311-4156-S1	< 2.5				IS> 130%	2
HILL0068.D	1311-4156-MS-S1	90.564759	200		45.28	IS> 130%	2
HILL0070.D	1311-4157-S1	< 2.5				IS> 130%	2
HILL0072.D	1311-4158-S1	< 2.5		N/A		IS> 130%	2

Analytical Run Information*:
Acceptable Quant Range: 2.5 - 1002ng/ml
Calibration Curve r^2: 0.9987251
Target Analyte: PFOS
Internal Standard: THPFOS

CMC 5/15/01

Quality Control Sample Data

Instrument: Rush
Run ID: R010329a

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Dilution Factor, Nx
RUSH0037.D	1311-5025-S1	159.93				10
RUSH0038.D	1311-5026-S1	152.92		5.50		10
RUSH0039.D	1311-5027-S1	143.26				10
RUSH0040.D	1311-5027MS-S1	415.70	200		136.22	10
RUSH0041.D	1311-5028-S1	391.37				10
RUSH0042.D	1311-5029-S1	230.09		27.35		10
RUSH0043.D	1311-5030-S1	387.34				10
RUSH0048.D	1311-5030MS-S1	> 501	201		N/A	10
RUSH0049.D	1311-5031-S1	82.81				100
RUSH0050.D	1311-5032-S1	85.11		2.86		100
RUSH0051.D	1311-5033-S1	80.38				100
RUSH0052.D	1311-5033MS-S1	329.29	202		123.22	100
RUSH0053.D	1311-5034-S1	404.55				100
RUSH0054.D	1311-5035-S1	414.16		3.59		100
RUSH0055.D	1311-5036-S1	433.98				100
RUSH0056.D	1311-5036MS-S1	> 501	203		N/A	100
RUSH0057.D	1311-5037-S1	13.57				2
RUSH0062.D	1311-5038-1S	< 5.0		N/A		2
RUSH0063.D	1311-5039-S1	< 5.0				2
RUSH0064.D	1311-5039MS-S1	205.86	204		N/A	2
RUSH0065.D	1311-5040-S1	99.69				2
RUSH0066.D	1311-5041-S1	96.20		27.21		2
RUSH0067.D	1311-5042-S1	58.15				2
RUSH0068.D	1311-5042MS-S1	306.23	205		121.02	2
RUSH0069.D	1311-5043-S1	460.98				2
RUSH0070.D	1311-5044S1	305.78		28.62		2
RUSH0071.D	1311-5045-S1	> 501				2
RUSH0076.D	1311-5045MS-S1	> 501	206		N/A	2
RUSH0077.D	1311-5046-S1	183.73				10
RUSH0078.D	1311-5047-S1	166.25		8.16		10
RUSH0079.D	1311-5048-S1	156.55				10
RUSH0080.D	1311-5048MS-S1	423.27	207		128.85	10
RUSH0081.D	1311-5049-S1	359.52				10
RUSH0082.D	1311-5050-1S	> 501		1.56		10
RUSH0083.D	1311-5051-S1	351.66				10
RUSH0084.D	1311-5051MS-S1	> 501	208		N/A	10
RUSH0085.D	1311-5052-S1	211.71				100
RUSH0090.D	1311-5053-S1	253.43		11.34		100
RUSH0091.D	1311-5054-S1	207.41				100
RUSH0092.D	1311-5054MS-S1	499.47	209		139.74	100
RUSH0093.D	1311-5055-S1	41.77				2
RUSH0094.D	1311-5056-S1	10.29		101.93		2
RUSH0095.D	1311-5057-S1	5.71				2
RUSH0096.D	1311-5057MS-S1	227.32	210		105.53	2
RUSH0097.D	1311-5058-S1	31.83				2
RUSH0098.D	1311-5059-S1	34.15		3.54		2
RUSH0099.D	1311-5060-S1	32.79				2

Analytical Run Information*:
Acceptable Quant Range: 5 - 501ng/ml
Calibration Curve r^2: 0.9997025
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Rush
Run ID: R010329b

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Dilution Factor, Nx
RUSH0120.D	1311-5060MS-S1	254.22				2
RUSH0121.D	1311-5061-S1	135.13				2
RUSH0122.D	1311-5062-S1	141.11		2.93		2
RUSH0123.D	1311-5063-S1	142.97				2
RUSH0124.D	1311-5063MS-S1	427.65	200		142.34	2
RUSH0125.D	1311-5064-S1	83.18				10
RUSH0126.D	1311-5065-S1	77.82		3.84		10
RUSH0127.D	1311-5066-S1	77.95				10
RUSH0128.D	1311-5066MS-S1	329.52	200		125.78	10
RUSH0129.D	1311-5067-S1	179.53				10
RUSH0134.D	1311-5068-S1	187.10		4.30		10
RUSH0135.D	1311-5069-S1	171.68				10
RUSH0136.D	1311-5069MS-S1	465.00	200		146.66	10
RUSH0137.D	1311-5070-S1	101.23				100
RUSH0138.D	1311-5071-S1	103.30		3.99		100
RUSH0139.D	1311-5072-S1	109.27				100
RUSH0140.D	1311-5072MS-S1	359.43	200		125.08	100
RUSH0141.D	1311-5073-S1	< 5.0				2
RUSH0142.D	1311-5074-S1	< 5.0		N/A		2
RUSH0143.D	1311-5075-S1	< 5.0				2
RUSH0148.D	1311-5075MS-S1	207.59	200		103.80	2
RUSH0149.D	1311-5076-S1	75.82				2
RUSH0150.D	1311-5077-S1	75.66		13.95		2
RUSH0151.D	1311-5078-S1	95.65				2
RUSH0152.D	1311-5078MS-S1	324.00	200		114.18	2
RUSH0153.D	1311-5079-S1	486.79				2
RUSH0154.D	1311-5080-S1	> 501		N/A		2
RUSH0155.D	1311-5081-S1	> 501				2
RUSH0156.D	1311-5081MS-S1	> 501	200		N/A	2
RUSH0157.D	1311-5082-S1	238.27				10
RUSH0162.D	1311-5083-S1	236.36		2.72		10
RUSH0163.D	1311-5084-S1	226.44				10
RUSH0164.D	1311-5084MS-S1	> 501	200		N/A	10
RUSH0165.D	1311-5085-S1	> 501				10
RUSH0166.D	1311-5086-S1	> 501		N/A		10
RUSH0167.D	1311-5087-S1	> 501				10
RUSH0168.D	1311-5087MS-S1	> 501	200		N/A	10
RUSH0169.D	1311-5088-S1	303.36				100
RUSH0170.D	1311-5089-S1	279.64		4.37		100
RUSH0171.D	1311-5090-S1	283.95				100
RUSH0176.D	1311-5091-S1	29.08				2
RUSH0177.D	1311-5092-S1	5.29		97.90		2
RUSH0178.D	1311-5093-S1	< 5.0				2
RUSH0179.D	1311-5093MS-S1	221.42	200		110.71	2

Analytical Run Information*:
Acceptable Quant Range: 5.0 - 501ng/ml
Calibration Curve r^2: 0.9998900
Target Analyte: PFOS
Internal Standard: THPFOS

CMC 5/15/01

Quality Control Sample Data

Instrument: Rush
Run ID: R010312

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %		Dilution Factor, Nx
RUSH0030.D	1311-5088-S1	289.8					100
RUSH0031.D	1311-5089-S1	268.9		4.27			100
RUSH0032.D	1311-5090-S1	269.9					100
~~RUSH0033.D~~	~~1311-5090MS-S1~~	~~523.8~~	~~200~~		~~126.95~~	< 501 ng/ml	100
RUSH0034.D	1311-5091-S1	34.6					2
RUSH0035.D	1311-5092-S1	7.3		92.09			2
RUSH0036.D	1311-5093-S1	< 5.0					2
RUSH0037.D	1311-5093MS-S1	203.3	200		101.67		2
RUSH0038.D	1311-5094-S1	49.0					2
RUSH0039.D	1311-5095-S1	54.8		8.86			2
RUSH0044.D	1311-5096-S1	46.2					2
RUSH0045.D	1311-5096MS-S1	263.8	200		108.84		2
RUSH0046.D	1311-5097-S1	191.2					2
RUSH0047.D	1311-5098-S1	249.9		13.77			2
RUSH0048.D	1311-5099-S1	239.1					2
~~RUSH0049.D~~	~~1311-5099MS-S1~~	~~506.0~~	~~200~~		~~133.45~~	< 501 ng/ml	2
RUSH0050.D	1311-5100-S1	153.8					10
RUSH0051.D	1311-5101-S1	140.8		5.82			10
RUSH0052.D	1311-5102-S1	138.0					10
RUSH0053.D	1311-5102MS-S1	370.7	200		116.34		10
RUSH0058.D	1311-5103-S1	321.0					10
RUSH0059.D	1311-5104-S1	306.8		2.77			10
RUSH0060.D	1311-5105-S1	305.4					10
~~RUSH0061.D~~	~~1311-5105MS-S1~~	~~593.8~~	~~200~~		~~144.20~~	< 501 ng/ml	10
RUSH0062.D	1311-5106-S1	180.1					100
RUSH0063.D	1311-5107-S1	176.0		2.64			100
RUSH0064.D	1311-5108-S1	170.2					100
RUSH0065.D	1311-5108MS-S1	407.9	200		118.86		100
RUSH0066.D	1311-5109-S1	13.4					2
RUSH0067.D	1311-5110-S1	< 5.0		N/A			2
RUSH0072.D	1311-5111-S1	< 5.0					2
RUSH0073.D	1311-5111MS-S1	205.6	200		102.81		2
RUSH0074.D	1311-5112-S1	62.4					2
RUSH0075.D	1311-5113-S1	61.1		4.11			2
RUSH0076.D	1311-5114-S1	66.1					2
RUSH0077.D	1311-5114MS-S1	277.7	200		105.79		2
RUSH0078.D	1311-5115-S1	324.3					2
RUSH0079.D	1311-5116-S1	337.1		5.30			2
RUSH0080.D	1311-5117-S1	303.4					2
~~RUSH0081.D~~	~~1311-5117MS-S1~~	~~608.0~~	~~200~~		~~152.35~~	< 501 ng/ml	2
RUSH0086.D	1311-5118-S1	200.5					10
RUSH0087.D	1311-5119-S1	177.7		7.47			10
RUSH0088.D	1311-5120-S1	204.6					10
RUSH0089.D	1311-5120MS-S1	460.9	200		128.13		10
RUSH0090.D	1311-5019-S2	5.2					2
RUSH0091.D	1311-5020-S2	< 5.0		N/A			2
RUSH0092.D	1311-5021-S2	< 5.0					2
RUSH0093.D	1311-5021MS-S2	197.9	200		98.95		2
RUSH0094.D	1311-5022-S2	11.4					2
RUSH0095.D	1311-5023-S2	10.7		5.76			2
RUSH0100.D	1311-5024-S2	12.0					2
RUSH0101.D	1311-5024MS-S2	208.5	200		98.28		2
RUSH0102.D	1311-5025-S2	27.7					2
RUSH0103.D	1311-5026-S2	28.9		11.01			2
RUSH0104.D	1311-5027-S2	23.3					2
RUSH0105.D	1311-5027MS-S2	238.9	200		107.79		2
RUSH0106.D	1311-5028-S2	56.0					2
RUSH0107.D	1311-5029-S2	31.7		30.03			2
RUSH0108.D	1311-5030-S2	57.8					2
RUSH0109.D	1311-5030MS-S2	281.1	200		111.62		2
RUSH0114.D	1311-5031-S2	65.7					2
RUSH0115.D	1311-5032-S2	66.9		4.26			2
RUSH0116.D	1311-5033-S2	71.2					2
RUSH0117.D	1311-5033MS-S2	293.9	200		111.36		2
RUSH0118.D	1311-5034-S2	144.7					2
RUSH0119.D	1311-5035-S2	235.1		23.83			2
RUSH0120.D	1311-5036-S2	189.2					2
RUSH0121.D	1311-5036MS-S2	448.9	200		129.85		2
RUSH0122.D	1311-5055-S2	11.6					2
RUSH0123.D	1311-5056-S2	< 5.0		N/A			2
RUSH0128.D	1311-5057-S2	< 5.0					2
RUSH0129.D	1311-5057MS-S2	206.8	200		103.39		2
RUSH0130.D	1311-5058-S2	10.9					2
RUSH0131.D	1311-5059-S2	11.9		58.59			2
RUSH0132.D	1311-5060-S2	29.0					2
RUSH0133.D	1311-5060MS-S2	245.7	200		108.36		2
RUSH0134.D	1311-5061-S2	75.7					2

Analytical Run Information*:
Acceptable Quant Range: 5 - 501ng/ml
Calibration Curve r^2: 0.9992811
Target Analyte: PFOS
Internal Standard: THPFOS

Quality Control Sample Data

Instrument: Soup
Run ID: s001120a

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Q-Test Calculation (N = 3)
s00120_035	E00-1311-1001 0hr	<24.75				
s00120_036	E00-1311-1002 0hr	<24.75		N/A		
s00120_037	E00-1311-1003 0hr	<24.75				
s00120_038	E00-1311-1004 0hr	<24.75				
s00120_039	E00-1311-1005 0hr	<24.75		N/A		
s00120_043	E00-1311-1006 0hr	<24.75				
s00120_044	E00-1311-1007 0hr	486.97				
s00120_045	E00-1311-1008 0hr	523.02		5.58		
s00120_046	E00-1311-1009 0hr	544.09				
s00120_047	E00-1311-1010 24 hour, 0mg/L, S1, C-1	25.86	**Point thrown out			(1) 1.000
s00120_051	E00-1311-1011 24 hour, 0mg/L, S1, C-1	<24.75		N/A		
s00120_052	E00-1311-1012 24 hour, 0mg/L, S1, C-1	<24.75				
s00120_053	E00-1311-1012 24 hour, 0mg/L, S1, C-1, MS	217.61	200		108.81	
s00120_054	E00-1311-1013 24 hour, 0.10mg/L, S1, C-1	<24.75				
s00120_055	E00-1311-1014 24 hour, 0.10mg/L, S1, C-1	<24.75		N/A		
s00120_059	E00-1311-1015 24 hour, 0.10mg/L, S1, C-1	<24.75				
s00120_060	E00-1311-1015 24 hour, 0.10mg/L, S1, C-1, MS	253.23	200		126.62	
s00120_061	E00-1311-1016 24 hour, 1.0mg/L, S1, C-1	462.08				
s00120_062	E00-1311-1017 24 hour, 1.0mg/L, S1, C-1	475.12		4.65		
s00120_063	E00-1311-1018 24 hour, 1.0mg/L, S1, C-1	505.67				
s00120_067	E00-1311-1018 24 hour, 1.0mg/L, S1, C-1 MS	719.03	200		106.68	
s00120_068	E00-1311-1010 24 hour, 0mg/L, S2, C-1	<24.75				
s00120_069	E00-1311-1011 24 hour, 0mg/L, S2, C-1	<24.75		N/A		
s00120_070	E00-1311-1012 24 hour, 0mg/L, S2, C-1	<24.75				
s00120_071	E00-1311-1012 24 hour, 0mg/L, S2, C-1, MS	248.01	200		124.01	
s00120_075	E00-1311-1013 24 hour, 0.10mg/L, S2, C-1	<24.75				
s00120_076	E00-1311-1014 24 hour, 0.10mg/L, S2, C-1	<24.75		N/A		
s00120_077	E00-1311-1015 24 hour, 0.10mg/L, S2, C-1	<24.75				
s00120_078	E00-1311-1015 24 hour, 0.10mg/L, S2, C-1, MS	254.5	200		127.25	
s00120_079	E00-1311-1016 24 hour, 1.0mg/L, S2, C-1	110.87				
s00120_083	E00-1311-1017 24 hour, 1.0mg/L, S2, C-1	118.37		11.15		
s00120_084	E00-1311-1018 24 hour, 1.0mg/L, S2, C-1	137.3				
s00120_085	E00-1311-1018 24 hour, 1.0mg/L, S2, C-1, MS	344.75	200		103.73	

Analytical Run Information*:
Acceptable Quant Range: 24.75ppb-991.78ppb
Calibration Curve r^2:0.996939
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

(1) Area counts for these 3 samples:
3116
1084
540
Qtest Result: 0.7888
∴ point discarded

(AC) cmc 4-19-01

Quality Control Sample Data

Instrument: Soup
Run ID: s001120b

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %
s00120_103	E00-1311-1019 24 hour, 0mg/L, S1, C-2	<24.75			
s00120_104	E00-1311-1020 24 hour, 0mg/L, S1, C-2	<24.75		N/A	
s00120_105	E00-1311-1021 24 hour, 0mg/L, S1, C-2	<24.75			
s00120_106	E00-1311-1021 24 hour, 0mg/L, S1, C-2, MS	340.34	200		170.17
s00120_110	E00-1311-1022 24 hour, 0.10mg/L, S1, C-2	<24.75			
s00120_111	E00-1311-1023 24 hour, 0.10mg/L, S1, C-2	<24.75		N/A	
s00120_112	E00-1311-1024 24 hour, 0.10mg/L, S1, C-2	<24.75			
s00120_113	E00-1311-1024 24 hour, 0.10mg/L, S1, C-2, MS	374.07	200		187.04
s00120_114	E00-1311-1025 24 hour, 1.0mg/L, S1, C-2	457.51			
s00120_118	E00-1311-1026 24 hour, 1.0mg/L, S1, C-2	475.62		2.92	
s00120_119	E00-1311-1027 24 hour, 1.0mg/L, S1, C-2	484.59			
s00120_120	E00-1311-1027 24 hour, 1.0mg/L, S1, C-2, MS	790.19	200		152.80
s00120_121	E00-1311-1028 24 hour, 0mg/L, S1, C-3	29.19			
s00120_122	E00-1311-1029 24 hour, 0mg/L, S1, C-3	<24.75		N/A	
s00120_126	E00-1311-1030 24 hour, 0mg/L, S1, C-3	<24.75			
s00120_127	E00-1311-1030 24 hour, 0mg/L, S1, C-3 MS	366.46	200		183.23
s00120_128	E00-1311-1031 24 hour, 0.10mg/L, S1, C-3	<24.75			
s00120_129	E00-1311-1032 24 hour, 0.10mg/L, S1, C-3	<24.75		N/A	
s00120_130	E00-1311-1033 24 hour, 0.10mg/L, S1, C-3	<24.75			
s00120_134	E00-1311-1033 24 hour, 0.10mg/L, S1, C-3 MS	391.81	200		195.91
s00120_135	E00-1311-1034 24 hour, 1.0mg/L, S1, C-3	465.89			
s00120_136	E00-1311-1035 24 hour, 1.0mg/L, S1, C-3	490.88		3.21	
s00120_137	E00-1311-1036 24 hour, 1.0mg/L, S1, C-3	494.39			
s00120_138	E00-1311-1036 24 hour, 1.0mg/L, S1, C-3 MS	824.37	200		164.99
s00120_142	E00-1311-1037 24 hour, 0mg/L, S1, C-4	442.75			
s00120_143	E00-1311-1038 24 hour, 0mg/L, S1, C-4	28.04		124.58	
s00120_144	E00-1311-1039 24 hour, 0mg/L, S1, C-4	<24.75			
s00120_145	E00-1311-1039 24 hour, 0mg/L, S1, C-4 MS	376.04	200		188.02
s00120_146	E00-1311-1040 24 hour, 0.10mg/L, S1, C-4	<24.75			
s00120_150	E00-1311-1041 24 hour, 0.10mg/L, S1, C-4	<24.75		N/A	
s00120_151	E00-1311-1042 24 hour, 0.10mg/L, S1, C-4	<24.75			
s00120_152	E00-1311-1042 24 hour, 0.10mg/L, S1, C-4 MS	389	200		194.50
s00120_153	E00-1311-1043 24 hour, 1.0mg/L, S1, C-4	417.87			
s00120_154	E00-1311-1044 24 hour, 1.0mg/L, S1, C-4	455.03		5.94	
s00120_158	E00-1311-1045 24 hour, 1.0mg/L, S1, C-4	469.4			
s00120_159	E00-1311-1045 24 hour, 1.0mg/L, S1, C-4 MS	466.25	200		-1.57

Analytical Run Information*:

Acceptable Quant Range: 24.75ppb-991.78ppb
Calibration Curve r^2:0.982880
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Quality Control Sample Data

Instrument: Soup
Run ID: s001122a

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Q-Test Calculation (N = 3)
s00122a_035	E00-1311-1019 24 hour, 0mg/L, S2, C-2	<24.75				
s00122a_036	E00-1311-1020 24 hour, 0mg/L, S2, C-2	<24.75		N/A		
s00122a_037	E00-1311-1021 24 hour, 0mg/L, S2, C-2	<24.75				
s00122a_038	E00-1311-1021 24 hour, 0mg/L, S2, C-2, MS	489.95	200		244.98	
s00122a_042	E00-1311-1022 24 hour, 0.10mg/L, S2, C-2	<24.75				
s00122a_043	E00-1311-1023 24 hour, 0.10mg/L, S2, C-2	<24.75		N/A		
s00122a_044	E00-1311-1024 24 hour, 0.10mg/L, S2, C-2	<24.75				
s00122a_045	E00-1311-1024 24 hour, 0.10mg/L, S2, C-2, MS	473.79	200		236.90	
s00122a_046	E00-1311-1025 24 hour, 1.0mg/L, S2, C-2	71.39				
s00122a_050	E00-1311-1026 24 hour, 1.0mg/L, S2, C-2	99.23		16.25		
s00122a_051	E00-1311-1027 24 hour, 1.0mg/L, S2, C-2	88.02				
s00122a_052	E00-1311-1027 24 hour, 1.0mg/L, S2, C-2, MS	540.69	200		226.34	
s00122a_053	E00-1311-1028 24 hour, 0mg/L, S2, C-3	<24.75				
s00122a_054	E00-1311-1029 24 hour, 0mg/L, S2, C-3	<24.75		N/A		
s00122a_058	E00-1311-1030 24 hour, 0mg/L, S2, C-3	<24.75				
s00122a_059	E00-1311-1030 24 hour, 0mg/L, S2, C-3 MS	439.66	200		219.83	
s00122a_060	E00-1311-1031 24 hour, 0.10mg/L, S2, C-3	<24.75				
s00122a_061	E00-1311-1032 24 hour, 0.10mg/L, S2, C-3	<24.75		N/A		
s00122a_062	E00-1311-1033 24 hour, 0.10mg/L, S2, C-3	<24.75				
s00122a_066	E00-1311-1033 24 hour, 0.10mg/L, S2, C-3 MS	459.97	200		229.99	
s00122a_067	E00-1311-1034 24 hour, 1.0mg/L, S2, C-3	261.99				
s00122a_068	E00-1311-1035 24 hour, 1.0mg/L, S2, C-3	201.55		32.43		-0.531145761
s00122a_069	E00-1311-1036 24 hour, 1.0mg/L, S2, C-3	133.08				
s00122a_070	E00-1311-1036 24 hour, 1.0mg/L, S2, C-3 MS	625.5	200		246.21	
s00122a_074	E00-1311-1037 24 hour, 0mg/L, S2, C-4	<24.75				
s00122a_075	E00-1311-1038 24 hour, 0mg/L, S2, C-4	<24.75		N/A		
s00122a_076	E00-1311-1039 24 hour, 0mg/L, S2, C-4	<24.75				
s00122a_077	E00-1311-1039 24 hour, 0mg/L, S2, C-4 MS	449.6	200		224.80	
s00122a_078	E00-1311-1040 24 hour, 0.10mg/L, S2, C-4	<24.75				
s00122a_082	E00-1311-1041 24 hour, 0.10mg/L, S2, C-4	<24.75		N/A		
s00122a_083	E00-1311-1042 24 hour, 0.10mg/L, S2, C-4	<24.75				
s00122a_084	E00-1311-1042 24 hour, 0.10mg/L, S2, C-4 MS	439.78	200		219.89	
s00122a_085	E00-1311-1043 24 hour, 1.0mg/L, S2, C-4	25.99				
s00122a_086	E00-1311-1044 24 hour, 1.0mg/L, S2, C-4	84.89		69.38		0.920373514
s00122a_090	E00-1311-1045 24 hour, 1.0mg/L, S2, C-4	30.68				
s00122a_091	E00-1311-1045 24 hour, 1.0mg/L, S2, C-4 MS	496.84	200		233.08	

Analytical Run Information*:

Acceptable Quant Range: 24.75ppb-495.9ppb
Calibration Curve r^2:0.998460
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Quality Control Sample Data

Instrument: Tucker
Run ID: t010122

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %
t010122_040	E00-1311-2001, 0ug PFOS, control,1/22/01 CMC	<25.0			
t010122_041	E00-1311-2002, 0ug PFOS, control,1/22/01 CMC	<25.0		N/A	
t010122_042	E00-1311-2003, 0ug PFOS, control,1/22/01 CMC	<25.0			
t010122_043	E00-1311-2003ms, 0ug PFOS, control,1/22/01 CMC	194.28	200		97.14
t010122_044	E00-1311-2004, 0.75ug PFOS, control,1/22/01 CMC	95.92			
t010122_048	E00-1311-2005, 0.75ug PFOS, control,1/22/01 CMC	96.85		0.77	
t010122_049	E00-1311-2006, 0.75ug PFOS, control,1/22/01 CMC	95.39			
t010122_050	E00-1311-2006ms, 0.75ug PFOS, control,1/22/01 CMC	331.94	200		118.28
t010122_051	E00-1311-2007, 7.5ug PFOS, control,1/22/01 CMC	802.01			
t010122_052	E00-1311-2008, 7.5ug PFOS, control,1/22/01 CMC	587.71		15.72	
t010122_056	E00-1311-2009, 7.5ug PFOS, control,1/22/01 CMC	671.3			
t010122_057	E00-1311-2009ms, 7.5ug PFOS, control,1/22/01 CMC	757.91	200		43.31
t010122_058	E00-1311-2010, 0ug PFOS, Clay,1/22/01 CMC	<25.0			
t010122_059	E00-1311-2011, 0ug PFOS, Clay,1/22/01 CMC	<25.0		N/A	
t010122_060	E00-1311-2012, 0ug PFOS, Clay,1/22/01 CMC	<25.0			
t010122_064	E00-1311-2012ms, 0ug PFOS, Clay,1/22/01 CMC	174.47	200		87.24
t010122_065	E00-1311-2013, 0.75ug PFOS, Clay,1/22/01 CMC	63.71			
t010122_066	E00-1311-2014, 0.75ug PFOS, Clay,1/22/01 CMC	75.13		9.11	
t010122_067	E00-1311-2015, 0.75ug PFOS, Clay,1/22/01 CMC	74.74			
t010122_068	E00-1311-2015ms, 0.75ug PFOS, Clay,1/22/01 CMC	275.64	200		100.45
t010122_072	E00-1311-2016, 7.5ug PFOS, Clay,1/22/01 CMC	627.98			
t010122_073	E00-1311-2017, 7.5ug PFOS, Clay,1/22/01 CMC	682.43		19.48	
t010122_074	E00-1311-2018, 7.5ug PFOS, Clay,1/22/01 CMC	461.56			
t010122_075	E00-1311-2018ms, 7.5ug PFOS, Clay,1/22/01 CMC	897.56	200		218.00
t010122_076	E00-1311-2019, 0ug PFOS, Sediment,1/22/01 CMC	<25.0			
t010122_080	E00-1311-2020, 0ug PFOS, Sediment,1/22/01 CMC	<25.0		N/A	
t010122_081	E00-1311-2021, 0ug PFOS, Sediment,1/22/01 CMC	<25.0			
t010122_082	E00-1311-2021ms, 0ug PFOS, Sediment,1/22/01 CMC	192.1	200		96.05
t010122_083	E00-1311-2022, 0.75ug PFOS, Sediment,1/22/01 CMC	109.78			
t010122_084	E00-1311-2023, 0.75ug PFOS, Sediment,1/22/01 CMC	89.72		12.43	
t010122_088	E00-1311-2024, 0.75ug PFOS, Sediment,1/22/01 CMC	88.54			
t010122_089	E00-1311-2024ms, 0.75ug PFOS, Sediment,1/22/01 CMC	250.93	200		81.20
t010122_090	E00-1311-2025, 7.5ug PFOS, Sediment,1/22/01 CMC	568.24			
t010122_091	E00-1311-2026, 7.5ug PFOS, Sediment,1/22/01 CMC	608.75		4.88	
t010122_092	E00-1311-2027, 7.5ug PFOS, Sediment,1/22/01 CMC	625.2			
t010122_096	E00-1311-2027ms, 7.5ug PFOS, Sediment,1/22/01 CMC	930.32	200		152.56

Analytical Run Information*:

Acceptable Quant Range: 25ppb-1000ppb
Calibration Curve r^2:0.996956
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Quality Control Sample Data

Instrument: Soup
Run ID: s001211

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Q-Test Calculation (N = 3)
s001211_036	10x E00-1311-3022-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	<40.0				
s001211_037	10x E00-1311-3023-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	<40.0		N/A		
s001211_038	10x E00-1311-3024-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	<40.0				
s001211_039	10x E00-1311-3024ms-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	196.55	200		98.28	
s001211_040	10x E00-1311-3025-S1 0.0mg/L, 48hr, 1:5 Clay, 12/07/00	<40.0				
s001211_044	10x E00-1311-3026-S1 0.0mg/L, 48hr, 1:5 Clay, 12/07/00	<40.0		N/A		
s001211_045	10x E00-1311-3027-S1 0.0mg/L, 48hr, 1:5 Clay, 12/07/00	<40.0				
s001211_046	10x E00-1311-3027ms-S1 0.0mg/L, 48hr, 1:5 Clay, 12/07/00	185.82	200		92.91	
s001211_047	10x E00-1311-3028-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	<40.0				
s001211_048	10x E00-1311-3029-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	<40.0		N/A		
s001211_052	10x E00-1311-3030-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	<40.0				
s001211_053	10x E00-1311-3030ms-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	399.71	200		199.86	
s001211_054	10x E00-1311-3058-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	130.4				
s001211_055	10x E00-1311-3059-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	114.48		8.66		
s001211_056	10x E00-1311-3060-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	111.17				
s001211_060	10x E00-1311-3060ms-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	306.74	200		97.79	
s001211_061	10x E00-1311-3061-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	293.97				
s001211_062	10x E00-1311-3062-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	314.29		4.62		
s001211_063	10x E00-1311-3063-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	287.97				
s001211_064	10x E00-1311-3063ms-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	655.16	200		183.60	
s001211_068	10x E00-1311-3064-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	118.92				
s001211_069	10x E00-1311-3065-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	305.1	**Point Thrown out	5.57		0.947577613
s001211_070	10x E00-1311-3066-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	128.68				
s001211_071	10x E00-1311-3066ms-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	309.9	200		90.61	
s001211_072	10x E00-1311-3085-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07/00	131.97				
s001211_076	10x E00-1311-3086-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07/00	138.13		49.88		-0.93414582
s001211_077	10x E00-1311-3087-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07/00	44.59				
s001211_078	10x E00-1311-3087ms-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07/00	433.65	200		194.53	
s001211_079	10x E00-1311-3088-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07/00	103.26				
s001211_080	10x E00-1311-3089-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07/00	119.9		11.27		
s001211_084	10x E00-1311-3090-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07/00	129.42				
s001211_085	10x E00-1311-3090ms-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07/00	334.95	200		102.77	
s001211_086	10x E00-1311-3091-S1, 0.5mg/L, 36hr, 1:25Clay, 12/07/00	299.09				
s001211_087	10x E00-1311-3092-S1, 0.5mg/L, 36hr, 1:25Clay, 12/07/00	313.39		3.94		
s001211_088	10x E00-1311-3093-S1, 0.5mg/L, 36hr, 1:25Clay, 12/07/00	289.84				
s001211_092	10x E00-1311-3093ms-S1, 0.5mg/L, 36hr, 1:25Clay, 12/07/00	497.01	200		103.59	
s001211_093	10x E00-1311-3094-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	59.14				
s001211_094	10x E00-1311-3095-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	62.46		8.29		
s001211_095	10x E00-1311-3096-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	69.48				
s001211_096	10x E00-1311-3096ms-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	345.73	200		138.13	
s001211_100	10x E00-1311-3097-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	92.9				
s001211_101	10x E00-1311-3098-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	107.09		7.65		
s001211_102	10x E00-1311-3099-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	95.6				
s001211_103	10x E00-1311-3099ms-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	286.04	200		95.22	
s001211_104	10x E00-1311-3100-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	301.56				
s001211_108	10x E00-1311-3101-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	331.37		8.98		
s001211_109	10x E00-1311-3102-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	361.05				
s001211_110	10x E00-1311-3102ms-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	555.88	200		97.42	

Analytical Run Information*:

Acceptable Quant Range: 40.0ppb-1001.7ppb
Calibration Curve r^2:0.992493
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Quality Control Sample Data

Instrument: Tucker
Run ID: t001215

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Q-Test Calculation (N = 3)
t001215_037	10x E00-1311-3007	<25.0				
t001215_038	10x E00-1311-3008	<25.0		N/A		
t001215_039	10x E00-1311-3009	<25.0				
t001215_040	10x E00-1311-3009ms	209.9	200		104.95	
t001215_041	10x E00-1311-3010	<25.0				
t001215_045	10x E00-1311-3011	<25.0		N/A		
t001215_046	10x E00-1311-3012	<25.0				
t001215_047	10x E00-1311-3012ms	189.67	200		94.84	
t001215_048	10x E00-1311-3130	98.66				
t001215_049	10x E00-1311-3131	92.97		6.26		
t001215_053	10x E00-1311-3132	87.04				
t001215_054	10x E00-1311-3132ms	263.27	200		88.12	
t001215_055	10x E00-1311-3133	396.95				
t001215_056	10x E00-1311-3134	233.83		28.43		
t001215_057	10x E00-1311-3135	271.08				
t001215_061	10x E00-1311-3135ms	449.46	200		89.19	
t001215_062	10x E00-1311-3136	322.07				
t001215_063	10x E00-1311-3137	341.64		3.32		
t001215_064	10x E00-1311-3138	340.94				
t001215_065	10x E00-1311-3138ms	476.71	200		67.89	
t001215_069	10x E00-1311-3139	65.07				
t001215_070	10x E00-1311-3140	80.84		27.29		
t001215_071	10x E00-1311-3141	45.98				
t001215_072	10x E00-1311-3141ms	235.33	200		94.68	
t001215_073	10x E00-1311-3142	248.78				
t001215_077	10x E00-1311-3143	247.05		4.68		
t001215_078	10x E00-1311-3144	268.5				
t001215_079	10x E00-1311-3144ms	419.1	200		75.30	
t001215_080	10x E00-1311-3145	355.44				
t001215_081	10x E00-1311-3146	338.22		2.84		
t001215_085	10x E00-1311-3147	355.34				
t001215_086	10x E00-1311-3147ms	533.78	200		89.22	
t001215_087	10x E00-1311-3148	71.71				
t001215_088	10x E00-1311-3149	57.44		32.06		0.405397727
t001215_089	10x E00-1311-3150	36.51				
t001215_093	10x E00-1311-3150ms	242.07	200		102.78	
t001215_094	10x E00-1311-3151	229.84				
t001215_095	10x E00-1311-3152	237.34		3.66		
t001215_096	10x E00-1311-3153	220.6				
t001215_097	10x E00-1311-3153ms	410.32	200		84.86	
t001215_116	10x E00-1311-3154	355.21				
t001215_117	10x E00-1311-3155	320.83		7.97		
t001215_118	10x E00-1311-3156	304.11				
t001215_119	10x E00-1311-3156ms	479.86	200		87.88	
t001215_120	10x E00-1311-3157	83.87				
t001215_124	10x E00-1311-3158	80.37		25.55		
t001215_125	10x E00-1311-3159	50.58				
t001215_126	10x E00-1311-3159ms	224.6	200		67.01	
t001215_127	10x E00-1311-3160	208.79				
t001215_128	10x E00-1311-3161	212.87		10.98		
t001215_132	10x E00-1311-3162	253.48				
t001215_133	10x E00-1311-3162ms	368.04	201		57.00	
t001215_134	10x E00-1311-3163	319.84				
t001215_135	10x E00-1311-3164	318.04		9.06		
t001215_136	10x E00-1311-3165	371.72				
t001215_140	10x E00-1311-3165ms	537.56	202		82.10	
t001215_141	10x E00-1311-3166	68.64				
t001215_142	10x E00-1311-3167	60.37		37.76		-0.78328092
t001215_143	10x E00-1311-3168	30.48				
t001215_144	10x E00-1311-3168ms	207.13	203		87.02	
t001215_148	10x E00-1311-3169	198.79				
t001215_149	10x E00-1311-3170	237.42		10.89		
t001215_150	10x E00-1311-3171	196.59				
t001215_151	10x E00-1311-3171ms	361.74	204		80.96	
t001215_152	10x E00-1311-3172	304.44				
t001215_156	10x E00-1311-3173	368.92		9.63		
t001215_157	10x E00-1311-3174	346.66				
t001215_158	10x E00-1311-3174ms	443.98	205		47.46	
t001215_162	10x E00-1311-3184	<25.0				
t001215_163	10x E00-1311-3185	<25.0		N/A		
t001215_164	10x E00-1311-3186	<25.0				
t001215_165	10x E00-1311-3186ms	190.14	206		92.30	
t001215_166	10x E00-1311-3187	<25.0				
t001215_170	10x E00-1311-3188	<25.0		N/A		
t001215_171	10x E00-1311-3189	<25.0				
t001215_172	10x E00-1311-3189ms	166.28	207		80.33	
t001215_173	10x E00-1311-3190	<25.0				
t001215_174	10x E00-1311-3191	<25.0		N/A		
t001215_178	10x E00-1311-3192	<25.0				
t001215_179	10x E00-1311-3192ms	187.64	208		90.21	

Analytical Run Information*:
Acceptable Quant Range: 25.0ppb-1001.7ppb
Calibration Curve r^2:0.996117
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Quality Control Sample Data

Instrument: Soup
Run ID: s001207

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Q-Test Calculation (N = 3)
s001207_036	10x E00-1311-3001-S1, 0.0mg/L, 0hr, No soil, 12/07/00	<25.0				
s001207_037	10x E00-1311-3002-S1, 0.0mg/L, 0hr, No soil, 12/07/00	<25.0		N/A		
s001207_038	10x E00-1311-3003-S1, 0.0mg/L, 0hr, No soil, 12/07/00	<25.0				
s001207_039	10x E00-1311-3003ms-S1 0.0mg/L, 0hr, No soil, 12/07/00	243.94	200		121.97	
s001207_040	10x E00-1311-3004-S1 0.5mg/L, 0hr, No soil, 12/07/00	<25.0				
s001207_044	10x E00-1311-3005-S1, 0.5mg/L, 0hr, No soil, 12/07/00	<25.0		N/A		
s001207_045	10x E00-1311-3006-S1, 0.5mg/L, 0hr, No soil, 12/07/00	<25.0				
s001207_046	10x E00-1311-3006ms-S1,0.5mg/L, 0hr, No soil, 12/07/00	341.05	200		170.53	
s001207_047	10x E00-1311-3013-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	<25.0				
s001207_048	10x E00-1311-3014-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	<25.0		N/A		
s001207_052	10x E00-1311-3015-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	<25.0				
s001207_053	10x E00-1311-3015ms-S1,0.0mg/L, 0hr, 1:1clay, 12/07/00	463.23	200		231.62	
s001207_054	10x E00-1311-3016-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	<25.0				
s001207_055	10x E00-1311-3017-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	<25.0		N/A		
s001207_056	10x E00-1311-3018-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	<25.0				
s001207_060	10x E00-1311-3018ms-S1,0.0mg/L, 0hr, 1:5clay, 12/07/00	151.28	200		75.64	
s001207_061	10x E00-1311-3019-S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	398.29				
s001207_062	10x E00-1311-3020-S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	449.17		8.49		
s001207_063	10x E00-1311-3021S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	<25.0				
s001207_064	10x E00-1311-3021ms-S1,0.0mg/L,0hr, 1:25clay, 12/07/00	267.37	200		133.69	
s001207_068	10x E00-1311-3031-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	26.41				
s001207_069	10x E00-1311-3032-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	47.72		48.96		0.560980635
s001207_070	10x E00-1311-3033-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	74.95				
s001207_071	10x E00-1311-3033ms-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	547.85	200		236.45	
s001207_072	10x E00-1311-3034-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	366				
s001207_076	10x E00-1311-3035-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	389.48		3.61		
s001207_077	10x E00-1311-3036-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	390.3				
s001207_078	10x E00-1311-3036ms-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	554.07	200		81.89	
s001207_079	10x E00-1311-3037-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	427.38				
s001207_080	10x E00-1311-3038-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	401.2		5.82		
s001207_084	10x E00-1311-3039-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	450.84				
s001207_085	10x E00-1311-3039ms-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	447.93	200		-1.45	
s001207_104	10x E00-1311-3040-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	144.29				
s001207_105	10x E00-1311-3041-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	98.63		38.55		-0.394590294
s001207_106	10x E00-1311-3042-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	68.87				
s001207_110	10x E00-1311-3042ms-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	250.89	200		91.01	
s001207_111	10x E00-1311-3043-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	<25.0				
s001207_112	10x E00-1311-3044-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	155.7		7.05		
s001207_113	10x E00-1311-3045-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	140.92				
s001207_114	10x E00-1311-3045ms-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	351.48	200		105.28	
s001207_118	10x E00-1311-3046-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	317.1				
s001207_119	10x E00-1311-3047-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	318.56		1.54		
s001207_120	10x E00-1311-3048-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	326.3				
s001207_121	10x E00-1311-3048ms-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	515.02	200		94.36	
s001207_122	10x E00-1311-3049-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	113.88				
s001207_126	10x E00-1311-3050-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	88.39		14.03		
s001207_127	10x E00-1311-3051-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	92.13				
s001207_128	10x E00-1311-3051ms-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	431.57	200		169.72	
s001207_129	10x E00-1311-3052-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	126.4				
s001207_130	10x E00-1311-3053-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	113.16		9.49		
s001207_134	10x E00-1311-3054-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	136.92				
s001207_135	10x E00-1311-3054ms-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	333.48	201		97.79	
s001207_136	10x E00-1311-3055-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	326.15				
s001207_137	10x E00-1311-3056-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	326.21		1.20		
s001207_138	10x E00-1311-3057-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	319.46				
s001207_142	10x E00-1311-3057ms-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	525.54	202		102.02	
s001207_143	10x E00-1311-3067-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	119.29				
s001207_144	10x E00-1311-3068-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	99.92		26.47		
s001207_145	10x E00-1311-3069-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	166.04				
s001207_146	10x E00-1311-3069ms-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	438.97	203		134.45	
s001207_150	10x E00-1311-3070-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	140.62				
s001207_151	10x E00-1311-3071-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	136.17		5.72		
s001207_152	10x E00-1311-3072-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	152.02				
s001207_153	10x E00-1311-3072ms-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	373.61	204		108.62	
s001207_154	10x E00-1311-3073-S1,0.5mg/L,16hr, 1:25clay, 12/07/00	330.98				
s001207_158	10x E00-1311-3074-S1,0.5mg/L,16hr, 1:25clay, 12/07/00	321.53		3.83		
s001207_159	10x E00-1311-3075-S1,0.5mg/L,16hr, 1:25clay, 12/07/00	346.78				
s001207_160	10x E00-1311-3075ms-S1,0.5mg/L,16hr,1:25clay, 12/07/00	518.38	205		83.71	

Analytical Run Information*:

Acceptable Quant Range: 25.0ppb-1001.7ppb
Calibration Curve r^2:0.996026
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Quality Control Sample Data

Instrument: Hillary
Run ID: H001214a &b

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %
Hill0037.D	1311-3076-S1	125.100			
Hill0038.D	1311-3077-S1	105.408		54.29	
Hill0039.D	1311-3078-S1	34.090			
Hill0040.D	1311-3078ms-S1	275.722	200		120.82
Hill0041.D	1311-3079-S1	116.696			
Hill0045.D	1311-3080-S1	110.212		9.45	
Hill0046.D	1311-3081-S1	96.723			
Hill0047.D	1311-3081-ms-S1	280.717	200		92.00
Hill0048.D	1311-3082-S1	288.554			
Hill0049.D	1311-3083-S1	284.213		0.86	
Hill0053.D	1311-3084-S1	288.461			
Hill0054.D	1311-3084ms-S1	471.663	200		91.60
Hill0055.D	1311-3103-S1	118.316			
Hill0056.D	1311-3104-S1	121.886		17.37	
Hill0057.D	1311-3105-S1	87.387			
Hill0061.D	1311-3105ms-S1	284.067	200		98.34
Hill0062.D	1311-3106-S1	451.551			
Hill0063.D	1311-3107-S1	442.987		0.96	
Hill0064.D	1311-3108-S1	447.692			
Hill0065.D	1311-3108ms-S1	647.955	200		100.13
Hill0069.D	1311-3109-S1	402.850			
Hill0070.D	1311-3110-S1	428.582		3.33	
Hill0071.D	1311-3111-S1	425.083			
Hill0072.D	1311-3111ms-S1	611.097	200		93.01
Hill0073.D	1311-3112-S1	78.065			
Hill0077.D	1311-3113-S1	85.862		18.33	
Hill0078.D	1311-3114-S1	59.321			
Hill0079.D	1311-3114ms-S1	269.160	200		104.92
Hill0080.D	1311-3115-S1	247.502			
Hill0081.D	1311-3116-S1	268.700		15.44	
Hill0101.D	E1311-3117-S1	331.41			
Hill0102.D	E1311-3117-MS-S1	448.22	200		58.40
Hill0103.D	E1311-3118-S1	365.63			
Hill0104.D	E1311-3119-S1	<25.0		N/A	
Hill0105.D	E1311-3120-S1	<25.0			
Hill0109.D	E1311-3120-MS-S1	183.42	200		91.71
Hill0110.D	E1311-3121-S1	<25.0			
Hill0111.D	E1311-3122-S1	80.43		16.41	
Hill0112.D	E1311-3123-S1	63.71			
Hill0113.D	E1311-3123-MS-S1	209.01	200		72.65
Hill0117.D	E1311-3124-S1	242.86			
Hill0118.D	E1311-3125-S1	246.91		0.83	
Hill0119.D	E1311-3126-S1	245.14			
Hill0120.D	E1311-3126-MS-S1	424.19	200		89.53
Hill0121.D	E1311-3127-S1	380.34			
Hill0125.D	E1311-3128-S1	374.21		1.55	
Hill0126.D	E1311-3129-S1	368.76			
Hill0127.D	E1311-3129-MS-S1	541.70	200		86.47
Hill0128.D	E1311-3175-S1	<25.0			
Hill0129.D	E1311-3176-S1	<25.0		N/A	
Hill0133.D	E1311-3177-S1	<25.0			
Hill0134.D	E1311-3177-MS-S1	241.96	201		120.38
Hill0135.D	E1311-3178-S1	<25.0			
Hill0136.D	E1311-3179-S1	<25.0		N/A	
Hill0137.D	E1311-3180-S1	<25.0			
Hill0141.D	E1311-3180-MS-S1	184.71	202		91.44
Hill0142.D	E1311-3181-S1	<25.0			
Hill0143.D	E1311-3182-S1	<25.0		N/A	
Hill0144.D	E1311-3183-S1	<25.0			
Hill0145.D	E1311-3183-MS-S1	188.61	203		93.01

Analytical Run Information*:

Acceptable Quant Range: 25.0ppb-1001.7ppb(a and b)
Calibration Curve r^2:0.9998(a), 0.9998(b)
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Quality Control Sample Data

Instrument: Tucker
Run ID: t010123

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %	Q-Test Calculation (N = 3)
t010123_002	10x E00-1311-3007-S2, 0mg/L PFOS,no soil, 48h,1/03/01 CMC	<25.0				
t010123_003	10x E00-1311-3008-S2, 0mg/L PFOS,no soil, 48h,1/03/01 CMC	<25.0		N/A		
t010123_004	10x E00-1311-3009-S2, 0mg/L PFOS,no soil, 48h,1/03/01 CMC	<25.0				
t010123_005	10x E00-1311-3009ms-S2, 0mg/L PFOS,no soil, 48h,1/03/01 CMC	174.31	200		87.16	
t010123_006	10x E00-1311-3010-S2, 5mg/L PFOS,no soil, 48h,1/03/01 CMC	<25.0				
t010123_010	10x E00-1311-3011-S2, 5mg/L PFOS,no soil, 48h,1/03/01 CMC	<25.0		N/A		
t010123_011	10x E00-1311-3012-S2, 0mg/L PFOS,no soil, 48h,1/03/01 CMC	<25.0				
t010123_012	10x E00-1311-3012ms-S2, 0mg/L PFOS,no soil, 48h,1/03/01 CMC	194.29	200		97.15	
t010123_013	10x E00-1311-3022-S2, 0mg/L PFOS,1:1 clay, 48h,1/03/01 CMC	<25.0				
t010123_014	10x E00-1311-3023-S2, 0mg/L PFOS,1:1 clay, 48h,1/03/01 CMC	<25.0		N/A		
t010123_018	10x E00-1311-3024-S2, 0mg/L PFOS,1:1 clay, 48h,1/03/01 CMC	<25.0				
t010123_019	10x E00-1311-3024ms-S2, 0mg/L PFOS,1:1 clay, 48h,1/03/01 CMC	170.06	200		85.03	
t010123_020	10x E00-1311-3025-S2, 0mg/L PFOS,1:5 clay, 48h,1/03/01 CMC	<25.0				
t010123_021	10x E00-1311-3026-S2, 0mg/L PFOS,1:5 clay, 48h,1/03/01 CMC	<25.0		N/A		
t010123_022	10x E00-1311-3027-S2, 0mg/L PFOS,1:5 clay, 48h,1/03/01 CMC	<25.0				
t010123_026	10x E00-1311-3027ms-S2, 0mg/L PFOS,1:5 clay, 48h,1/03/01 CMC	129.49	200		64.75	
t010123_027	10x E00-1311-3028-S2, 0mg/L PFOS,1:25 clay, 48h,1/03/01 CMC	<25.0				
t010123_028	10x E00-1311-3029-S2, 0mg/L PFOS,1:25 clay, 48h,1/03/01 CMC	<25.0		N/A		
t010123_029	10x E00-1311-3030-S2, 0mg/L PFOS,1:25 clay, 48h,1/03/01 CMC	<25.0				
t010123_030	10x E00-1311-3030ms-S2, 0mg/L PFOS,1:25 clay, 48h,1/03/01 CMC	154.79	200		77.40	
t010123_034	10x E00-1311-3094-S2, 5mg/L PFOS,1:1 clay, 48h,1/03/01 CMC	95.36				
t010123_035	10x E00-1311-3095-S2, 5mg/L PFOS,1:1 clay, 48h,1/03/01 CMC	112.93		27.05		
t010123_036	10x E00-1311-3096-S2, 5mg/L PFOS,1:1 clay, 48h,1/03/01 CMC	159.53				
t010123_037	10x E00-1311-3096ms-S2, 5mg/L PFOS,1:1 clay, 48h,1/03/01 CMC	377.94	200		109.21	
t010123_038	10x E00-1311-3097-S2, 5mg/L PFOS,1:5 clay, 48h,1/03/01 CMC	163.56				
t010123_042	10x E00-1311-3098-S2, 5mg/L PFOS,1:5 clay, 48h,1/03/01 CMC	174.93		4.75		
t010123_043	10x E00-1311-3098ms-S2, 5mg/L PFOS,1:5 clay, 48h,1/03/01 CMC	408.33	200		116.70	
t010123_044	10x E00-1311-3100-S2, 5mg/L PFOS,1:25 clay, 48h,1/03/01 CMC	476.98				
t010123_045	10x E00-1311-3101-S2, 5mg/L PFOS,1:25 clay, 48h,1/03/01 CMC	520.09		4.33		
t010123_046	10x E00-1311-3102-S2, 5mg/L PFOS,1:25 clay, 48h,1/03/01 CMC	501.18				
t010123_050	10x E00-1311-3102ms-S2, 5mg/L PFOS,1:25 clay, 48h,1/03/01 CMC	896.63	200		197.73	
t010123_051	10x E00-1311-3166-S2, 5mg/L PFOS,1:1 Sed, 48h,1/03/01 CMC	83.19				
t010123_052	10x E00-1311-31668-S2, 5mg/L PFOS,1:1 Sed, 48h,1/03/01 CMC	100.14		31.49		-0.651090984
t010123_053	10x E00-1311-3168-S2, 5mg/L PFOS,1:1 Sed, 48h,1/03/01 CMC	51.56				
t010123_054	10x E00-1311-3168ms-S2, 5mg/L PFOS,1:1 Sed, 48h,1/03/01 CMC	242.84	200		95.64	

Analytical Run Information*:

Acceptable Quant Range: 25.0ppb-1000ppb
Calibration Curve r^2:0.997776
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Quality Control Sample Data

Instrument: Tucker
Run ID: t010124

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %
t010124_003	10x E00-1311-3169-S2, 0.5mg/L PFOS,1:5 Sed, 48h 1/03/01 CMC	186.19			
t010124_004	10x E00-1311-3170-S2, 0.5mg/L PFOS,1:5 Sed, 48h 1/03/01 CMC	324.9		30.80	
t010124_005	10x E00-1311-3171-S2, 0.5mg/L PFOS,1:5 Sed, 48h 1/03/01 CMC	210.45			
t010124_006	10x E00-1311-3171ms-S2, 0.5mg/L PFOS,1:5 Sed, 48h,1/03/01 CMC	469.73	200		129.64
t010124_007	10x E00-1311-3172-S2, 0.5mg/L PFOS,1:25 Sed, 48h,1/03/01 CMC	265.72			
t010124_011	10x E00-1311-3173-S2, 0.5mg/L PFOS,1:25 Sed, 48h,1/03/01 CMC	282.72		3.88	
t010124_012	10x E00-1311-3174-S2, 0.5mg/L PFOS,1:25 Sed, 48h,1/03/01 CMC	285.76			
t010124_013	10x E00-1311-3174ms-S2, 0.5mg/L PFOS,1:25 Sed, 48h,1/03/01 CMC	407.27	200		60.76
t010124_014	10x E00-1311-3184-S2, 0mg/L PFOS,1:1 Sed, 48h,1/03/01 CMC	<40.0			
t010124_015	10x E00-1311-3185-S2, 0mg/L PFOS,1:1 Sed, 48h,1/03/01 CMC	<40.0		N/A	
t010124_019	10x E00-1311-3186-S2, 0mg/L PFOS,1:1 Sed, 48h,1/03/01 CMC	<40.0			
t010124_020	10x E00-1311-3186ms-S2, 0mg/L PFOS,1:1 Sed, 48h,1/03/01 CMC	161.33	200		80.67
t010124_021	10x E00-1311-3187-S2, 0mg/L PFOS,1:5 Sed, 48h,1/03/01 CMC	<40.0			
t010124_022	10x E00-1311-3188-S2, 0mg/L PFOS,1:5 Sed, 48h,1/03/01 CMC	<40.0		N/A	
t010124_023	10x E00-1311-3189-S2, 0mg/L PFOS,1:5 Sed, 48h,1/03/01 CMC	<40.0			
t010124_027	10x E00-1311-3189ms-S2, 0mg/L PFOS,1:5 Sed, 48h,1/03/01 CMC	186.26	200		93.13
t010124_028	10x E00-1311-3190-S2, 0mg/L PFOS,1:25 Sed, 48h,1/03/01 CMC	<40.0			
t010124_029	10x E00-1311-3191-S2, 0mg/L PFOS,1:25 Sed, 48h,1/03/01 CMC	<40.0		N/A	
t010124_030	10x E00-1311-3192-S2, 0mg/L PFOS,1:25 Sed, 48h,1/03/01 CMC	<40.0			
t010124_031	10x E00-1311-3192ms-S2, 0mg/L PFOS,1:25 Sed, 48h,1/03/01 CMC	188.01	200		94.01

Analytical Run Information*:

Acceptable Quant Range: 40.0ppb-1000ppb
Calibration Curve r^2:0.997388
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Quality Control Sample Data

Instrument: Tucker
Run ID: t010125

Sample Data File	Sample Description	Measured Concentration, ug/L	Theoretical Matrix Spike Concentration, ug/L	Replicate Sample %RSD	Matrix Spike Recovery, %
t010125_040	10x E00-1311-0016	<40.0			
t010125_041	10x E00-1311-0017	<40.0		N/A	
t010125_042	10x E00-1311-0018	<40.0			
t010125_043	10x E00-1311-0019	<40.0			
t010125_044	10x E00-1311-0020	<40.0		N/A	
t010125_048	10x E00-1311-0021	<40.0			
t010125_049	10x E00-1311-0022	<40.0			
t010125_050	10x E00-1311-0023	<40.0		N/A	
t010125_051	10x E00-1311-0024	<40.0			
t010125_052	10x E00-1311-0025	<40.0			
t010125_056	10x E00-1311-0026	<40.0		N/A	
t010125_057	10x E00-1311-0027	<40.0			
t010125_058	10x E00-1311-0028	<40.0			
t010125_059	10x E00-1311-0029	<40.0		N/A	
t010125_060	10x E00-1311-0030	<40.0			
t010125_064	10x E00-1311-0031	615.66			
t010125_065	10x E00-1311-0032	534.11		8.36	
t010125_066	10x E00-1311-0033	623.15			
t010125_067	10x E00-1311-0034	511.02			
t010125_068	10x E00-1311-0035	599.06		8.17	
t010125_072	10x E00-1311-0036	539.37			
t010125_073	10x E00-1311-0037	602.7			
t010125_074	10x E00-1311-0038	543.28		6.56	
t010125_075	10x E00-1311-0039	615.46			
t010125_076	10x E00-1311-0040	566.96			
t010125_080	10x E00-1311-0041	561.3		1.88	
t010125_081	10x E00-1311-0042	582.06			
t010125_082	10x E00-1311-0043	560.81			
t010125_083	10x E00-1311-0044	629.91		7.57	
t010125_084	10x E00-1311-0045	548.47			
t010125_088	10x E00-1311-0046	570.84			
t010125_089	10x E00-1311-0047	614.54		5.70	
t010125_090	10x E00-1311-0048	549.94			
t010125_091	10x E00-1311-0049	635.77			
t010125_092	10x E00-1311-0050	539.81		22.31	
t010125_096	10x E00-1311-0051	402.35			
t010125_097	10x E00-1311-0052	417.47			
t010125_098	10x E00-1311-0053	359.31		7.62	
t010125_099	10x E00-1311-0054	380.97			
t010125_100	10x E00-1311-0055	609.1			
t010125_104	10x E00-1311-0056	603.9		6.55	
t010125_105	10x E00-1311-0057	540.32			
t010125_106	10x E00-1311-0058	680.88			
t010125_107	10x E00-1311-0059	543.97		11.16	
t010125_108	10x E00-1311-0060	617.2			
t010125_112	10x E00-1311-0061	549.02			
t010125_113	10x E00-1311-0062	605.04		7.00	
t010125_114	10x E00-1311-0063	529.29			
t010125_115	10x E00-1311-0064	613.74			
t010125_116	10x E00-1311-0065	535.27		7.47	
t010125_120	10x E00-1311-0066	547.43			
t010125_121	10x E00-1311-0067	326.1			
t010125_122	10x E00-1311-0068	457.52		28.51	
t010125_123	10x E00-1311-0069	586.47			
t010125_124	10x E00-1311-0070	412.39			
t010125_128	10x E00-1311-0071	473.07		9.16	
t010125_129	10x E00-1311-0072	399.6			
t010125_130	10x E00-1311-0073	428.08			
t010125_131	10x E00-1311-0074	471.39		6.39	
t010125_132	10x E00-1311-0075	418.75			

Analytical Run Information*:

Acceptable Quant Range: 40ppb-1000ppb
Calibration Curve r^2:0.998087
Target Analyte: PFOS
Internal Standard: THPFOS
*For more run info. See the Data Review Form included in the Raw Data

Appendix F: Notes to File and Deviation forms

This appendix includes all notes to file and deviation forms generated in this study.

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

In the "Suitable Container" section of this study the spiking concentration differs from the method but is stated correctly in the protocol. In this case the protocol takes precedence over the method.

Recorded By:	Date
Cindy Cardstrom	5/24/01

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

In method ETS-8-159.0 the specified shelf life for the test solutions was different from that recorded in the standard logbook when the solutions were actually made. The shelf life of the solutions in the method were chosen arbitrarily and do not reflect accepted lab practices, namely that solutions have a 6-month shelf life (except in rare cases of highly unstable compounds). The method will be revised to reflect actual practices prior to the start of the next study.

Recorded By:	Date
Cindy Carlson	5/24/01

Record of Deviation

I. Identification

Study / Project No.

PFOS Adsorb/Desorb/ E00-1311

Deviation Type: (Check one) ☒ SOP ☐ Method ☐ Equipment Procedure ☐ Protocol ☐ Other:

Document Number: ETS-8-110.0	Date(s) of occurrence: 11 Dec 00 to12 Mar 01

II. Description:

Required Procedure/process: ETS-8-110.0 section11.1states, "the average of two standard Curves will be plotted by linear regression (y = mx+b), weighted 1/x, not forced through zero"

Actual Procedure/process: Run s001217 was quantified using three curves. In addition, none of the runs in this study were quantified using a linear or a weighted curve. A quadratic, unweighted curve was used instead.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)

No additional action will be needed.

Recorded By: Cindy Cardoza	Date: 5/9/01

IV. Impact on Study / Project

This deviation does not adversely affect the quality of the data.

Authorized By: *(Study Director / Project Lead)* Mark E. Ellefson	Date: 05/08/01

3M Environmental Laboratory

Deviation No. _____
(assigned by Study Director or Project Lead at the end of study or project)

Record of Deviation

I. Identification

Study / Project No.

PFOS Adsorb/Desorb/ E00-1311

Deviation Type: ☒ SOP ☐ Method ☐ Equipment Procedure
(Check one) ☐ Protocol ☐ Other:

Document Number: ETS-8-110.0 | Date(s) of occurrence: 11 Dec 00 to12 Mar 01

II. Description:

Required Procedure/process: ETS-8-110.0 section10.2.1 states, " Matrix spikes are prepared for each sample set and analyzed to determine the matrix effect on the recovery efficiency." Section 10.2.3 states, "analyze the matrix spike and the matrix spike duplicate (if prepared) in the same run as the original sample."

Actual Procedure/process: Matrix spikes were not prepared for some sample sections, therefore, they were not analyzed. These matrix spikes were not required by method ETS-8-159 or ETS-8-160.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)

A protocol amendment was drafted to address this issue.

Recorded By: Cindy Cardson | Date: 5/9/01

IV. Impact on Study / Project

This deviation does not adversely affect the quality of the data. Sufficient matrix spikes Were prepared to gauge the quality of the data.

Authorized By: *(Study Director / Project Lead)* Mark E. Sheffield | Date: 05/08/01

3M Environmental Laboratory

Deviation No. _____
(assigned by Study Director or Project Lead at the end of study or project)

Record of Deviation

I. Identification

Study / Project No.

PFOS Adsorb/Desorb/ E00-1311

Deviation Type: (Check one) ☒ SOP ☐ Method ☐ Equipment Procedure ☐ Protocol ☐ Other:

Document Number: ETS-8-155.0	Date(s) of occurrence: 11 Dec 00 to12 Mar 01

II. Description:

Required Procedure/process: ETS-8-155.0 section10.2.1 states, " Matrix spikes are prepared for each sample set and analyzed to determine the matrix effect on the recovery efficiency." Section 10.2.3 states, "analyze the matrix spike and the matrix spike duplicate (if prepared) in the same run as the original sample."

Actual Procedure/process: Matrix spikes were not prepared for some sample sections, therefore, they were not analyzed. These matrix spikes were not required by method ETS-8-159 or ETS-8-160.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)

ETS-8-155 method has been revised so that matrix spikes may be prepared at the discretion Of the project lead.

Recorded By: Cindy Cardoza	Date: 5/9/01

IV. Impact on Study / Project

This deviation does not adversely affect the quality of the data. Sufficient matrix spikes Were prepared to gauge the quality of the data.

Authorized By: *(Study Director / Project Lead)* Mark E. Gibson	Date: 05/09/01

3M Environmental Laboratory

Deviation No. _____
(assigned by Study Director or Project Lead at the end of study or project)

Record of Deviation

I. Identification

Study / Project No.

PFOS Adsorb/Desorb/ E00-1311

Deviation Type: ☒ SOP ☐ Method ☐ Equipment Procedure
(Check one) ☐ Protocol ☐ Other:

Document Number: ETS-8-155.0 | Date(s) of occurrence: 11 Dec 00 to12 Mar 01

II. Description:

Required Procedure/process: ETS-8-155.0 section11.1states, "the average of two standard Curves will be plotted by linear regression (y = mx+b), weighted 1/x, not forced through zero"

Actual Procedure/process: Run t001215 was quantified using three curves.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)

No additional action will be needed.

Recorded By: Cindy Carlson | Date: 5/9/01

IV. Impact on Study / Project

This deviation does not adversely affect the quality of the data.

Authorized By: *(Study Director / Project Lead)* [signature] | Date: 05/09/01

3M Environmental Laboratory

Deviation No. _____
(assigned by Study Director or Project Lead at the end of study or project)

Record of Deviation

I. Identification

Study / Project No.

PFOS Adsorb/Desorb/ E00-1311

Deviation Type: ☒ SOP ☐ Method ☐ Equipment Procedure
(Check one) ☐ Protocol ☐ Other:

Document Number: ETS-8-155.0 | Date(s) of occurrence: 11 Dec 00 to12 Mar 01

II. Description:

Required Procedure/process: ETS-8-155.0 section11.2states, "If the calibration curve does Not meet acceptance criteria perform routine maintenance or prepare a new standard curve (if necessary) and reanalyze"

Actual Procedure/process: Some analytical runs contained one low curve point that failed acceptance criteria but was intentionally left in the calibration curve. The elimination of this Point would have resulted in successive failures of each next highest point in the curve. These Low points serve to anchor the quadratic curve and are needed to achieve an acceptable Calibration of the instrument.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)

No additional action will be needed.

Recorded By: Cindy Cardon | Date: 5/9/01

IV. Impact on Study / Project

This deviation does not adversely affect the quality of the data.

Authorized By: *(Study Director / Project Lead)* Mark E. Sohl | Date: 5/9/01

3M Environmental Laboratory

Deviation No. _____
(assigned by Study Director or Project Lead at the end of study or project)

Record of Deviation

I. Identification

Study / Project No.

PFOS Adsorb/Desorb/ E00-1311

Deviation Type: ☐ SOP ☒ Method ☐ Equipment Procedure
(Check one) ☐ Protocol ☐ Other:

Document Number: ETS-8-155.0 | Date(s) of occurrence: 11 Dec 00 to12 Mar 01

II. Description:

Required Procedure/process: ETS-8-155.0 section16.4 states, "Print the integration summary, Integration method, and chromatograms…and store in the study folder.

Actual Procedure/process: Each acquisition sequence is set up similarly in that they begin with Solvent blank(s), and one set of standards prior to the samples bracketed by calibration curves. These samples serve to condition the column and warm up the instrument. These samples were Not processed along with the study samples and no chromatograms were printed out. This was Because they do not relate to the study in any way.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)

No additional action will be needed.

Recorded By: Cindy Carlson | Date: 5/17/01

IV. Impact on Study / Project

This deviation does not adversely affect the quality of the data.

Authorized By: *(Study Director / Project Lead)* Mark E. Ellefson | Date: 5/17/01

3M Environmental Laboratory

Deviation No. _____
(assigned by Study Director or Project Lead at the end of study or project)

Record of Deviation

I. Identification

Study / Project No.

PFOS Adsorb/Desorb/ E00-1311

Deviation Type: ☐ SOP ☒ Method ☐ Equipment Procedure
(Check one) ☐ Protocol ☐ Other:

Document Number: ETS-8-155.0	Date(s) of occurrence: 4/4/01, 4/2/01, 4/12/001

II. Description:

Required Procedure/process: ETS-8-155.0 section 14.4 states, "Continuing Calibration Verification (CCV) percent recoveries must be ±30% of the standard concentration"

Actual Procedure/process: In runs R010404, R010402(b), R010405, H010404, and R010412 The 5ng/ml CCV was outside the acceptable calibration range and was outside the ±30% Criteria. Since these points were outside the calibration range they were not accurately Quantifiable, and the 250.5ng/ml points were used as the acceptable CCV's. These points Were used to demonstrate the continued acceptability of the calibration and the 5ng/ml Points were ignored.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)

No action is needed.

Recorded By: Cindy Carlson	Date: 5/17/01

IV. Impact on Study / Project

This deviation does not adversely affect the quality of the data.

Authorized By: *(Study Director / Project Lead)* Mark E. Ellefson	Date: 5/17/01

3M Environmental Laboratory

Deviation No. _____
(assigned by Study Director or Project Lead at the end of study or project)

Record of Deviation

I. Identification

Study / Project No.

PFOS Adsorb/Desorb/ E00-1311

Deviation Type: ☐ SOP ☒ Method ☐ Equipment Procedure
(Check one) ☐ Protocol ☐ Other:

Document Number: ETS-8-155.0 | Date(s) of occurrence: 11 Dec 00 to12 Mar 01

II. Description:

Required Procedure/process: ETS-8-155.0 section 14.2 states, "Solvent and method blanks must be less than one half of the lowest standard used in the calibration curve."

Actual Procedure/process: Run r010329b the area counts of the solvent blanks averaged 56% Of the area count of the lowest standard used in the curve. This amount of contamination is Not expected to have a significant effect on the sample quantitation.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)

No additional action will be needed.

Recorded By: Cindy Carlson | Date: 5/15/01

IV. Impact on Study / Project

This deviation does not adversely affect the quality of the data.

Authorized By: *(Study Director / Project Lead)* Mark E. Ellefson | Date: 5/17/01

3M Environmental Laboratory

Deviation No. _____
(assigned by Study Director or Project Lead at the end of study or project)

Record of Deviation

I. Identification

Study / Project No.

PFOS Adsorb/Desorb/ E00-1311

Deviation Type: ☐ SOP ☒ Method ☐ Equipment Procedure
(Check one) ☐ Protocol ☐ Other:

Document Number: ETS-8-155.0 | Date(s) of occurrence: 11 Dec 00 to12 Mar 01

II. Description:

Required Procedure/process: ETS-8-155.0 section 11.2 states, "If the calibration curve does Not meet acceptance criteria perform routine maintenance or prepare a new standard curve (if necessary) and reanalyze."

Actual Procedure/process: High/low level standards were eliminated from curves to better fit The ranges appropriate to the data. Additionally calibration points that did not meet acceptance Criteria were thrown out of the curve.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)

The SOP will be revised to reflect these changes in the method.

Recorded By: Cindy Cardyse | Date: 5/15/01

IV. Impact on Study / Project

This deviation does not adversely affect the quality of the data.

Authorized By: *(Study Director / Project Lead)* Mark E. Ellefson | Date: 5/17/01

3M Environmental Laboratory

Deviation No. _____
(assigned by Study Director or Project Lead at the end of study or project)

Record of Deviation

I. Identification

Study / Project No.

PFOS Adsorb/Desorb/ E00-1311

Deviation Type: ☐ SOP ☒ Method ☐ Equipment Procedure
(Check one) ☐ Protocol ☐ Other:

Document Number: ETS-8-155.0	Date(s) of occurrence: 11 Dec 00 to12 Mar 01

II. Description:

Required Procedure/process: ETS-8-155.0 section 10.1.2 states, "Analyze a method blank and A matrix blank prior to each calibration curve"

Actual Procedure/process: There were several runs that did not analyze these blanks prior to the Calibration curve. These blanks were run alongside the samples being analyzed instead. Since The matrix and method blanks are to measure the contamination in the sample prep procedures And in the matrix solutions this is not expected to affect the results of the study.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)

No additional action will be needed.

Recorded By:	Date:
Cindy Carlson 5/15/01	5/15/01

IV. Impact on Study / Project

This deviation does not adversely affect the quality of the data.

Authorized By: *(Study Director / Project Lead)*	Date:
Mark E. Ellis	5/17/01

3M Environmental Laboratory

Deviation No. _____
(assigned by Study Director or Project Lead at the end of study or project)

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

Instances where a sample needed a different dilution factor than what was originally made: The analyst went back to the original sample aliquot and started over. The latest date of dilution on each of the spreadsheets corresponds to the dilution factor that was acceptable.

Recorded By:	Date
Cindy Carlson	5/22/01

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

Some of the standards prepared in this study did not record a balance number in the logbook. In all cases this balance ID was #914.

Recorded By:	Date
Cindy Carlson	5/20/07

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

Each acquisition sequence is set up similarly in that they begin with solvent blank(s), 2 high standards, solvent blank(s), and one set of standards prior to the samples bracketed by calibration curves. The purpose of injecting the initial series of blanks and standards in each sequence is solely to ensure the column is sufficiently conditioned, the mass spec. is "warmed up," and the instrument is suitable prior to analysis of samples. Therefore, the appropriate standards are labeled "system suitability" on the data summary sheets. These injections are for qualitative purposes only, and are not to be used to quantify the data or be scrutinized for meeting quality control standards.

Recorded By:	Date
Cindy Carlson	5/9/01

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

Some acquisition sequences in this study were run with two CCV concentrations. This was done so that if the need arose the calibration range could be extremely narrow. In some cases the lowest, 5ng/mL, was outside of the calibration range. This does not mean that the samples are bracketed by failing CCV's, rather that one CCV concentration was outside the calibration range. In these cases the higher concentration CCV was able to demonstrate the continued acceptability of the calibration. The data is in compliance with the method and does not need to be flagged.

Recorded By:	Date
Cindy Carlson	5/15/07

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

Many of the samples analyzed in this study were diluted prior to analysis. The prep sheets note the samples that were diluted with a mechanical diluter. In these cases an appropriate amount of the original study sample was withdrawn from its vessel, and the diluted sample was dispensed into a new pre-labeled vial. This allowed for the retention of an undiluted sample and provided a consistent final sample volume of 1.00 mL. The diluters were calibrated to dispense a final volume of 1.00mL for every dilution level used in this study.

In the case of the Desorption Kinetics samples there was insufficient sample volume to use a mechanical diluter. In this case the dilution was 1:1 accomplished by hand with a syringe, and the final sample volume was 200uL. In the cases of samples that were not diluted the final sample volume was 1.0mL in all cases.

Recorded By:	Date
Cindy Carlson	5/14/01

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

There were a number of steps in the preparation of study samples that were described in the analytical method but not specifically recorded on the prep sheets. The method was followed in all cases, these steps were just not recorded. These implied but unrecorded steps were:

ETS-8-160.1: Section 12.2.12 – "centrifuge until the aqueous layer appears clear"

ETS-8-160.1: Section 12.3.7 – "add an equal amount of fresh $CaCl_2$ solution to the tubes after the withdrawal of the sample aliquots"

ETS-8-160.1: Section 12.4.9.2 – "Centrifuge until the aqueous layer appears clear"

Recorded By:	Date
Cindy Carlson	5/14/01

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

There was no documentation of the pH strips used in this study. In all cases they were the EM Science product called "colorpHast", pH 5-10, Lot number 60179026.

Recorded By:	Date
Cindy Carlson	5/14/01

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

There was no documentation of the specific centrifuge listed in the prep sheets for this study. The centrifuge in all cases was #415835, which was located in the prep lab.

Recorded By:	Date
Cindy Carlson	5/14/07

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

The 00002-104 calibration standards used in this study had a recorded THPFOS concentration of 250ppb, but the actual concentration was 249.31ppb. Since the internal standard THPFOS is used to monitor instrument performance this is not a significant difference. Additionally this small difference in concentration is not independently distinguishable given the resolution capabilities of the instrument. No additional documentation or requantitation is needed.

Recorded By:	Date
Cindy Carlson	5/9/01

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

Two analytical methods were used in the analysis of samples in this study. The LC/MS/MS instrument (Soup) was run according to method ETS-8-110.0 and all others were run according to method ETS-8-155.0.

Recorded By:	Date
Cindy Cardoza	5/9/01

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study:	PFOS Adsorb/Desorb
Associated Study Number:	E00-1311

Please note the following observation regarding significant figures:
As a result of using two different software programs (HP ChemStation and Excel) to acquire, process and report analytical data, data containing three different amounts of significant figures can be found in the data packets. The chromatograms, batch report, and data imported into Excel are each unique. The imported data (i.e. area counts and concentrations) in Excel always has the highest number of significant figures. The electronic data systems carry more significant figures than are displayed. Unfortunately, the different types of software cannot be adjusted to display a consistent number of significant figures. However, by reporting all final concentrations with three significant figures, any differences in numbers of significant figures displayed in any of the raw data printouts is negated.

Recorded By:	Date
Cindy Carlson	5/9/01

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number:	PFOS Adsorb/Desorb E00-1311
Associated Study Number:	

The Q-test is a simple statistical test to determine if a data point that appears to be very different from the rest of the data points in a set may be discarded. Only one data point in a set may be rejected using the Q-test. The test uses the following formula:

$$Q = \frac{|\text{ suspected outlier} - \text{closest value }|}{|\text{ maximum value} - \text{minimum value }|}$$

The value of Q is compared to a critical value, Q_c.

Table of Q Critical values (80% confidence)

N	Q_c
3	.781
4	.560
5	.451
6	.386
7	.344

If Q is larger than Q_c the outlier can be discarded with an 80% confidence.

Recorded By:	Date
Cindy Cardoza	5/9/01

Appendix G: Chromatograms

A representative set of chromatograms from the present study is included in this appendix. The complete set of chromatograms is archived in the 3M Environmental Laboratory database and may be reviewed upon request.

3M Environmental Laboratory

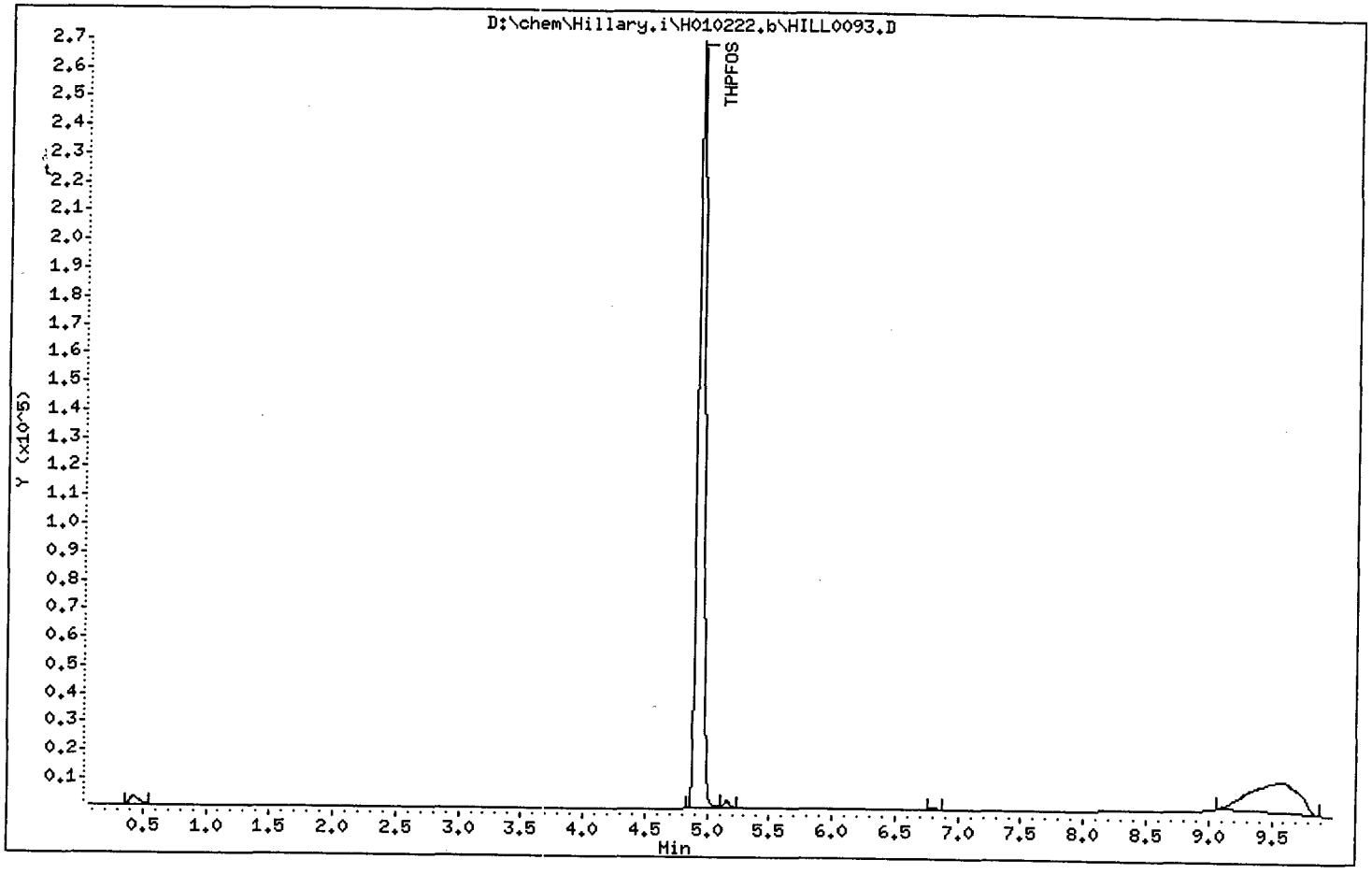
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0093.D
Lab Smp Id:
Inj Date : 23-FEB-2001 10:02
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4031-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 54
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

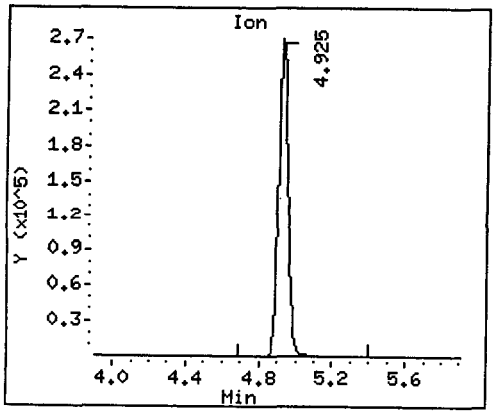
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	4.925	4.902	(1.000)	1015824	249.300	
2 PFOS	499	Compound Not Detected.					

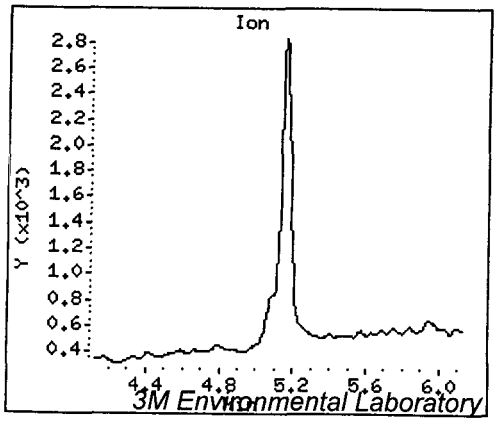
Data File: D:\chem\Hillary.i\H010222.b\HILL0093.D



* 1 THPFOS



2 PFOS (Undetected)



Data File: D:\chem\Hillary.i\H010222.b\HILL0094.D
Report Date: 20-Mar-2001 16:17

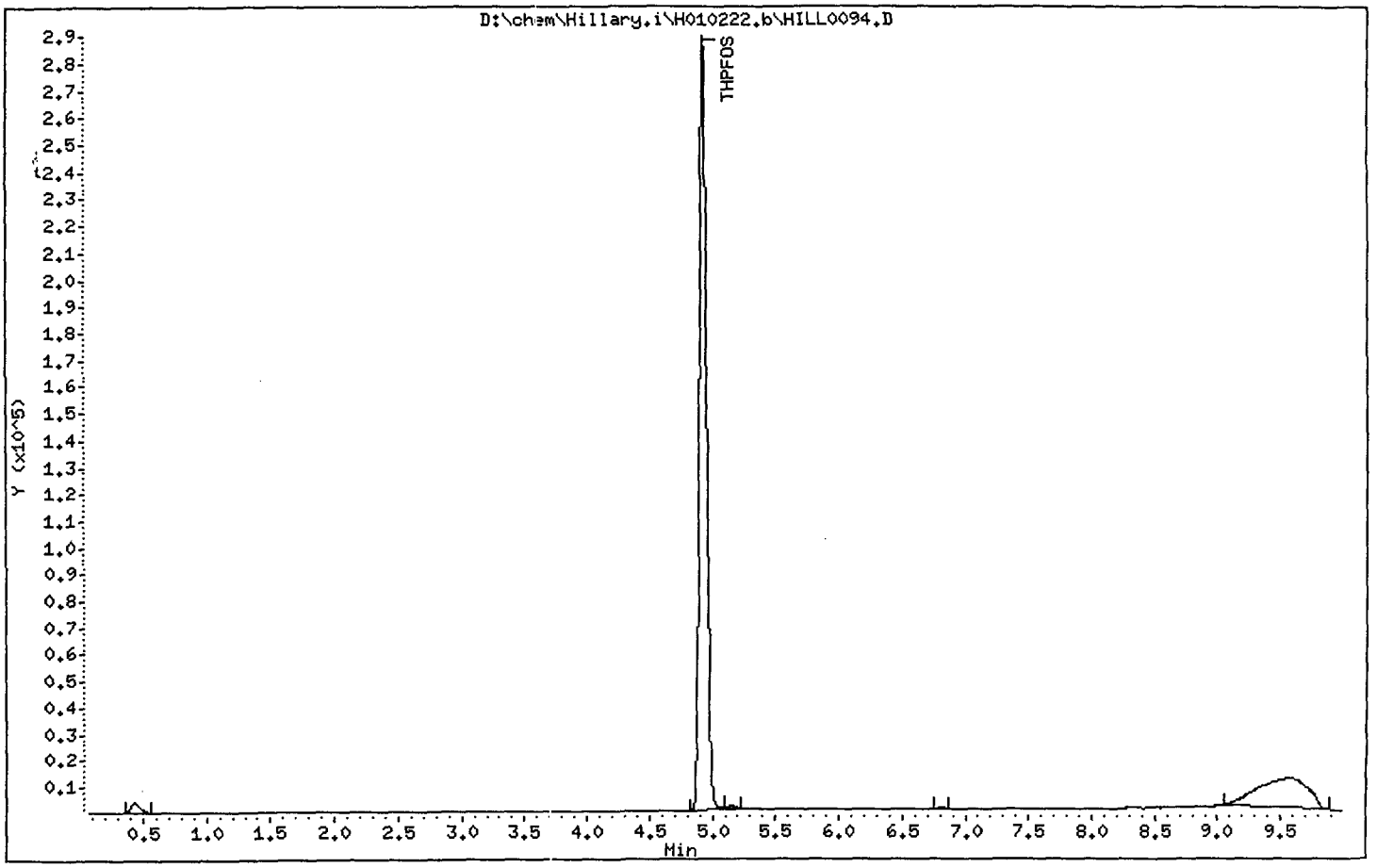
3M Environmental Laboratory

E00-1311 PFOS Adsorb/Desorb

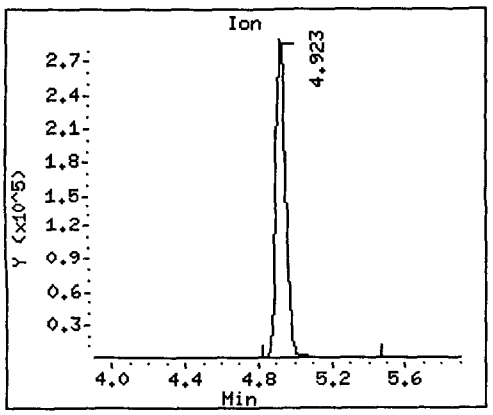
Data file : D:\chem\Hillary.i\H010222.b\HILL0094.D
Lab Smp Id:
Inj Date : 23-FEB-2001 10:13
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4032-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 55
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

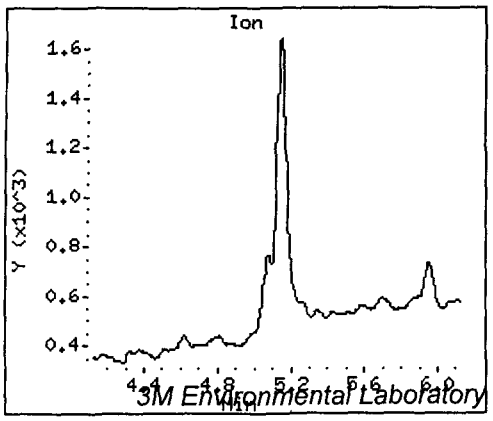
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	4.922	4.902	(1.000)	1079934	249.300	
2 PFOS	499	Compound Not Detected.					



* 1 THPFOS



2 PFOS (Undetected)



Data File: D:\chem\Hillary.i\H010222.b\HILL0095.D
Report Date: 20-Mar-2001 16:17

3M Environmental Laboratory

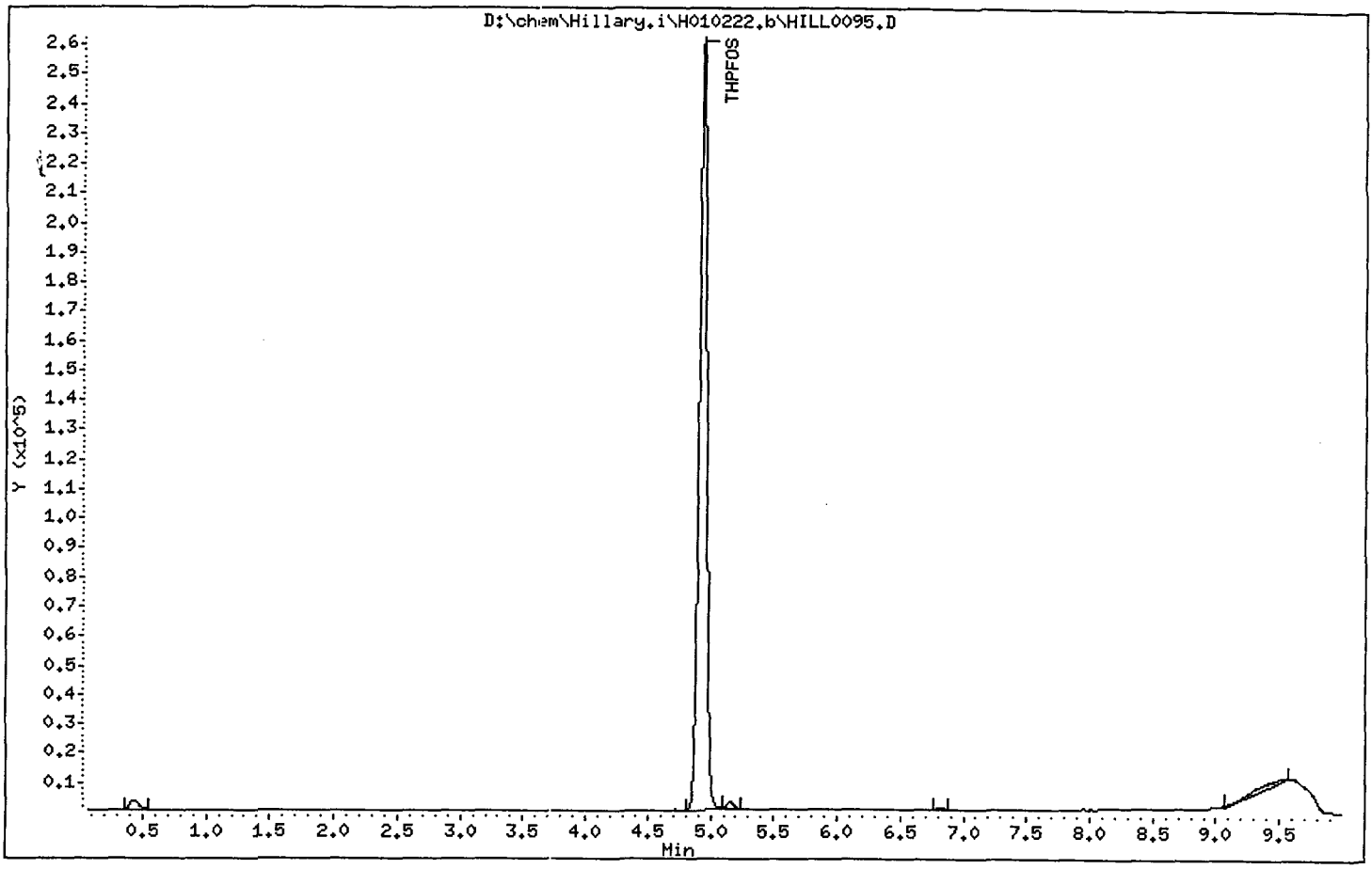
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0095.D
Lab Smp Id:
Inj Date : 23-FEB-2001 10:24
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4033-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 56
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

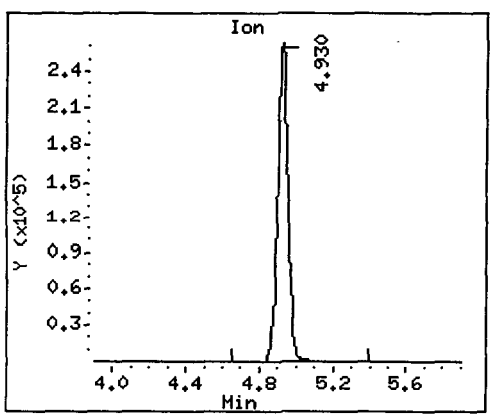
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	4.929	4.902	(1.000)	1055100	249.300	
2 PFOS	499	Compound Not Detected.					

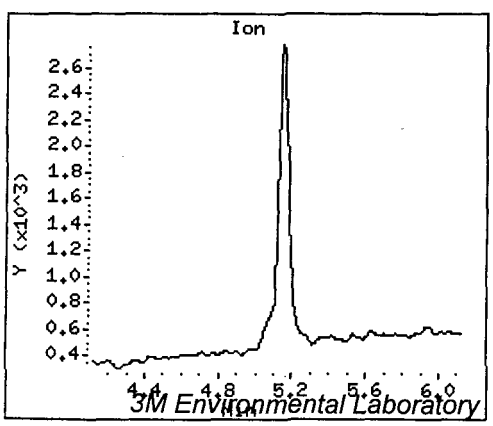
Data File: D:\chem\Hillary.i\H010222.b\HILL0095.D



* 1 THPFOS



2 PFOS (Undetected)



Data File: D:\chem\Hillary.i\H010222.b\HILL0101.D
Report Date: 20-Mar-2001 16:17

3M Environmental Laboratory

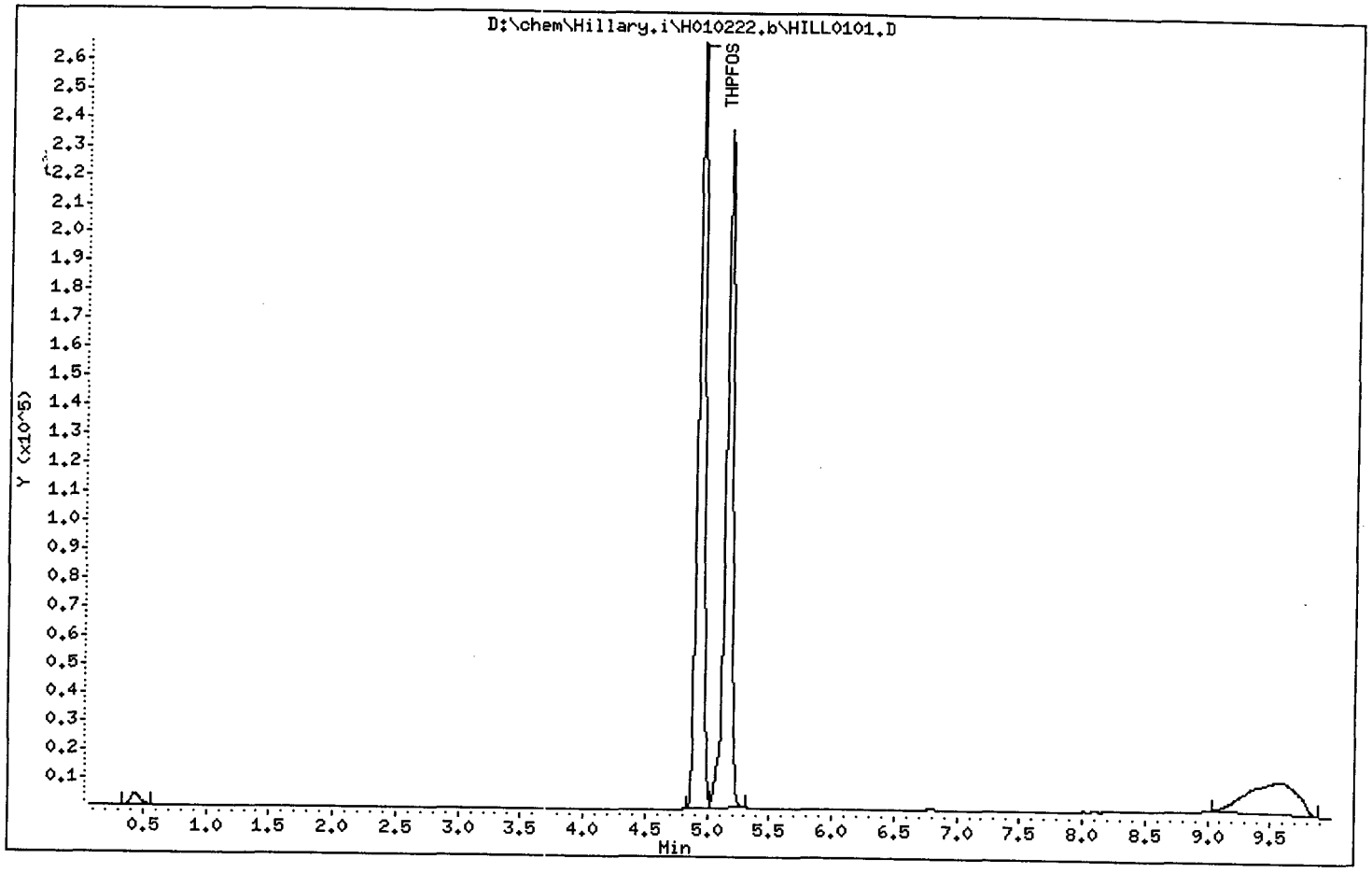
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0101.D
Lab Smp Id:
Inj Date : 23-FEB-2001 11:31
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4037-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 62
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	4.922	4.902	(1.000)	995964	249.300	
2 PFOS	499	5.153	5.126	(1.047)	876072	36.5776	36.6

Data File: D:\chem\Hillary.i\H010222.b\HILL0101.D



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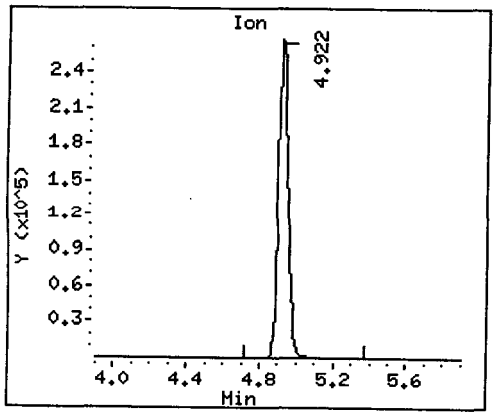
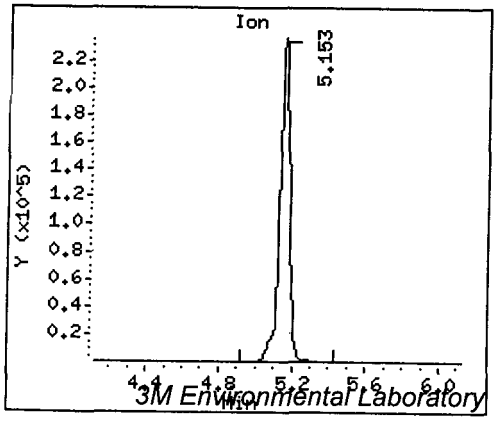


2 PFOS



Data File: D:\chem\Hillary.i\H010222.b\HILL0102.D
Report Date: 20-Mar-2001 16:17

3M Environmental Laboratory

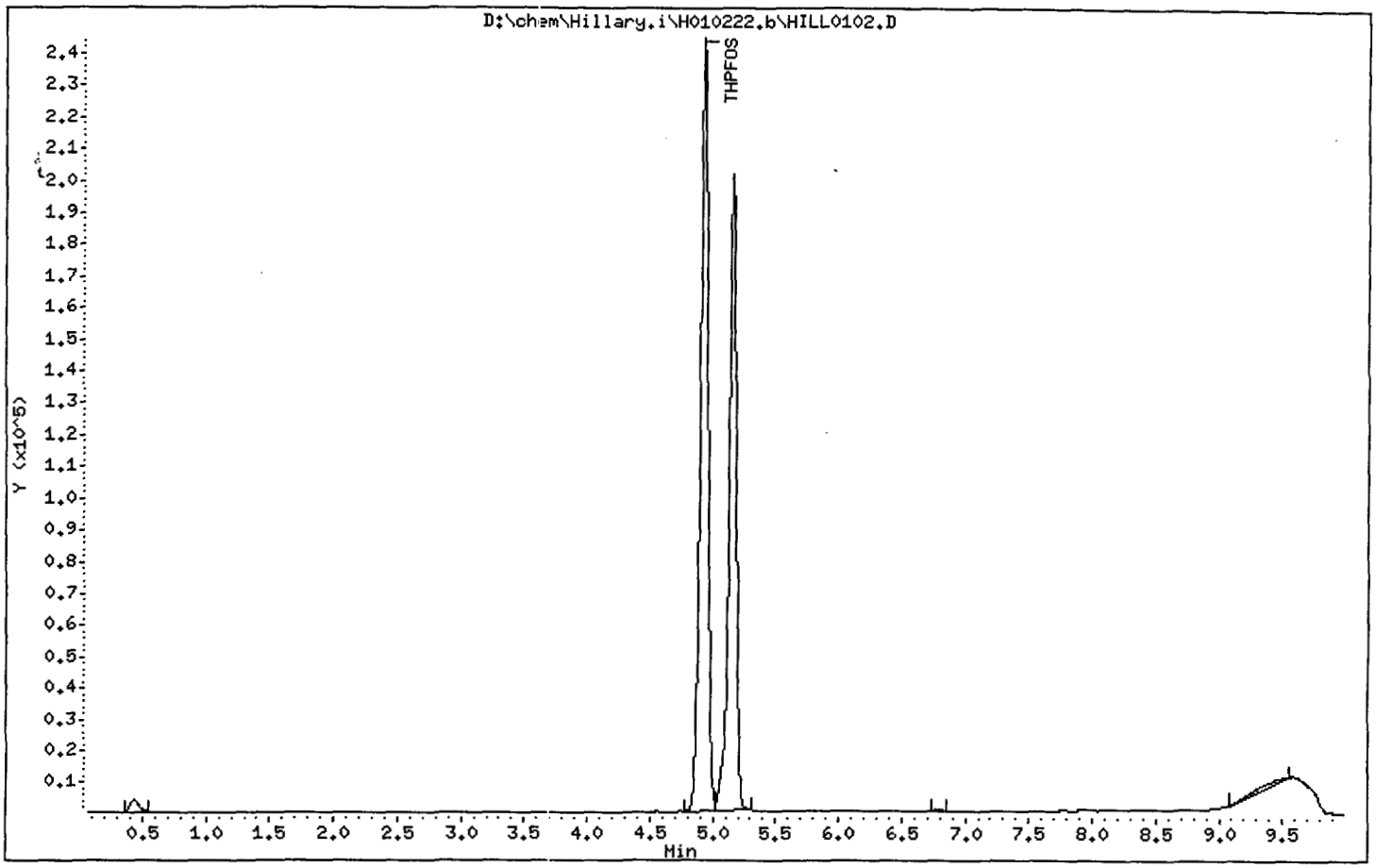
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0102.D
Lab Smp Id:
Inj Date : 23-FEB-2001 11:42
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4038-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 63
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

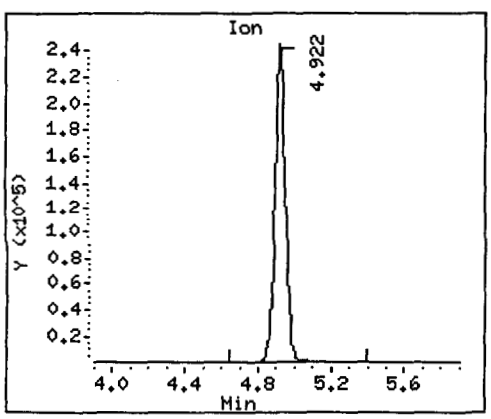
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	4.922	4.902	(1.000)	992751	249.300	
2 PFOS	499	5.153	5.126	(1.047)	788043	33.0166	33.0

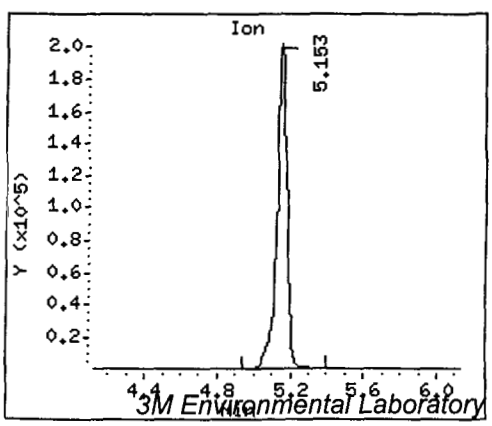
Data File: D:\chem\Hillary.i\H010222.b\HILL0102.D



* 1 THPFOS



2 PFOS



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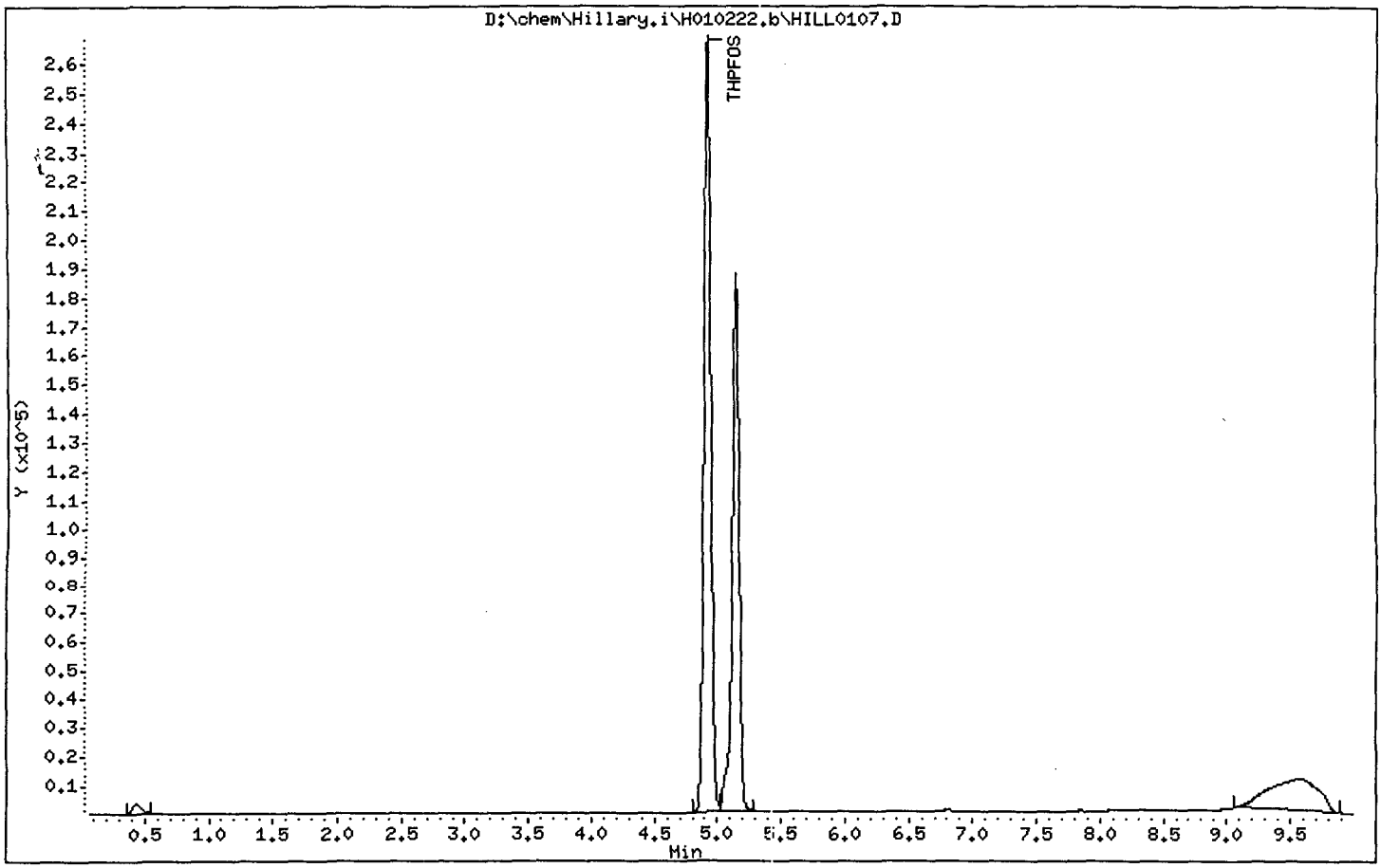
E00-1311 PFOS Adsorb/Desorb

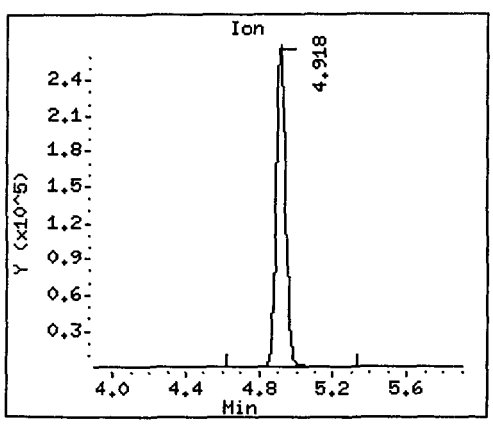
Data file : D:\chem\Hillary.i\H010222.b\HILL0107.D
Lab Smp Id:
Inj Date : 23-FEB-2001 12:38
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4039-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 64
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	4.917	4.902	(1.000)	985052	249.300	
2 PFOS	499	5.141	5.126	(1.046)	683545	28.8722	28.9



* 1 THPFOS



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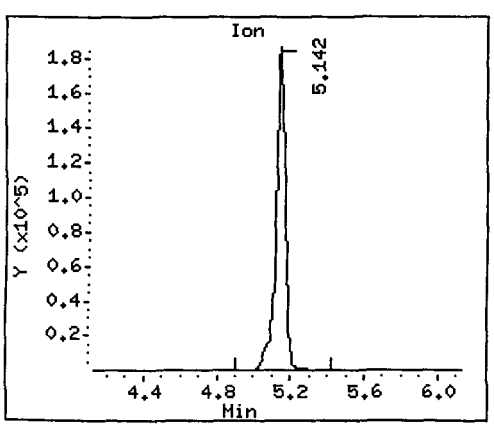

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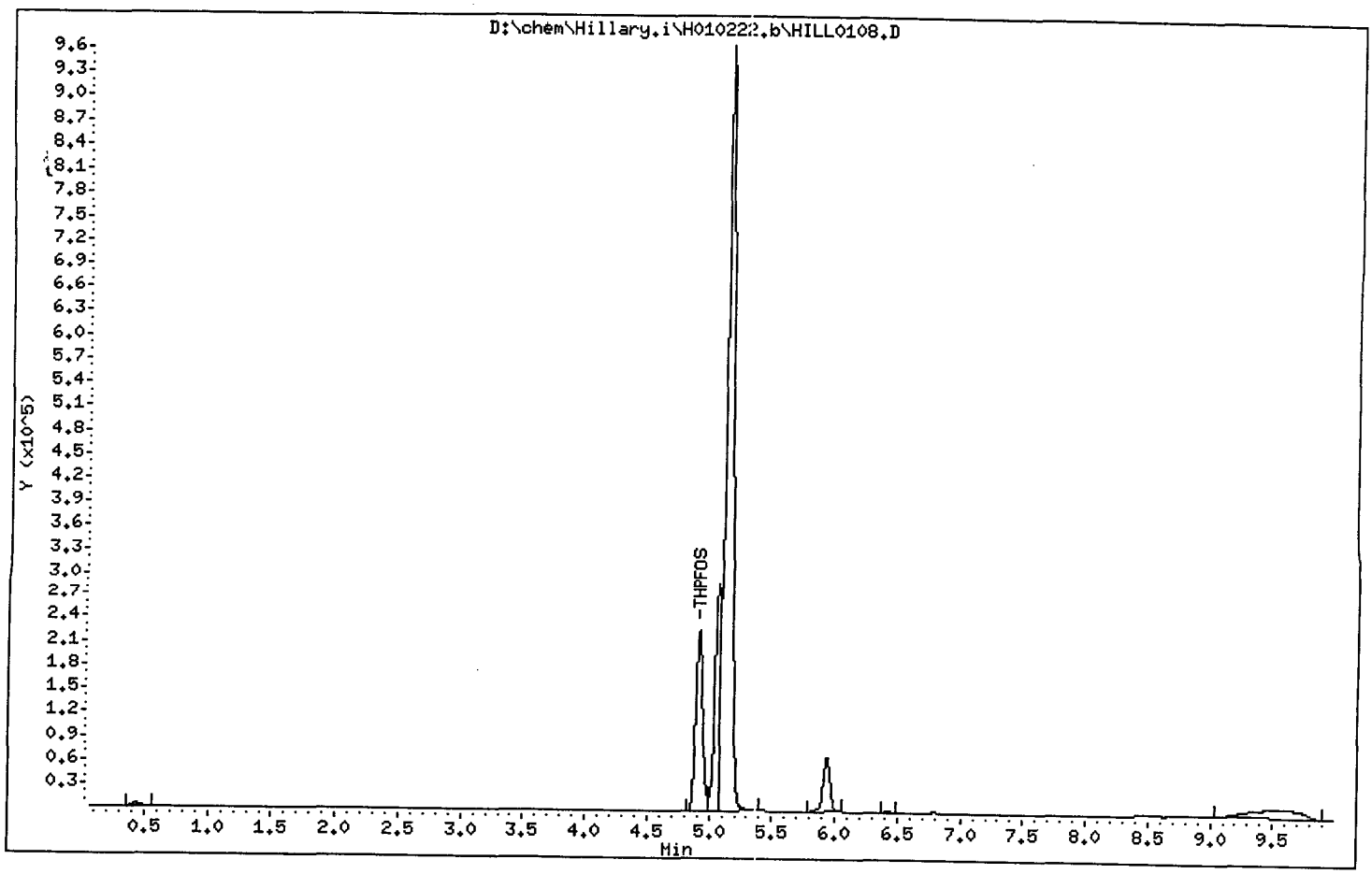
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0108.D
Lab Smp Id:
Inj Date : 23-FEB-2001 12:49
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4039MS-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 65
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	4.914	4.902	(1.000)	844071	249.300	
2 PFOS	499	5.138	5.126	(1.046)	4577937	224.827	225



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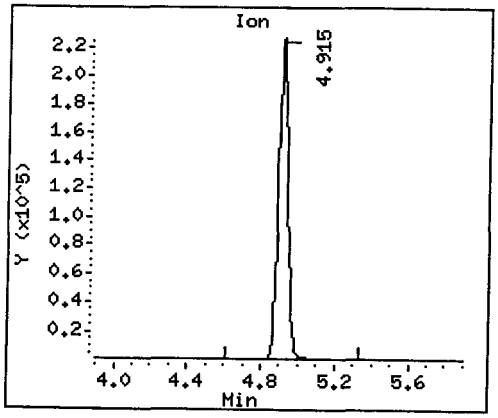

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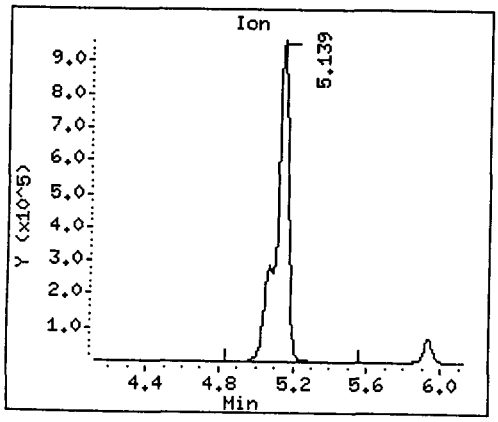

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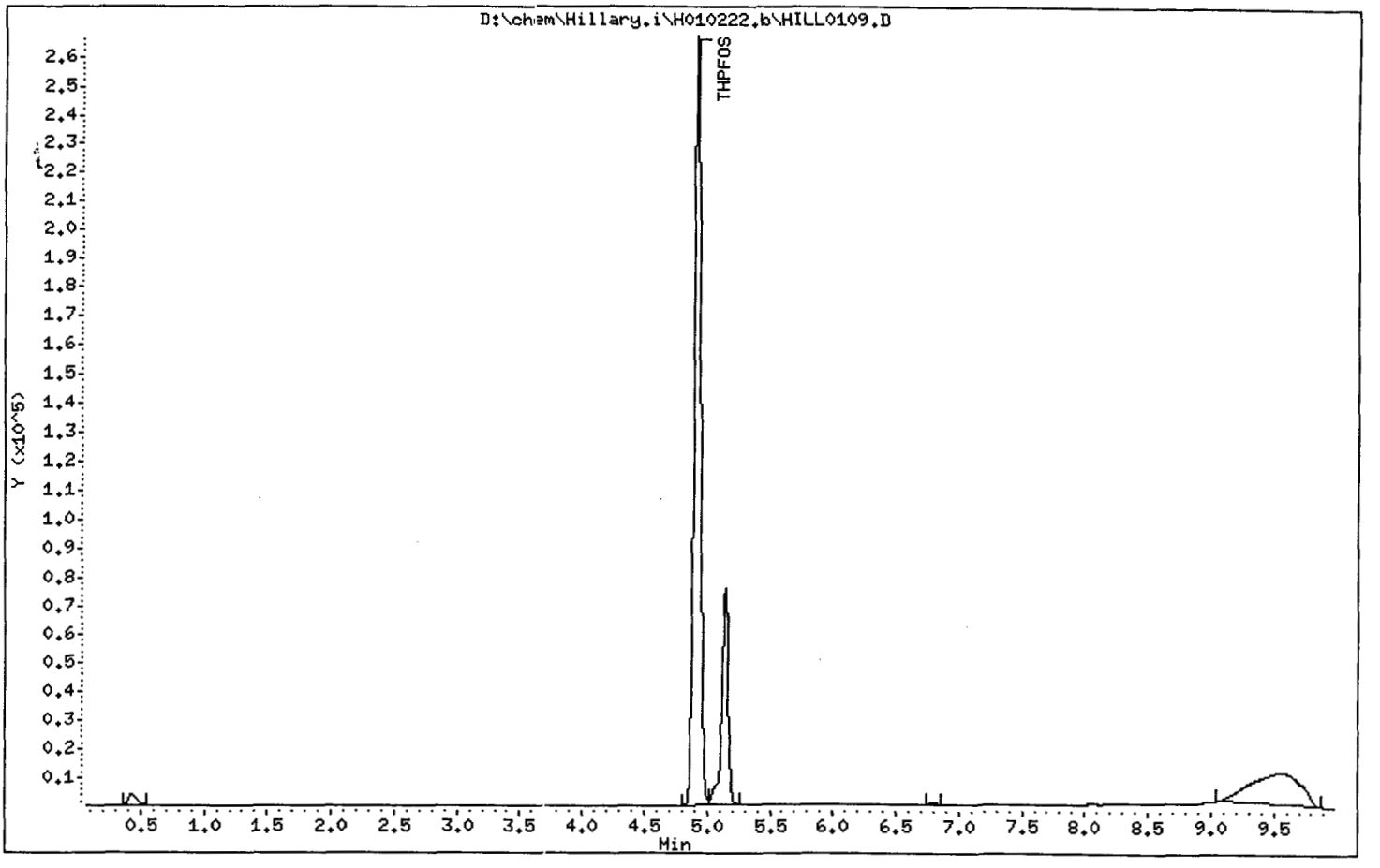
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0109.D
Lab Smp Id:
Inj Date : 23-FEB-2001 13:00
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4040-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 66
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	4.909	4.902	(1.000)	990932	249.300	
2 PFOS	499	5.140	5.126	(1.047)	277725	11.7051	11.7

Data File: D:\chem\Hillary.i\H010222.b\HILL0109.D



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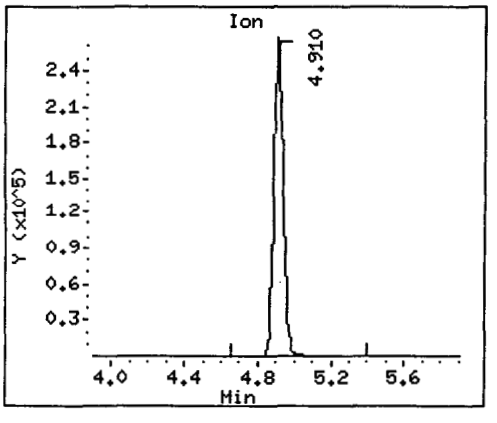

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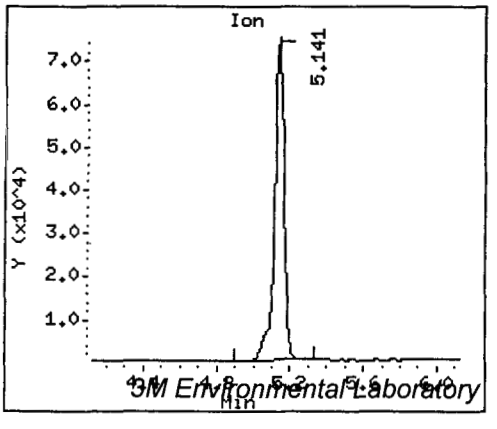

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Report Date: 20-Mar-2001 16:18

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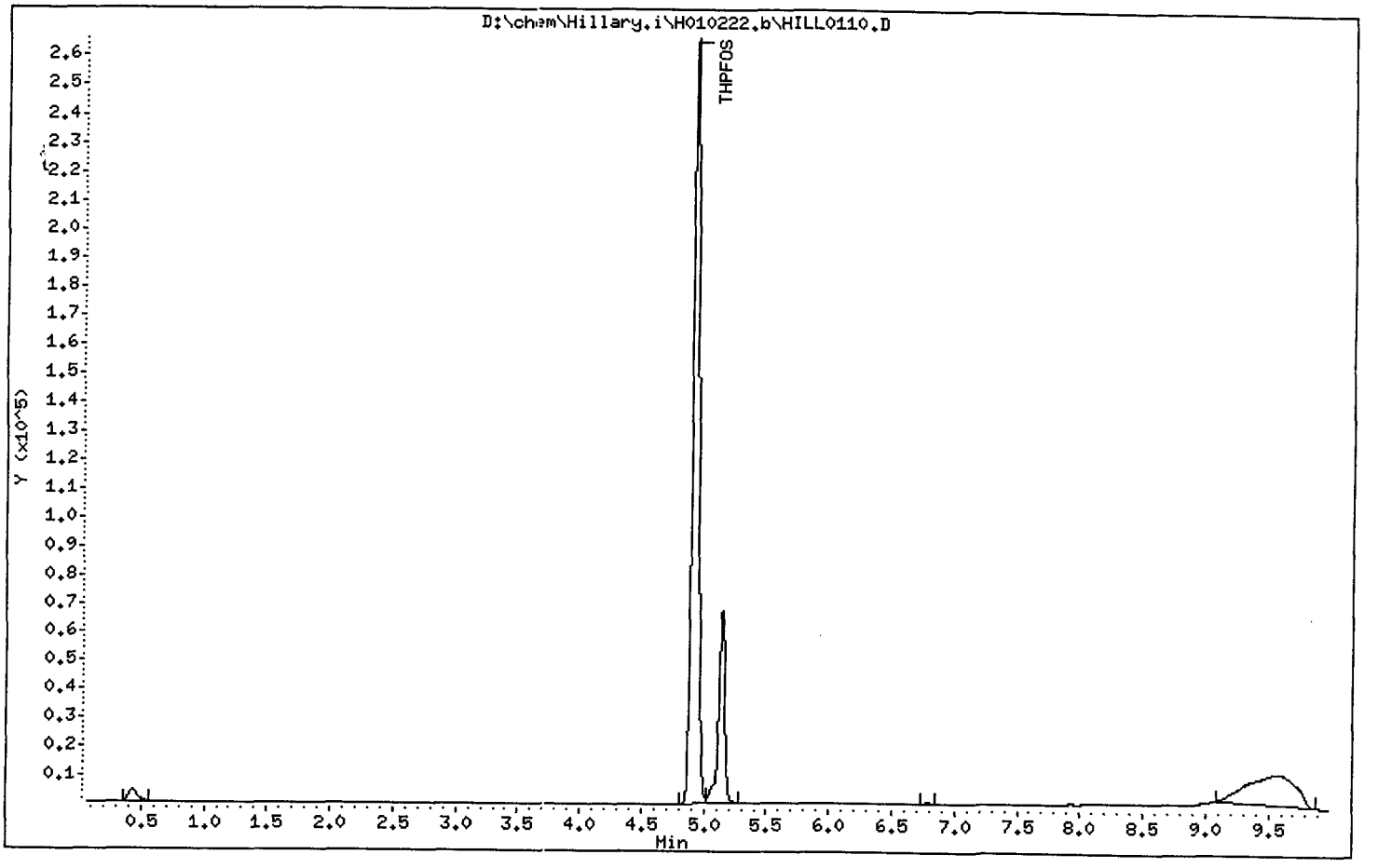
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0110.D
Lab Smp Id:
Inj Date : 23-FEB-2001 13:12
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4041-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 67
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	4.917	4.902	(1.000)	986341	249.300	
2 PFOS	499	5.141	5.126	(1.046)	246166	10.4312	10.4

Data File: D:\chem\Hillary.i\H010222.b\HILL0110.D



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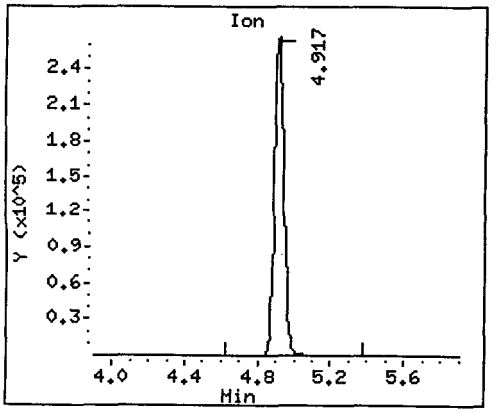

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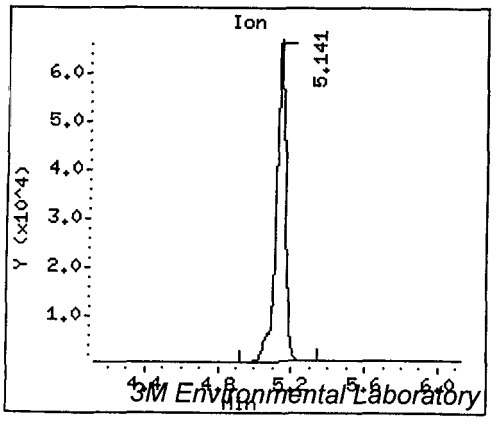

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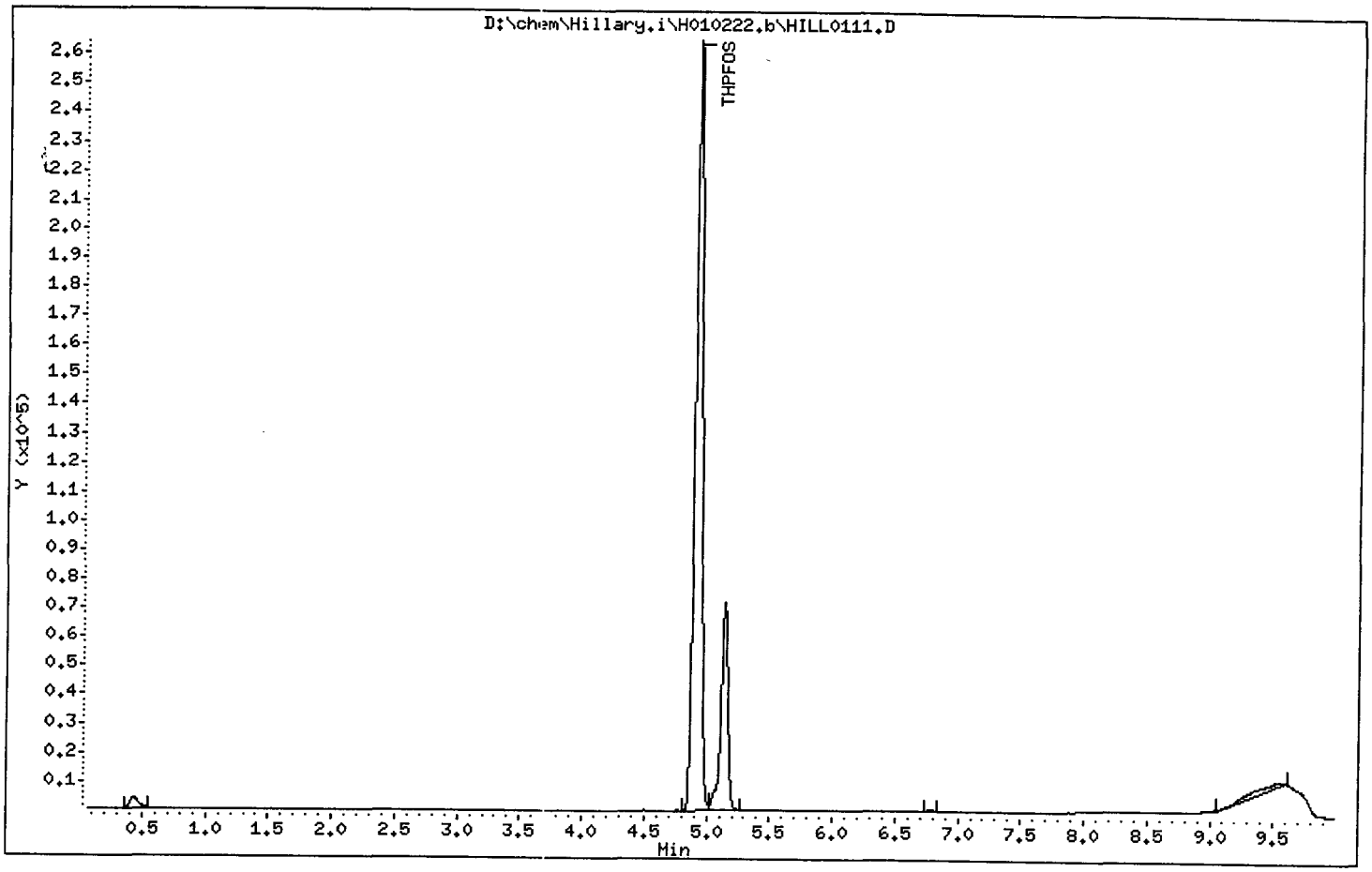
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0111.D
Lab Smp Id:
Inj Date : 23-FEB-2001 13:23
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4042-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 68
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	4.908	4.902	(1.000)	982392	249.300	
2 PFOS	499	5.139	5.126	(1.047)	265448	11.2875	11.3

Data File: D:\chem\Hillary.i\H010222.b\HILL0111.D



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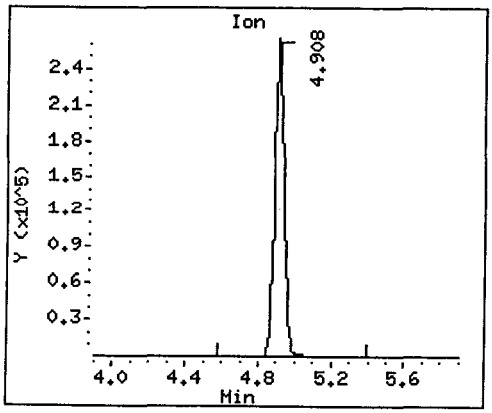

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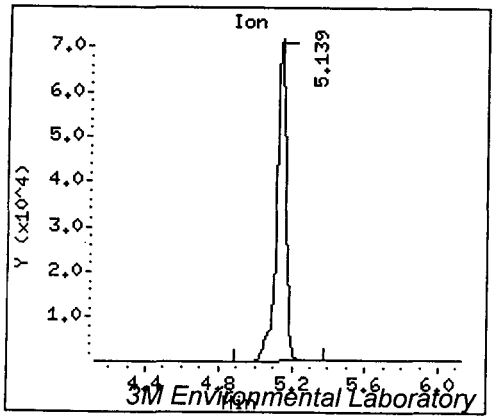

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Report Date: 20-Mar-2001 16:18

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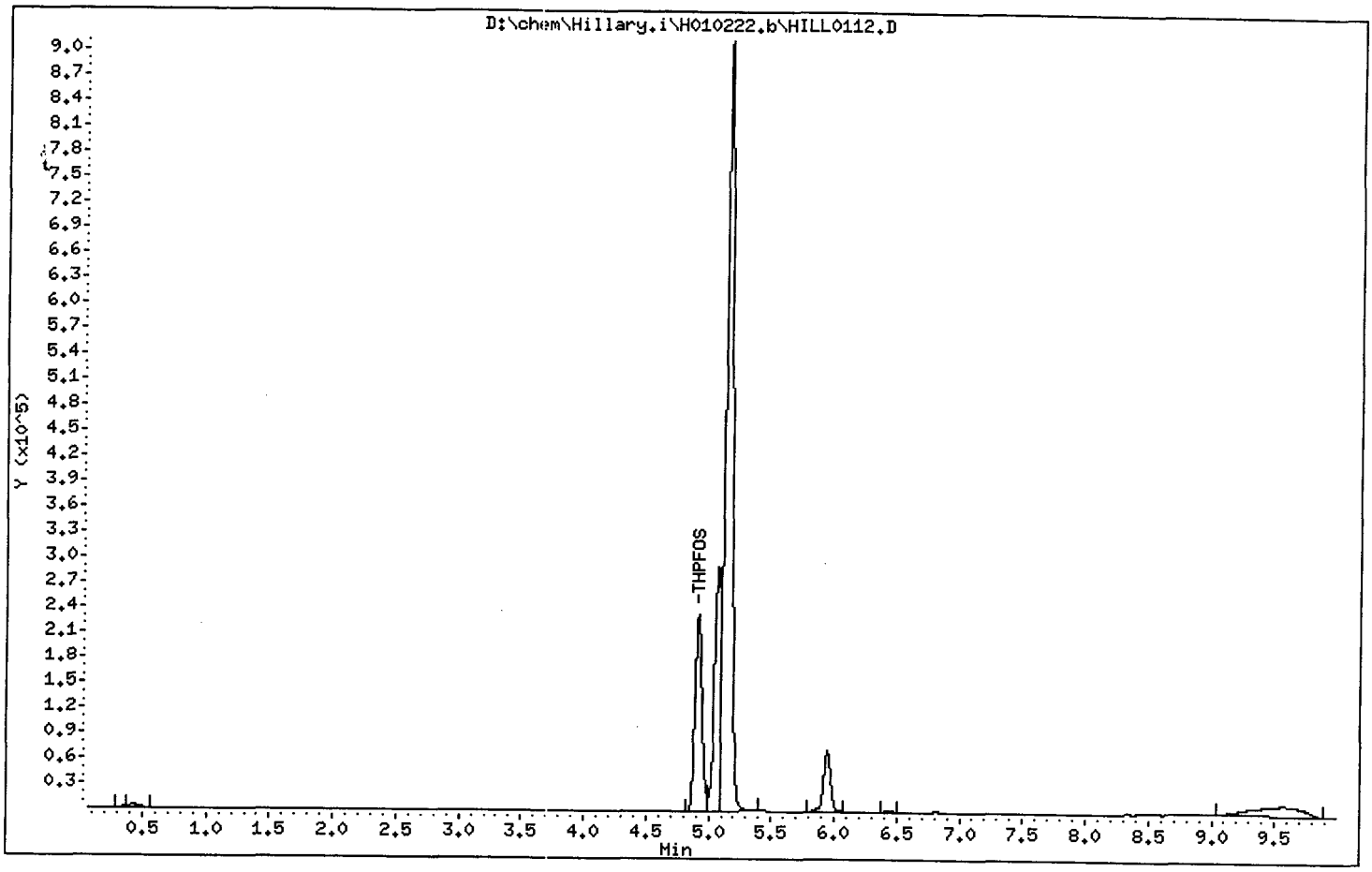
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0112.D
Lab Smp Id:
Inj Date : 23-FEB-2001 13:34
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4042MS-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 69
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

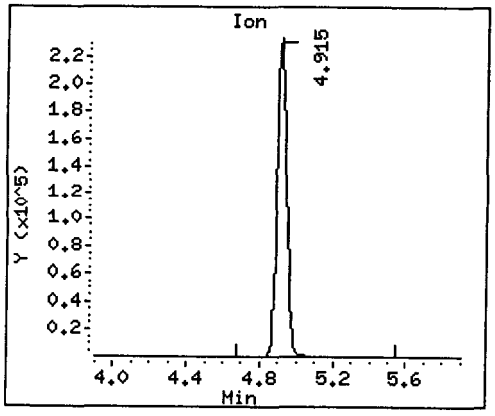
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	4.915	4.902	(1.000)	873132	249.300	
2 PFOS	499	5.146	5.126	(1.047)	4439371	210.793	211

Data File: D:\chem\Hillary.i\H010222.b\HILL0112.D



* 1 THPFOS



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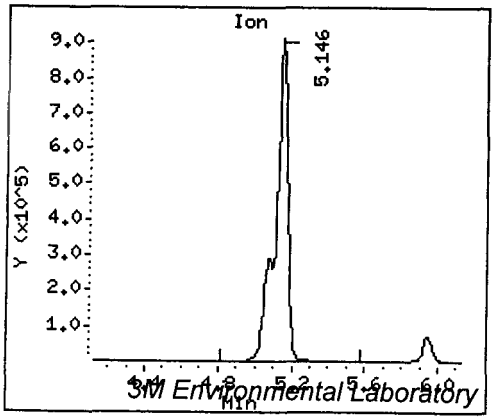

Data File: D:\chem\Hillary.i\H010222.b\HILL0113.D
Report Date: 20-Mar-2001 16:18

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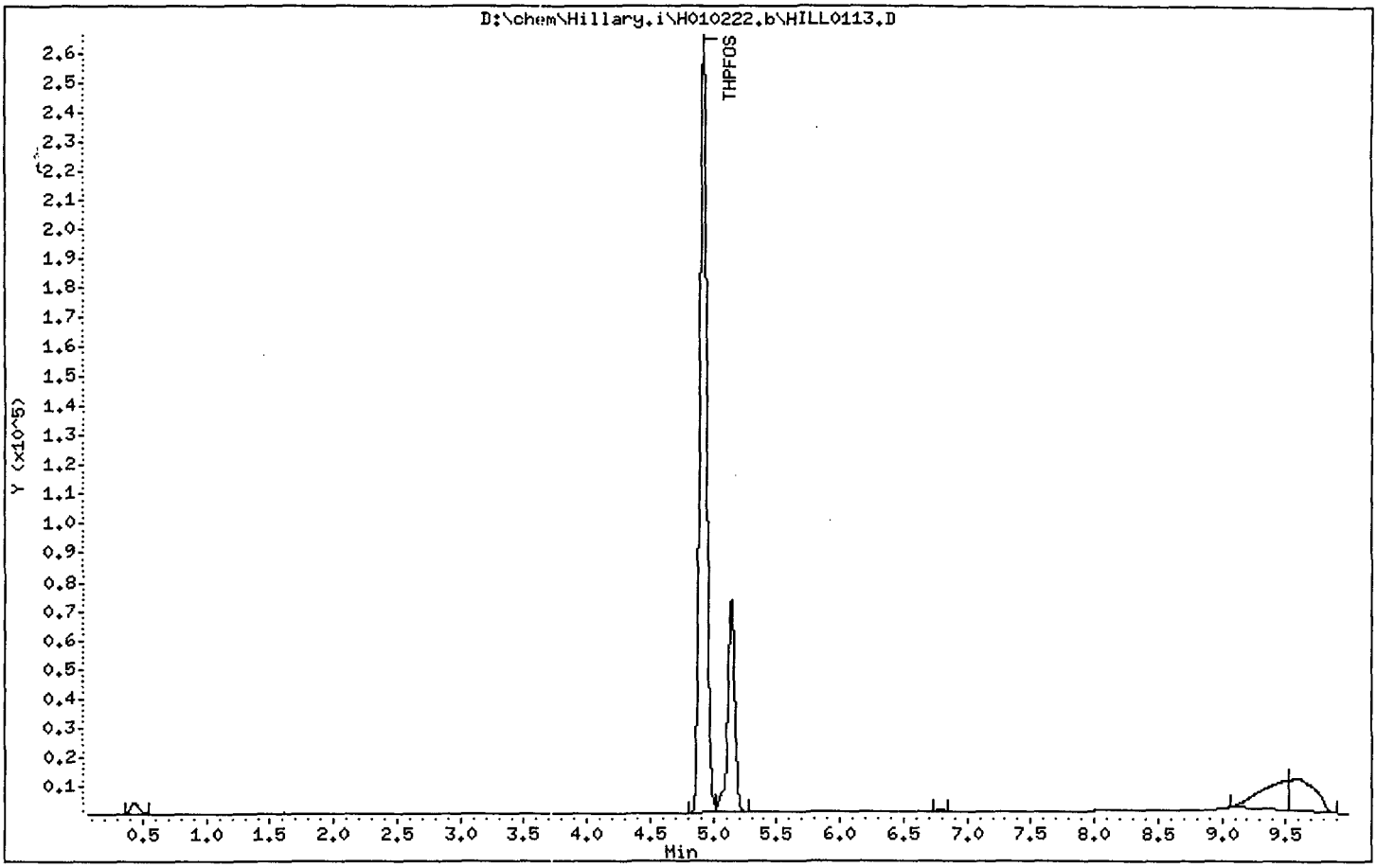
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0113.D
Lab Smp Id:
Inj Date : 23-FEB-2001 13:45
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4043-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 70
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

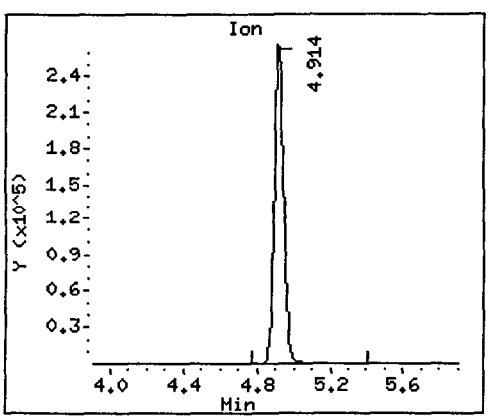
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	4.914	4.902	(1.000)	984852	249.300	
2 PFOS	499	5.145	5.126	(1.047)	269994	11.4511	11.4

Data File: D:\chem\Hillary.i\H010222.b\HILL0113.D



* 1 THPFOS



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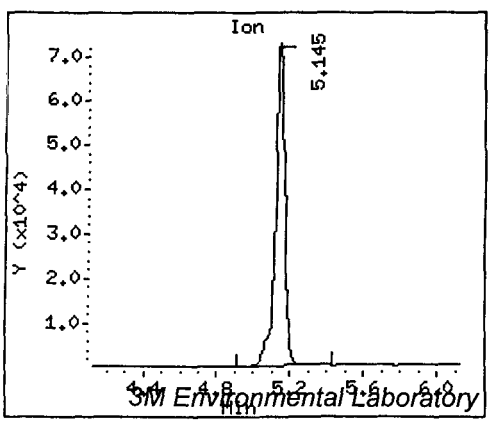

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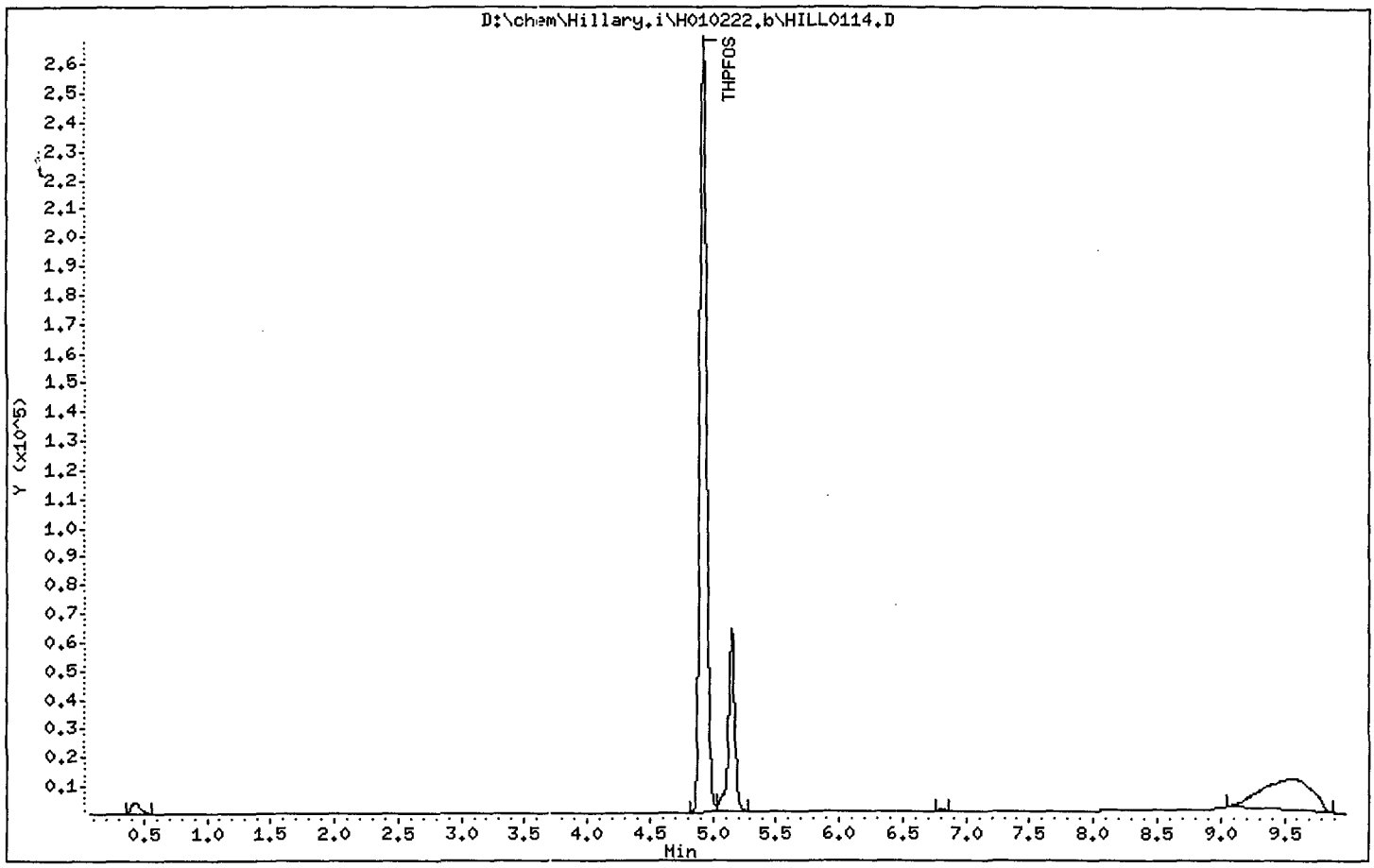
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0114.D
Lab Smp Id:
Inj Date : 23-FEB-2001 13:56
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4044-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 71
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

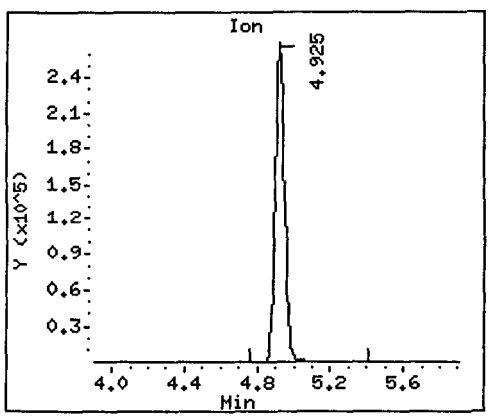
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	4.925	4.902	(1.000)	999207	249.300	
2 PFOS	499	5.149	5.126	(1.046)	236262	9.88635	9.89

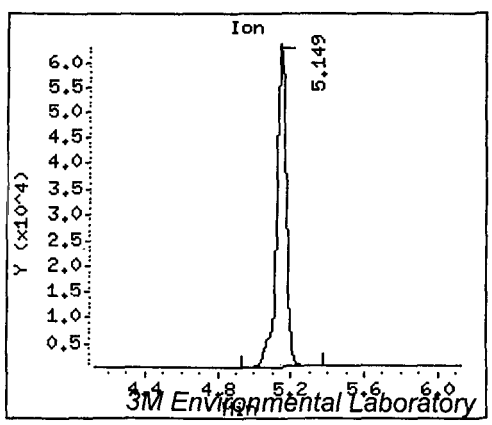
Data File: D:\chem\Hillary.i\H010222.b\HILL0114.D



* 1 THPFOS



2 PFOS



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Report Date: 20-Mar-2001 16:18

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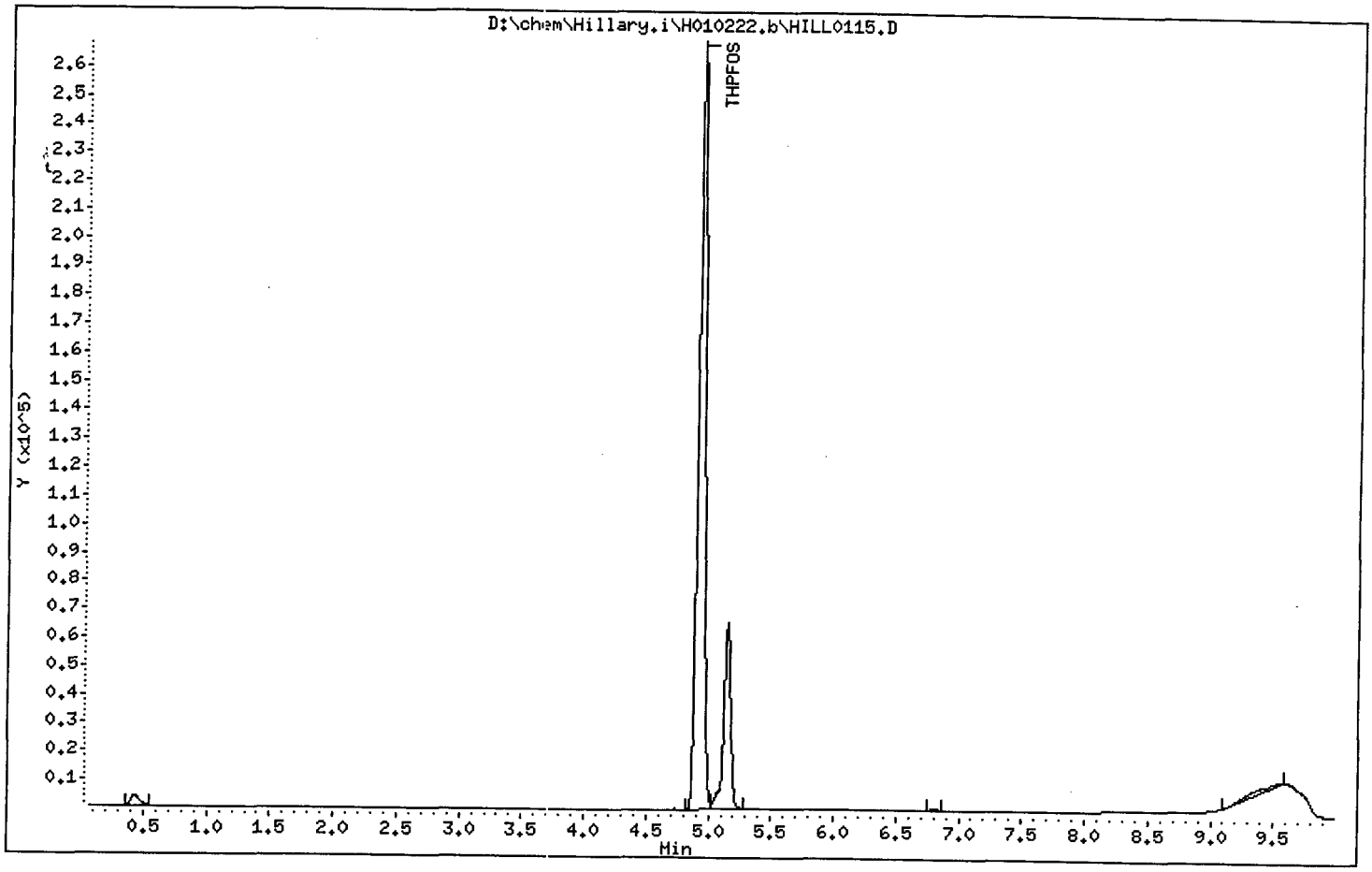
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0115.D
Lab Smp Id:
Inj Date : 23-FEB-2001 14:07
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4045-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 72
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

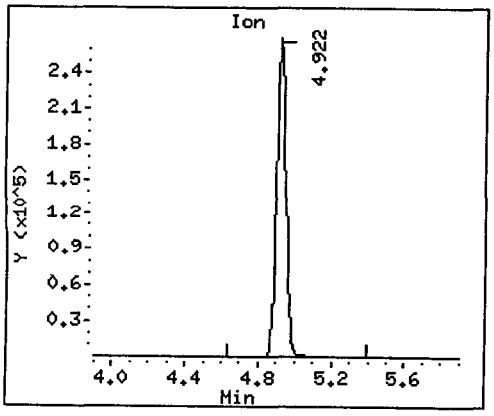
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	4.922	4.902	(1.000)	997394	249.300	
2 PFOS	499	5.146	5.126	(1.046)	242527	10.1649	10.2

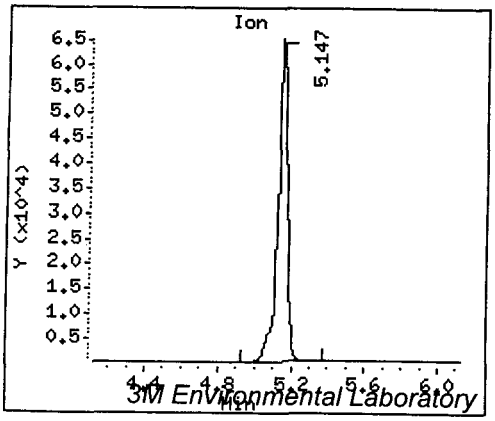
Data File: D:\chem\Hillary.i\H010222.b\HILL0115.D



* 1 THPFOS



2 PFOS



Data File: D:\chem\Hillary.i\H010222.b\HILL0116.D
Report Date: 20-Mar-2001 16:18

3M Environmental Laboratory

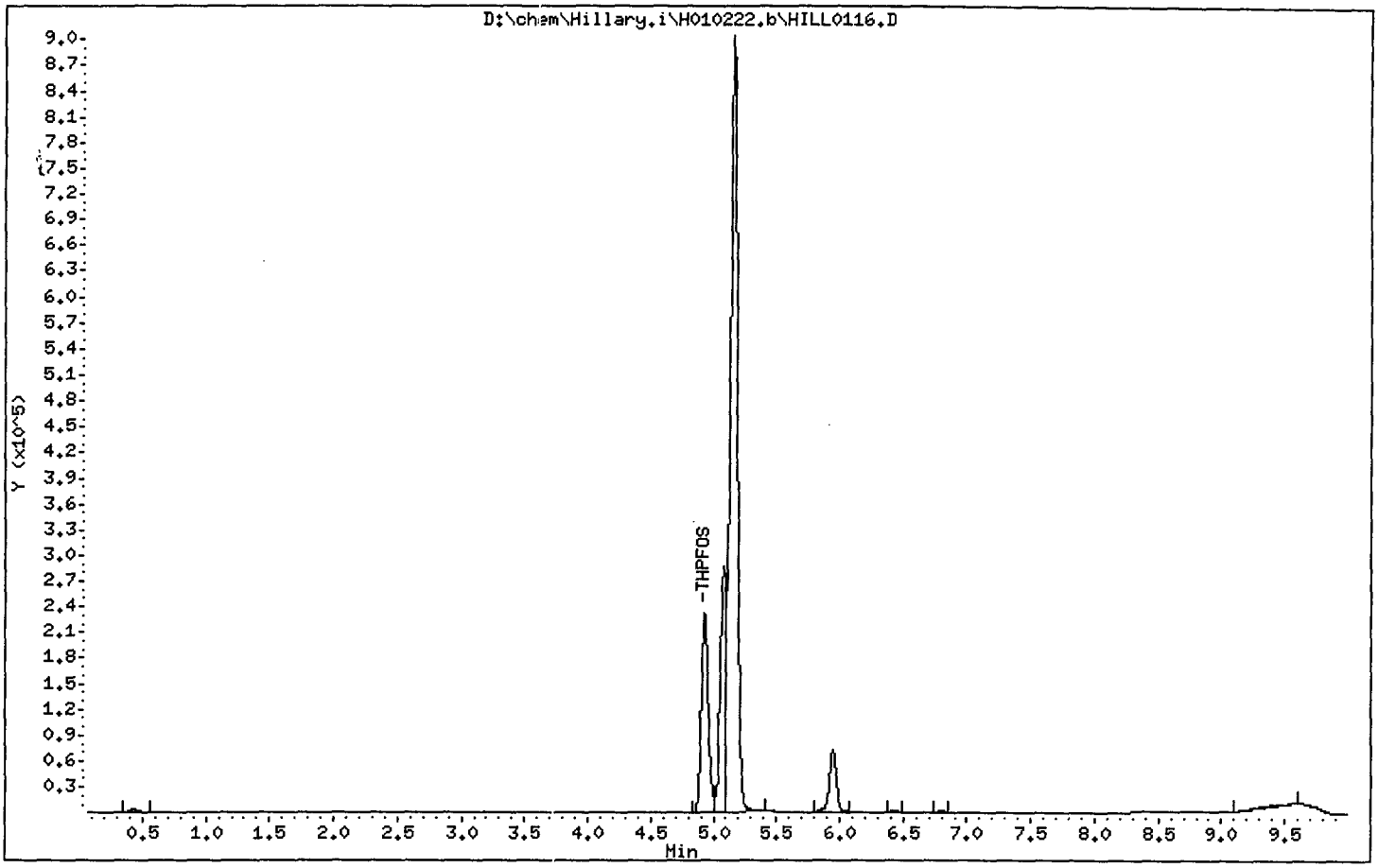
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0116.D
Lab Smp Id:
Inj Date : 23-FEB-2001 14:18
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4045MS-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 73
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

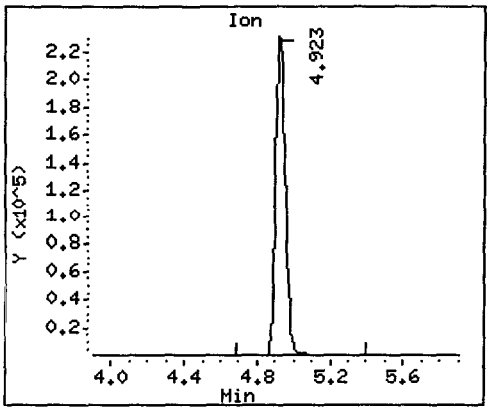
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	4.923	4.902	(1.000)	861434	249.300	
2 PFOS	499	5.154	5.126	(1.047)	4358791	209.780	210

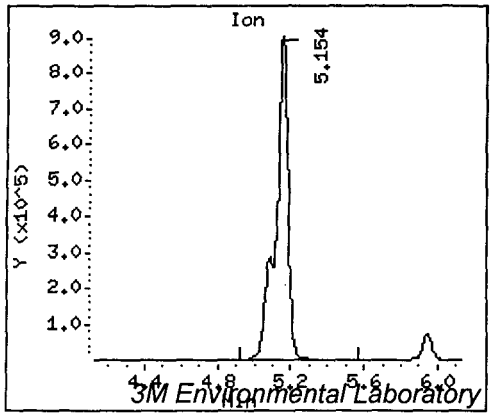
Data File: D:\chem\Hillary.i\H010222.b\HILL0116.D



* 1 THPFOS



2 PFOS



Data File: D:\chem\Hillary.i\H010222.b\HILL0121.D
Report Date: 20-Mar-2001 16:18

3M Environmental Laboratory

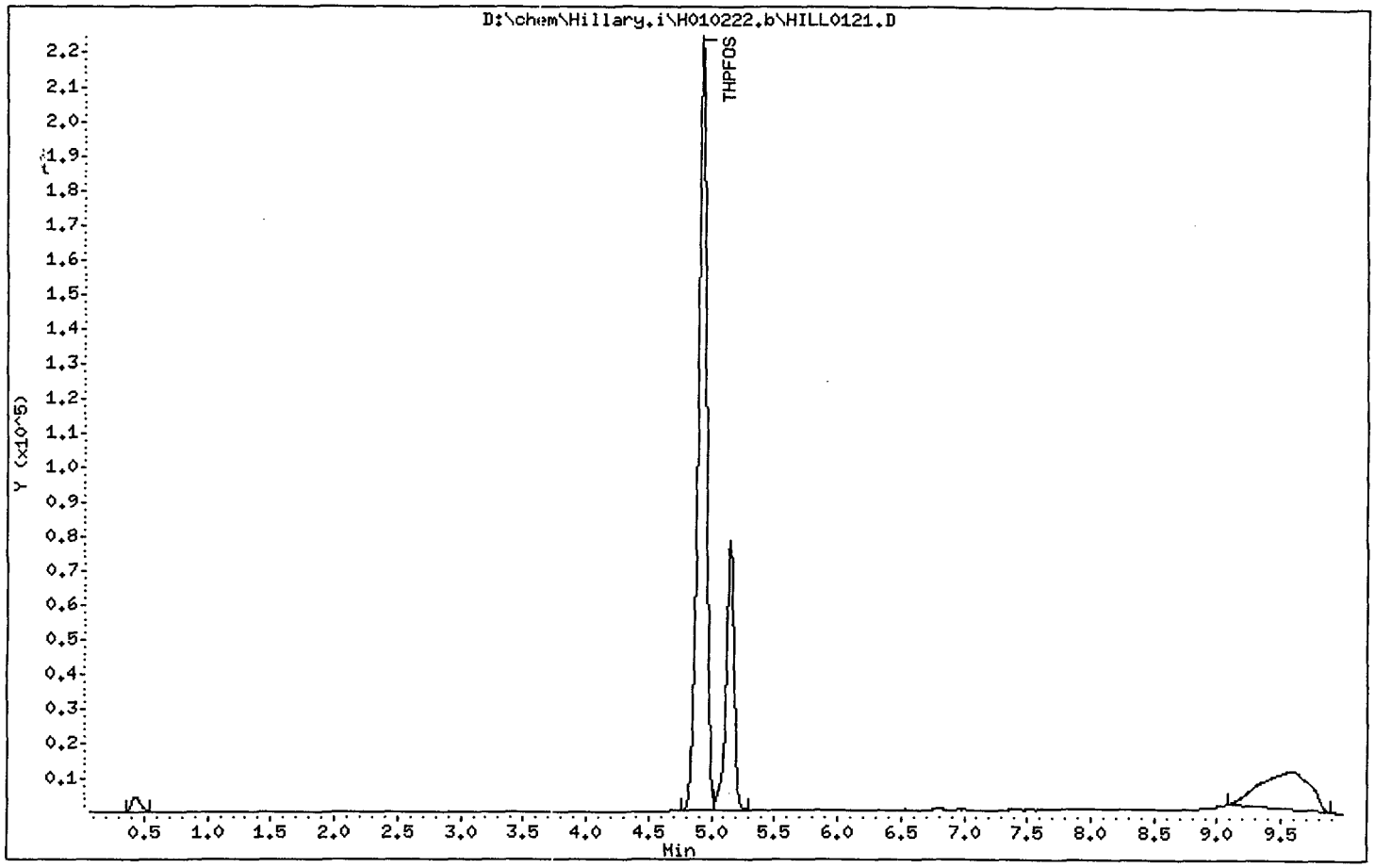
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Hillary.i\H010222.b\HILL0121.D
Lab Smp Id:
Inj Date : 23-FEB-2001 15:14
Operator : KLT Inst ID: hillary.i
Smp Info : 1311-4046-S1
Misc Info :
Comment :
Method : D:\chem\Hillary.i\H010222.b\H010222t.m
Meth Date : 13-Mar-2001 16:01 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:42 Cal File: HILL0032.D
Als bottle: 74
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

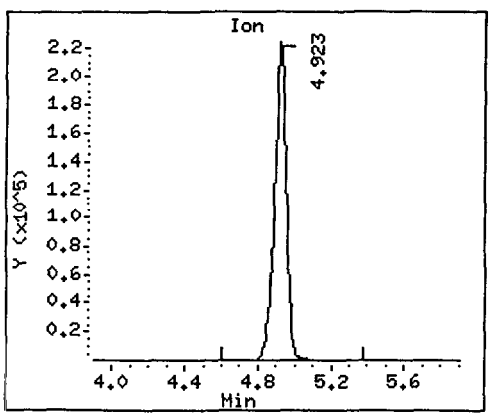
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	4.923	4.902	(1.000)	1017804	249.300	
2 PFOS	499	5.147	5.126	(1.046)	330798	13.5623	13.6

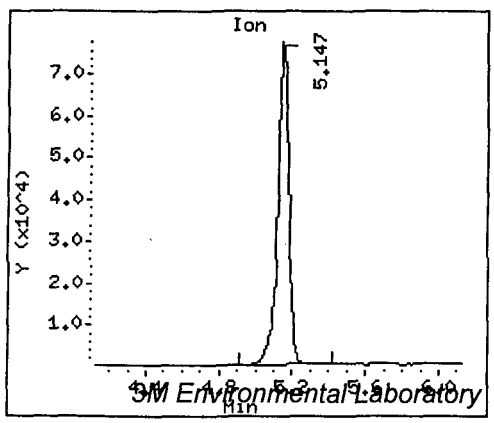
Data File: D:\chem\Hillary.i\H010222.b\HILL0121.D



* 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010222.b\RUSH0053.D
Report Date: 09-Mar-2001 10:01

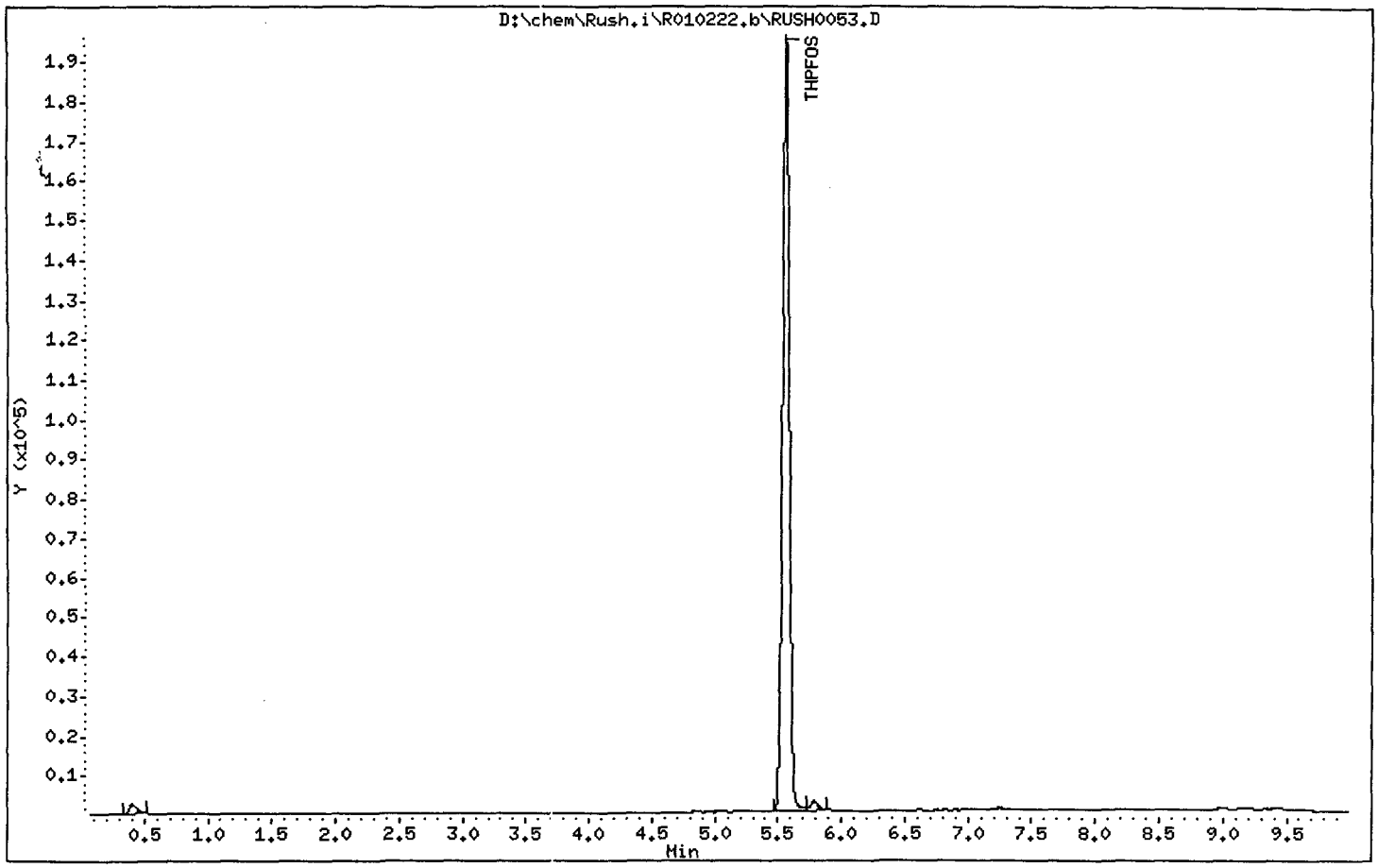
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0053.D
Lab Smp Id:
Inj Date : 23-FEB-2001 02:39
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4061-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

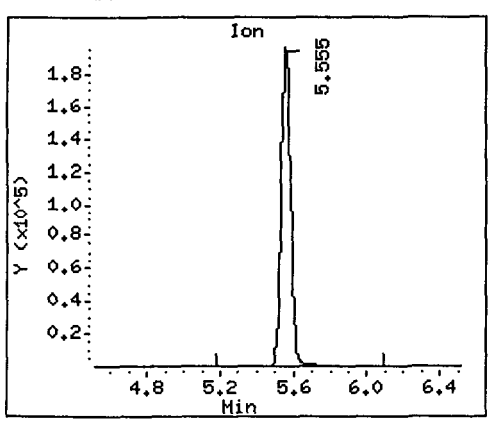
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.555	5.512	(1.000)	713961	249.300	
2 PFOS	499	Compound Not Detected.					

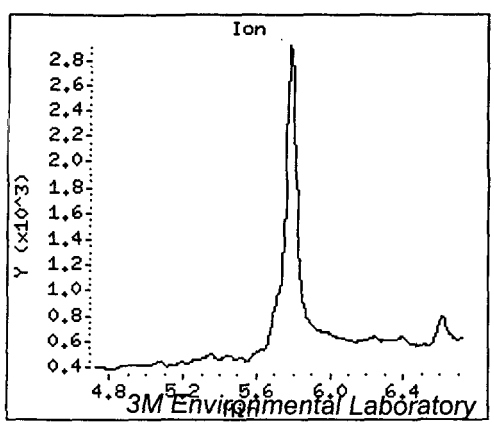
Data File: D:\chem\Rush.i\R010222.b\RUSH0053.D



* 1 THPFOS



2 PFOS (Undetected)



Data File: D:\chem\Rush.i\R010222.b\RUSH0054.D
Report Date: 09-Mar-2001 10:01

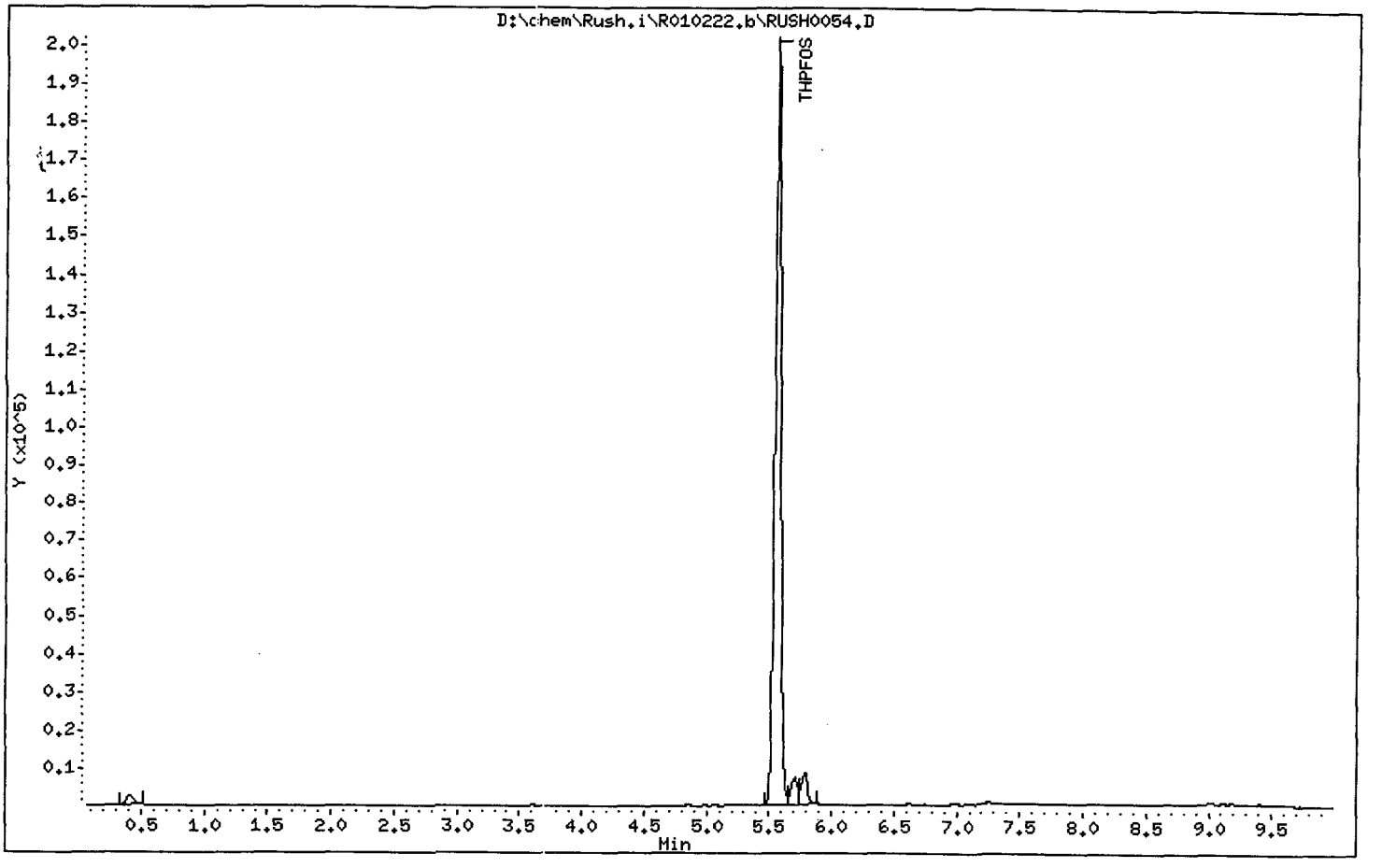
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0054.D
Lab Smp Id:
Inj Date : 23-FEB-2001 02:50
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4062-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

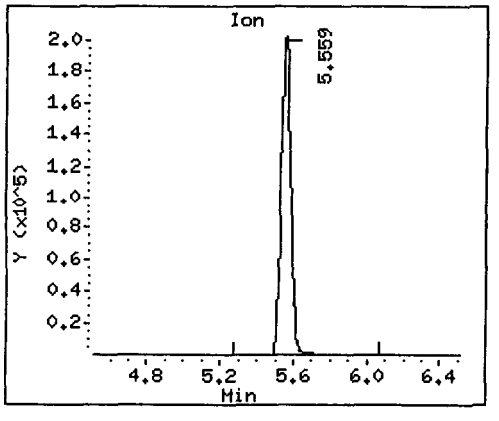
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.559	5.512	(1.000)	722949	249.300	
2 PFOS	499	5.783	5.722	(1.040)	52969	2.96660	2.97

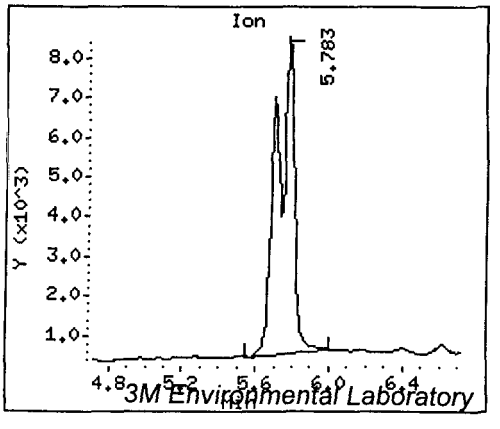
Data File: D:\chem\Rush.i\R010222.b\RUSH0054.D



* 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010222.b\RUSH0055.D
Report Date: 09-Mar-2001 10:01

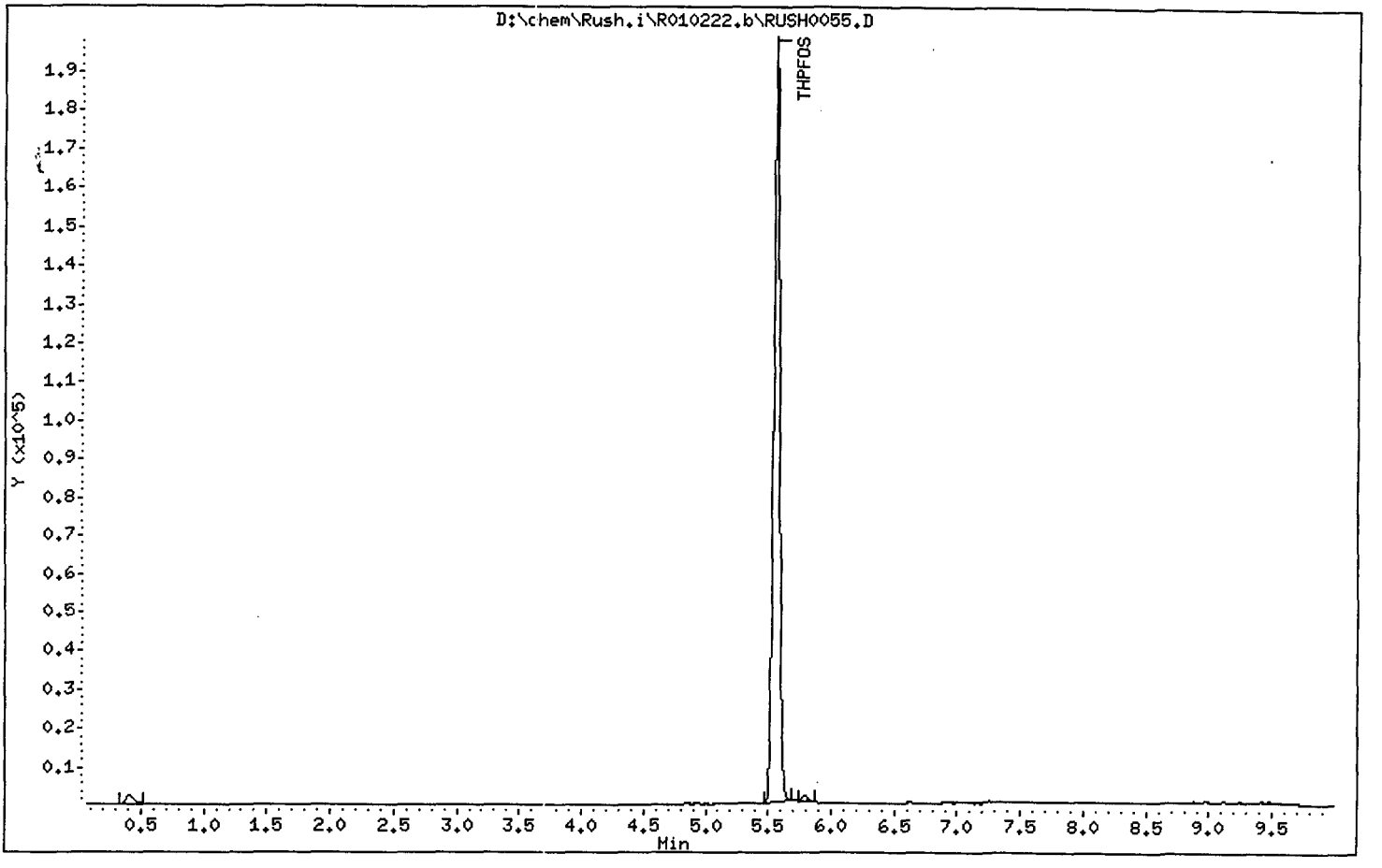
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0055.D
Lab Smp Id:
Inj Date : 23-FEB-2001 03:01
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4063-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

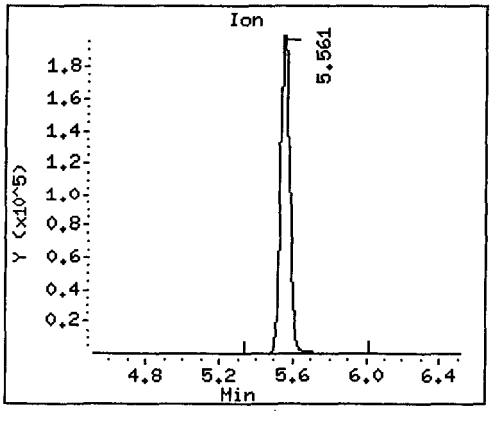
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.560	5.512	(1.000)	717685	249.300	
2 PFOS	499	Compound Not Detected.					

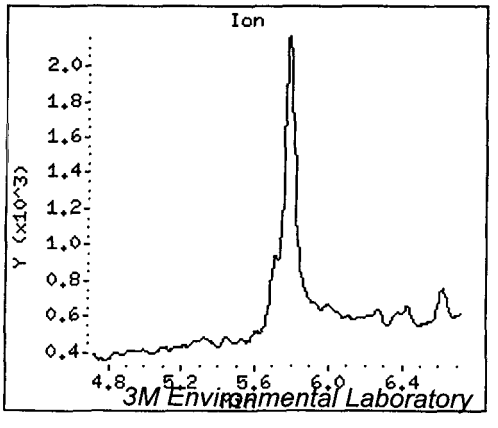
Data File: D:\chem\Rush.i\R010222.b\RUSH0055.D



✖ 1 THPFOS



2 PFOS (Undetected)

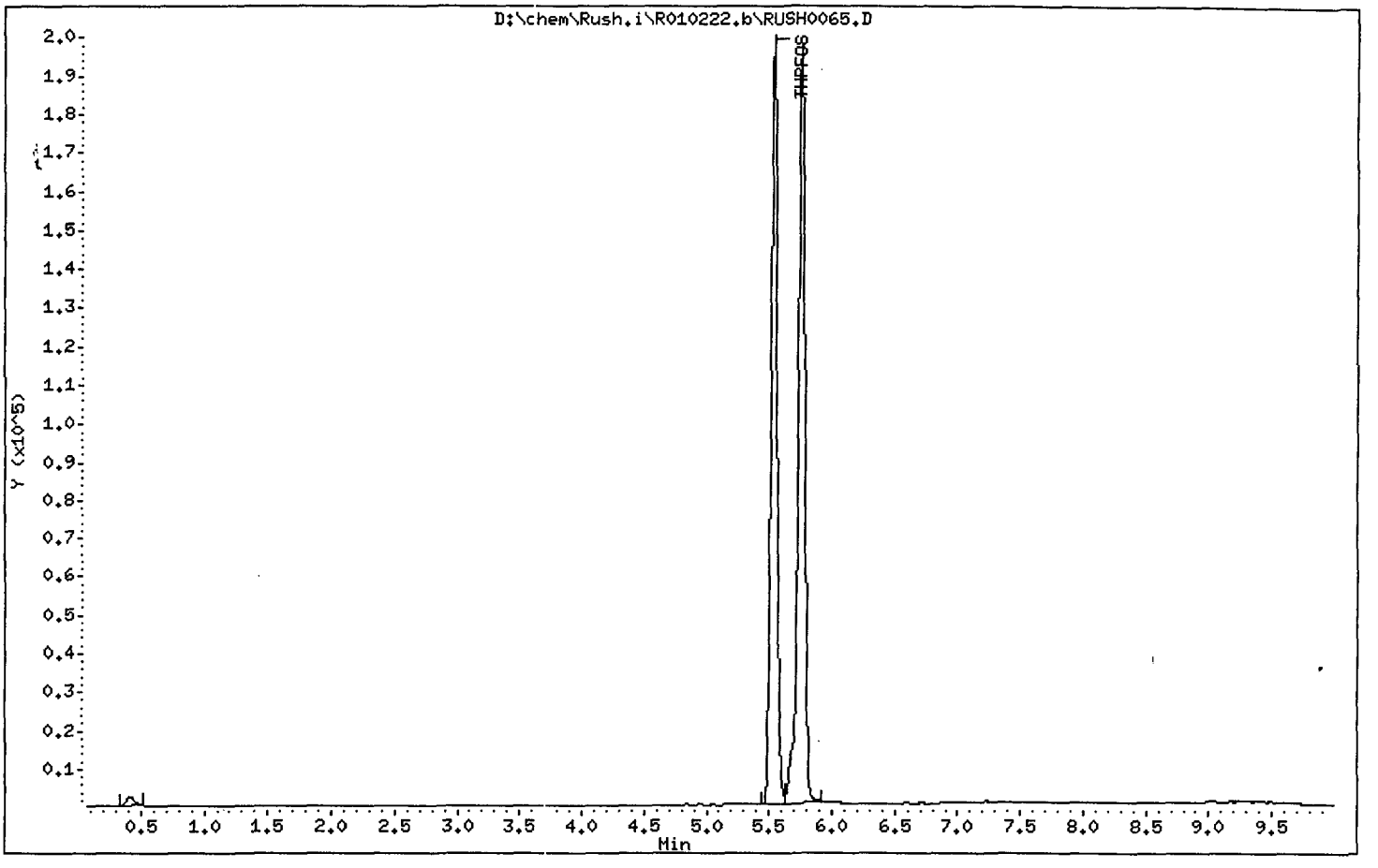


3M Environmental Laboratory

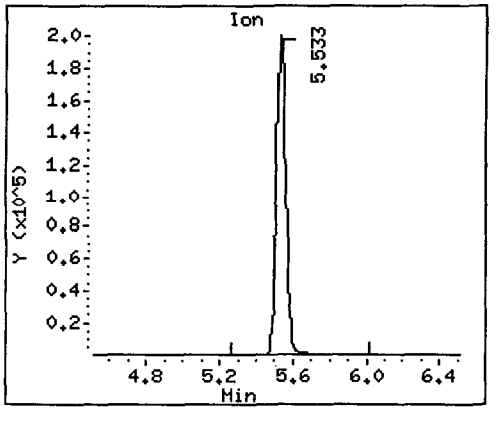
Data file : D:\chem\Rush.i\R010222.b\RUSH0065.D
Lab Smp Id:
Inj Date : 23-FEB-2001 04:53
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4067-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

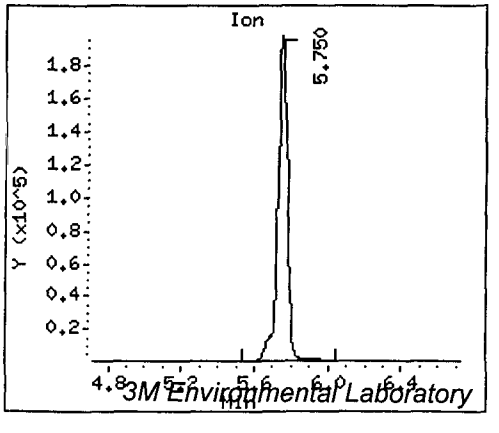
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.532	5.512	(1.000)	715149	249.300	
2 PFOS	499	5.750	5.722	(1.039)	708991	39.3413	39.3



× 1 THPFOS



2 PFOS



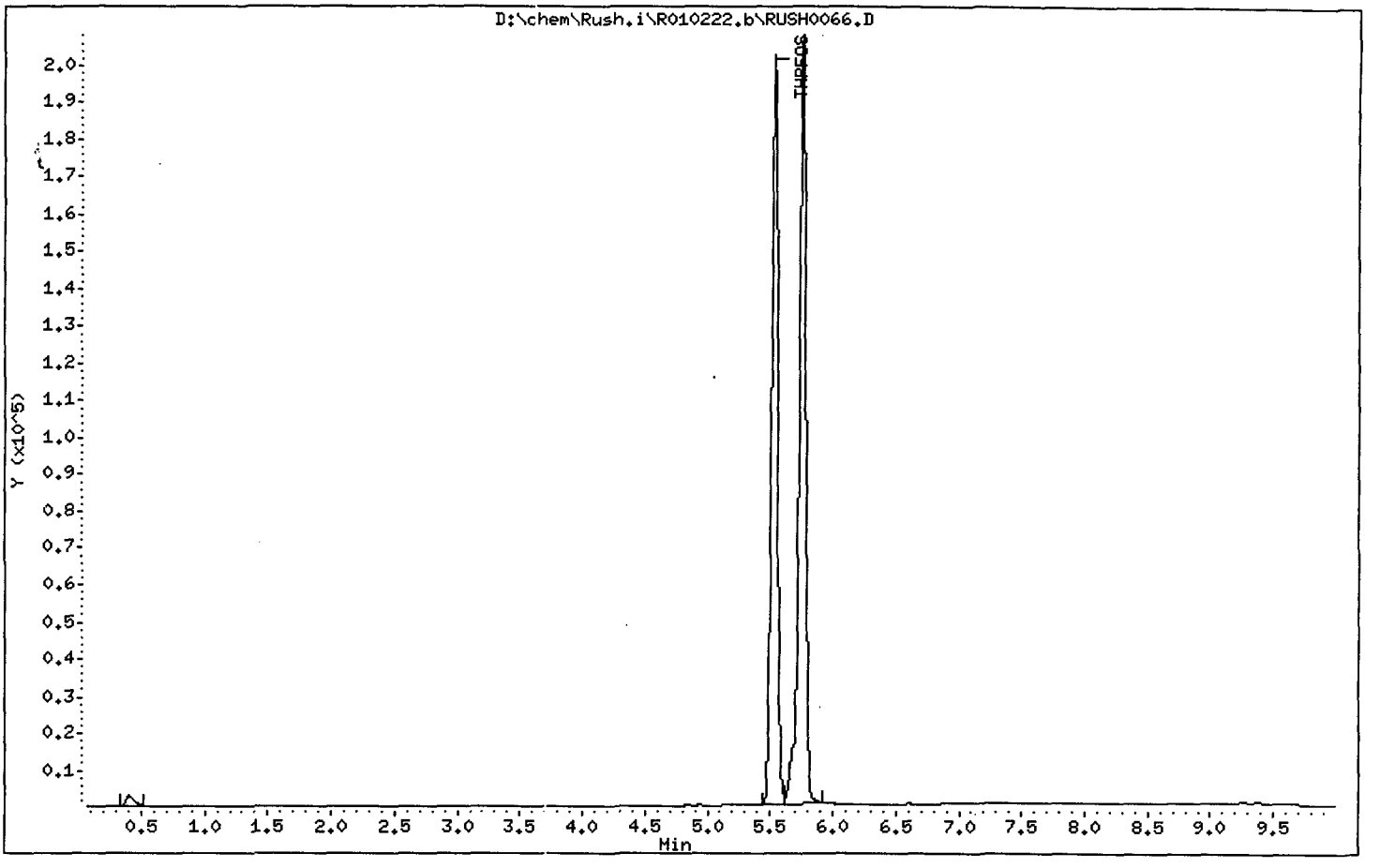
Data File: D:\chem\Rush.i\R010222.b\RUSH0066.D
Report Date: 09-Mar-2001 10:01

3M Environmental Laboratory

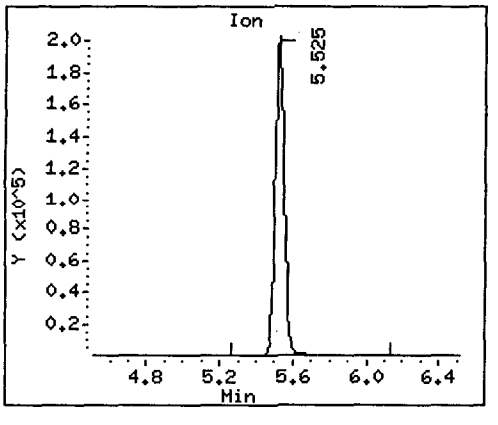
Data file : D:\chem\Rush.i\R010222.b\RUSH0066.D
Lab Smp Id:
Inj Date : 23-FEB-2001 05:04
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4068-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

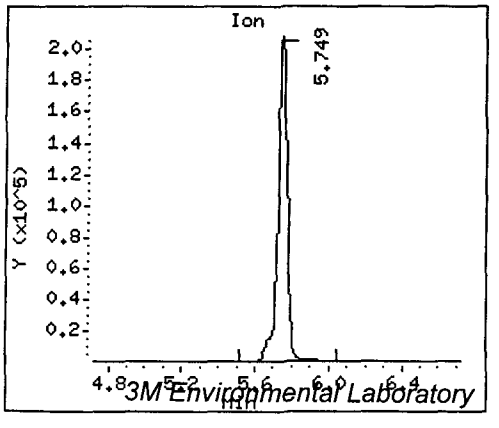
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.525	5.512	(1.000)	718563	249.300	
2 PFOS	499	5.749	5.722	(1.041)	738565	40.8065	40.8



* 1 THPFOS



2 PFOS



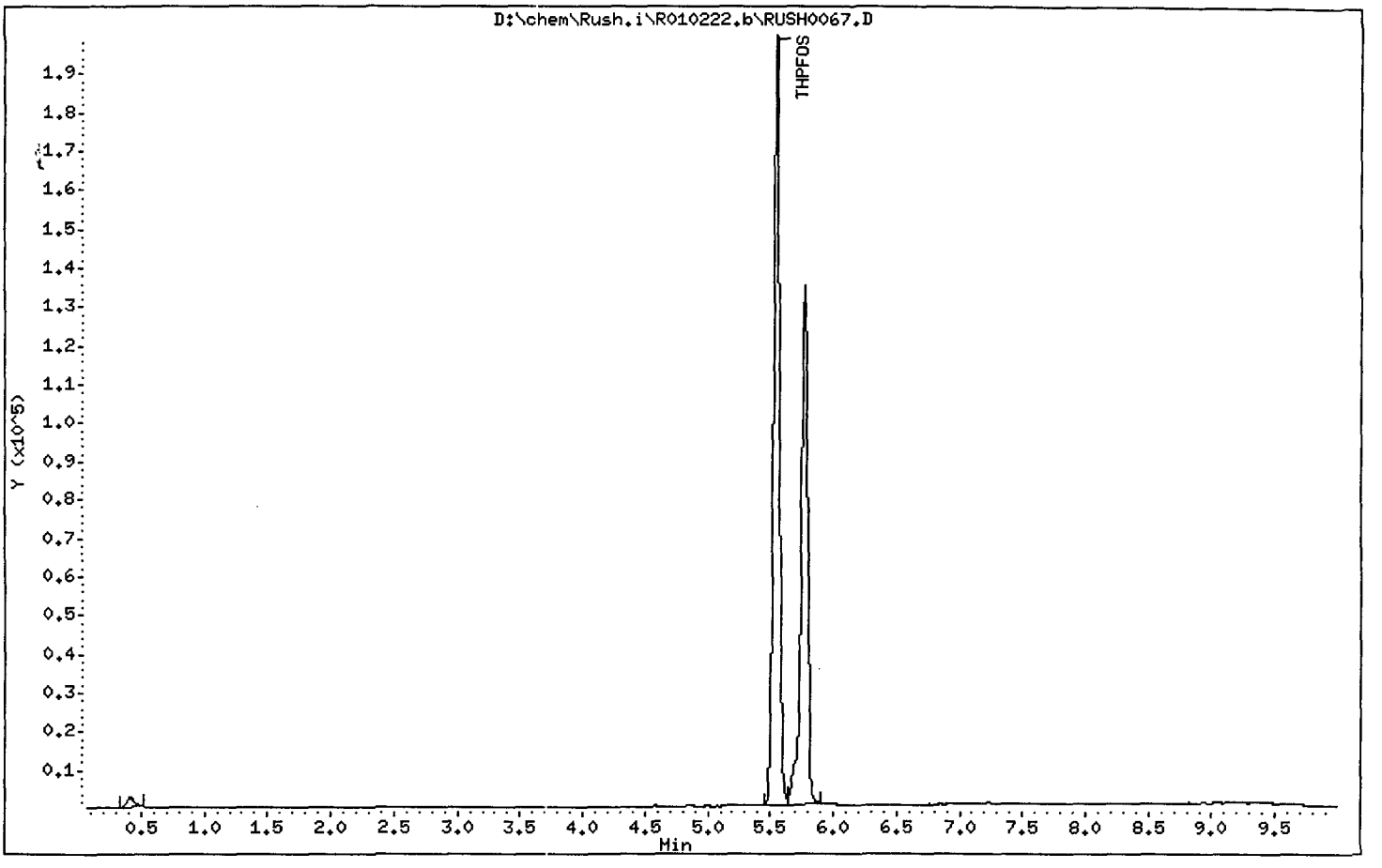
Data File: D:\chem\Rush.i\R010222.b\RUSH0067.D
Report Date: 09-Mar-2001 10:01

3M Environmental Laboratory

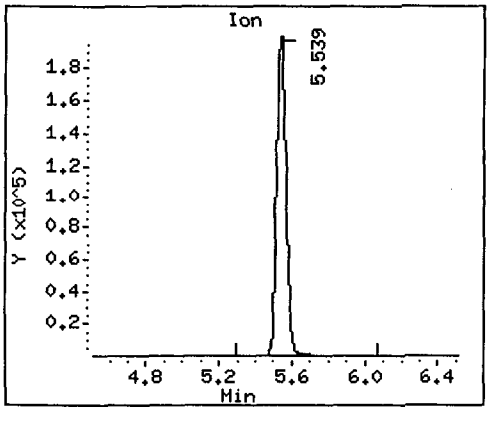
Data file : D:\chem\Rush.i\R010222.b\RUSH0067.D
Lab Smp Id:
Inj Date : 23-FEB-2001 05:16
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4069-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

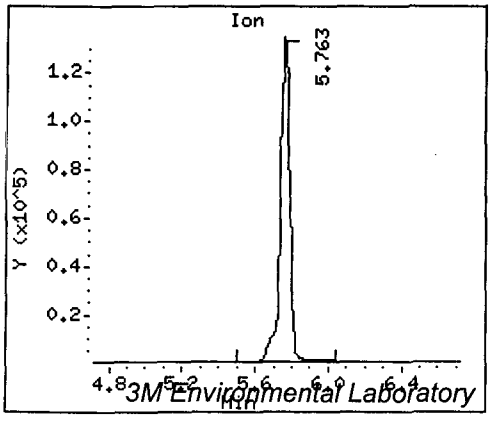
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.539	5.512	(1.000)	721833	249.300	
2 PFOS	499	5.763	5.722	(1.040)	483585	26.4888	26.5



× 1 THPFOS



2 PFOS



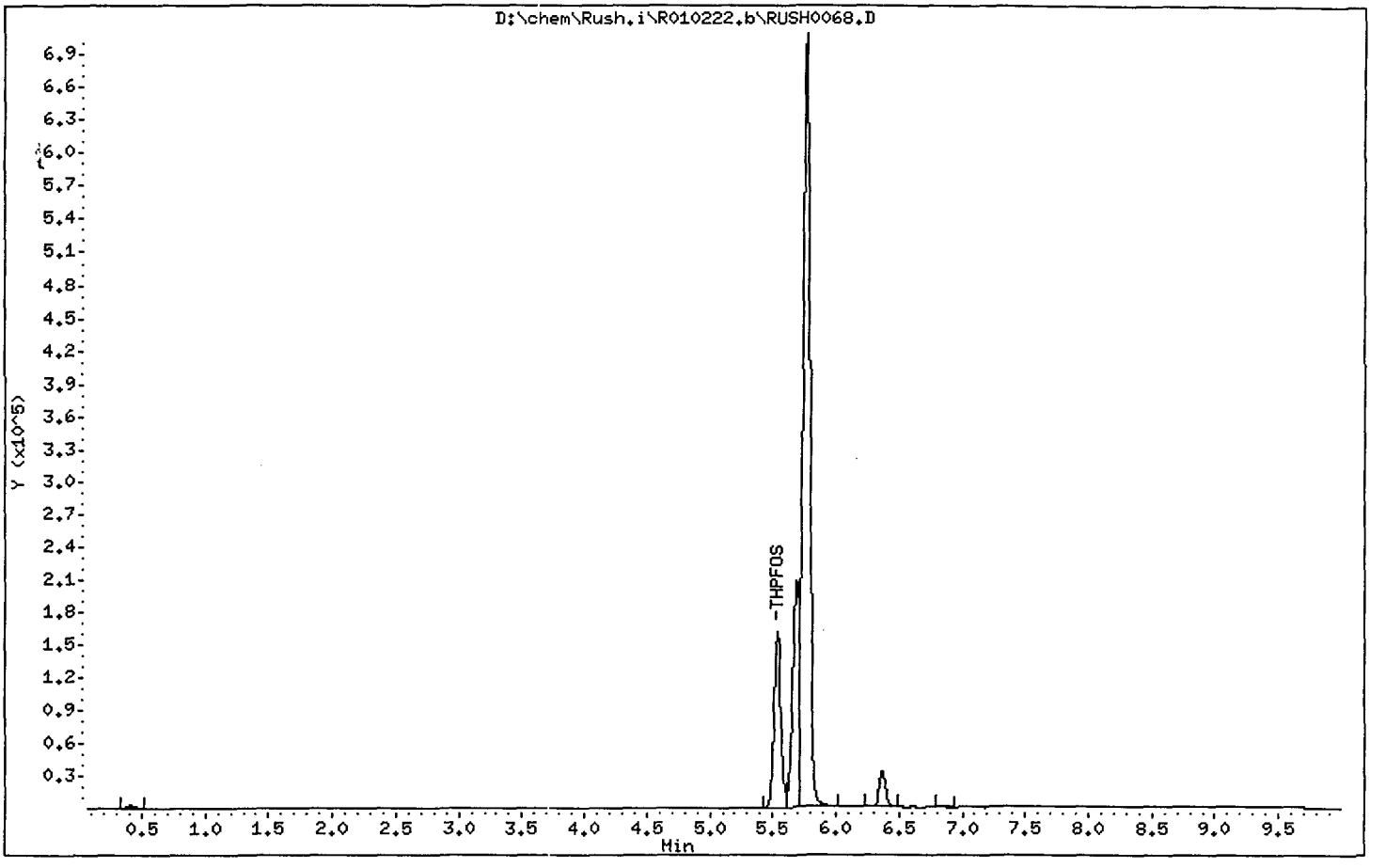
Data File: D:\chem\Rush.i\R010222.b\RUSH0068.D
Report Date: 09-Mar-2001 10:0[illegible]

3M Environmental Laboratory

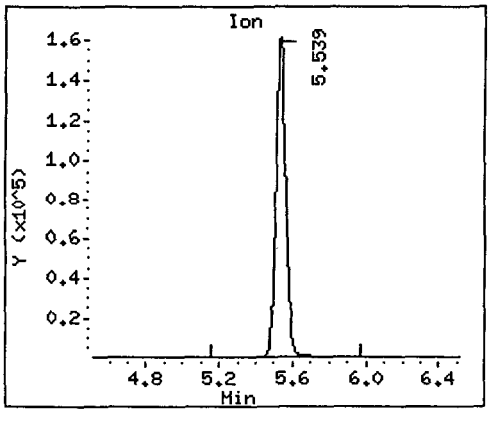
Data file : D:\chem\Rush.i\R010222.b\RUSH0068.D
Lab Smp Id:
Inj Date : 23-FEB-2001 05:27
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4069MS-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

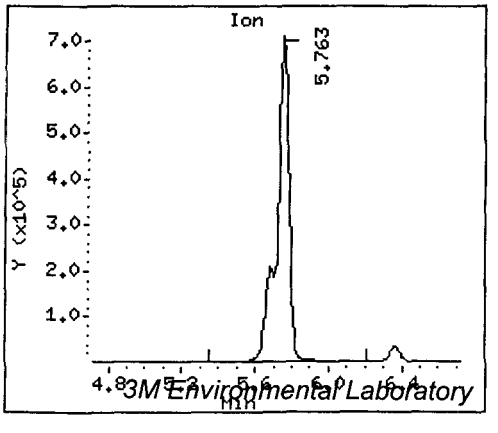
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.539	5.512	(1.000)	626695	249.300	
2 PFOS	499	5.763	5.722	(1.040)	3383101	228.263	228



× 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010222.b\RUSH0069.D
Report Date: 09-Mar-2001 10:02

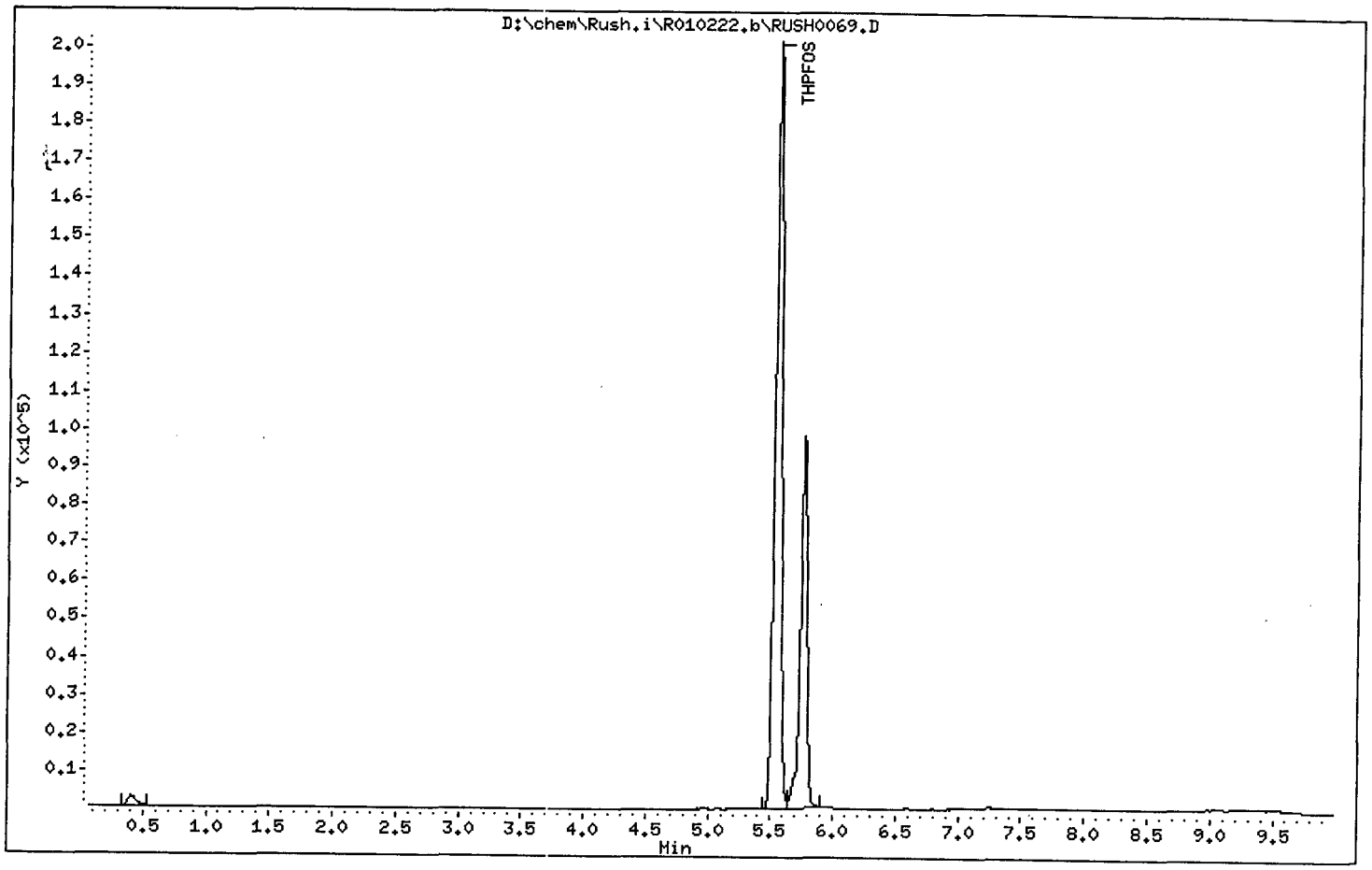
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0069.D
Lab Smp Id:
Inj Date : 23-FEB-2001 05:38
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4070-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

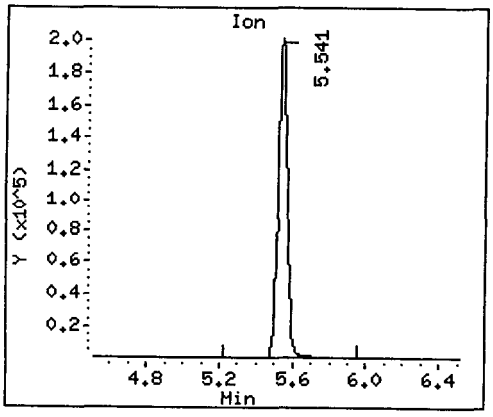
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.541	5.512	(1.000)	723074	249.300	
2 PFOS	499	5.758	5.722	(1.039)	353028	19.2794	19.3

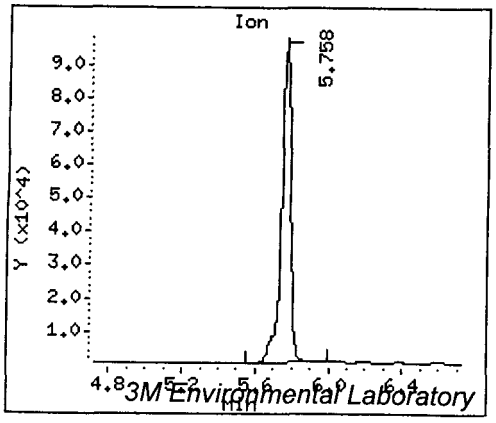
Data File: D:\chem\Rush.i\R010222.b\RUSH0069.D



* 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010222.b\RUSH0070.D
Report Date: 09-Mar-2001 10:02

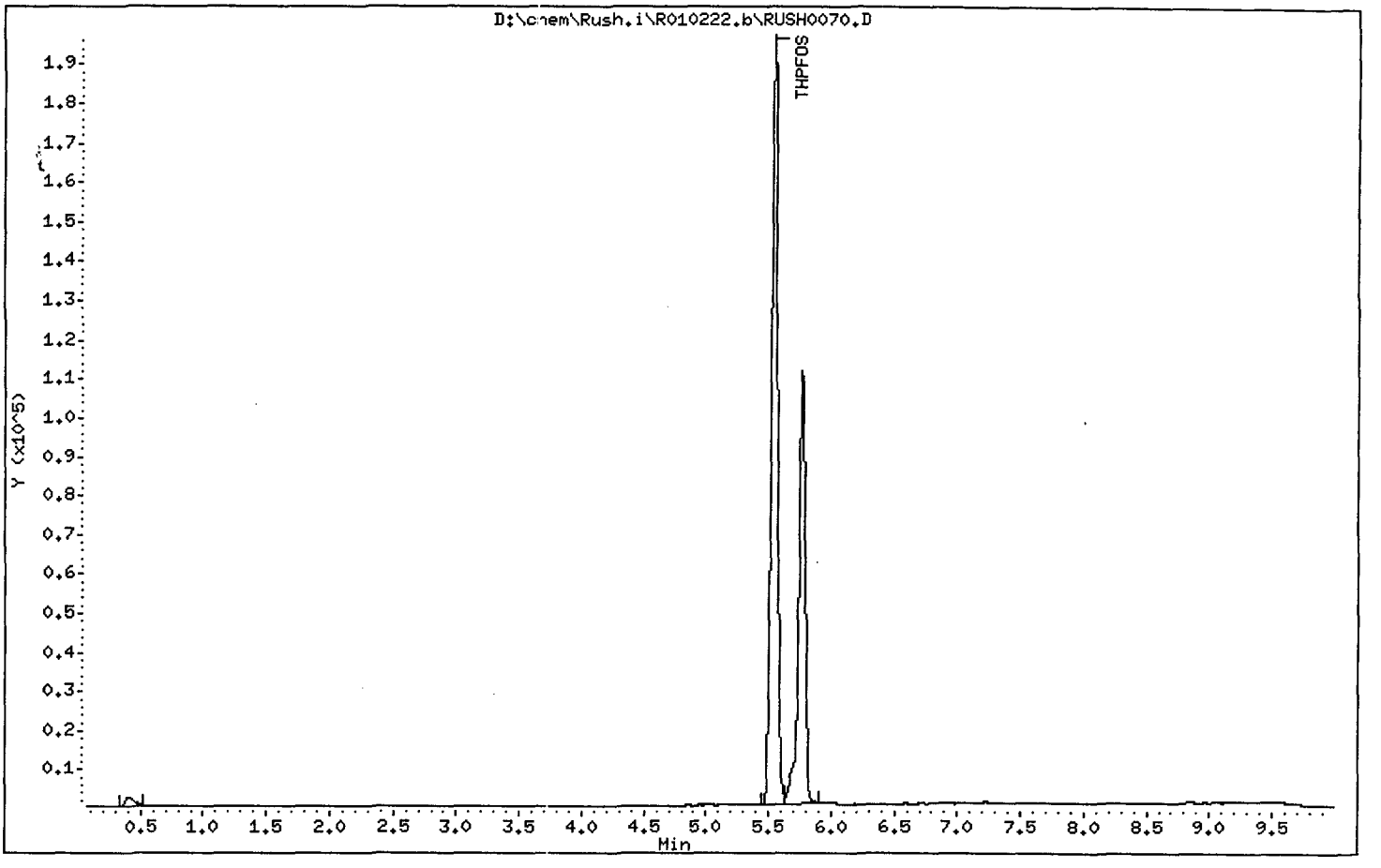
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0070.D
Lab Smp Id:
Inj Date : 23-FEB-2001 05:49
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4071-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 39
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

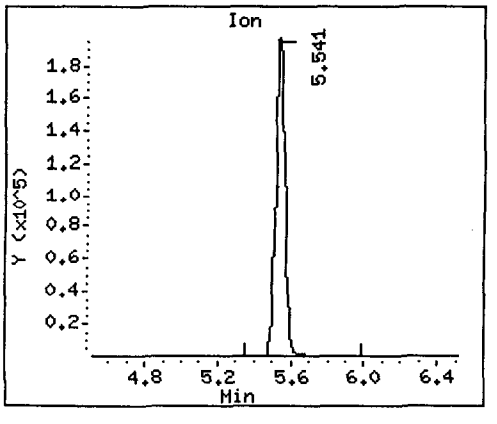
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.541	5.512	(1.000)	713569	249.300	
2 PFOS	499	5.758	5.722	(1.039)	401704	22.2391	22.2

Data File: D:\chem\Rush.i\R010222.b\RUSH0070.D



× 1 THPFOS



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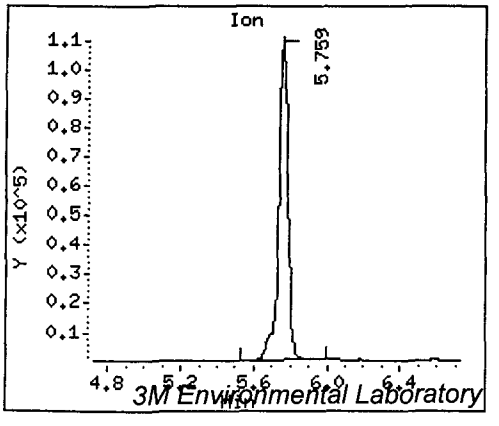


Data File: D:\chem\Rush.i\R010222.b\RUSH0071.D
Report Date: 09-Mar-2001 10:02

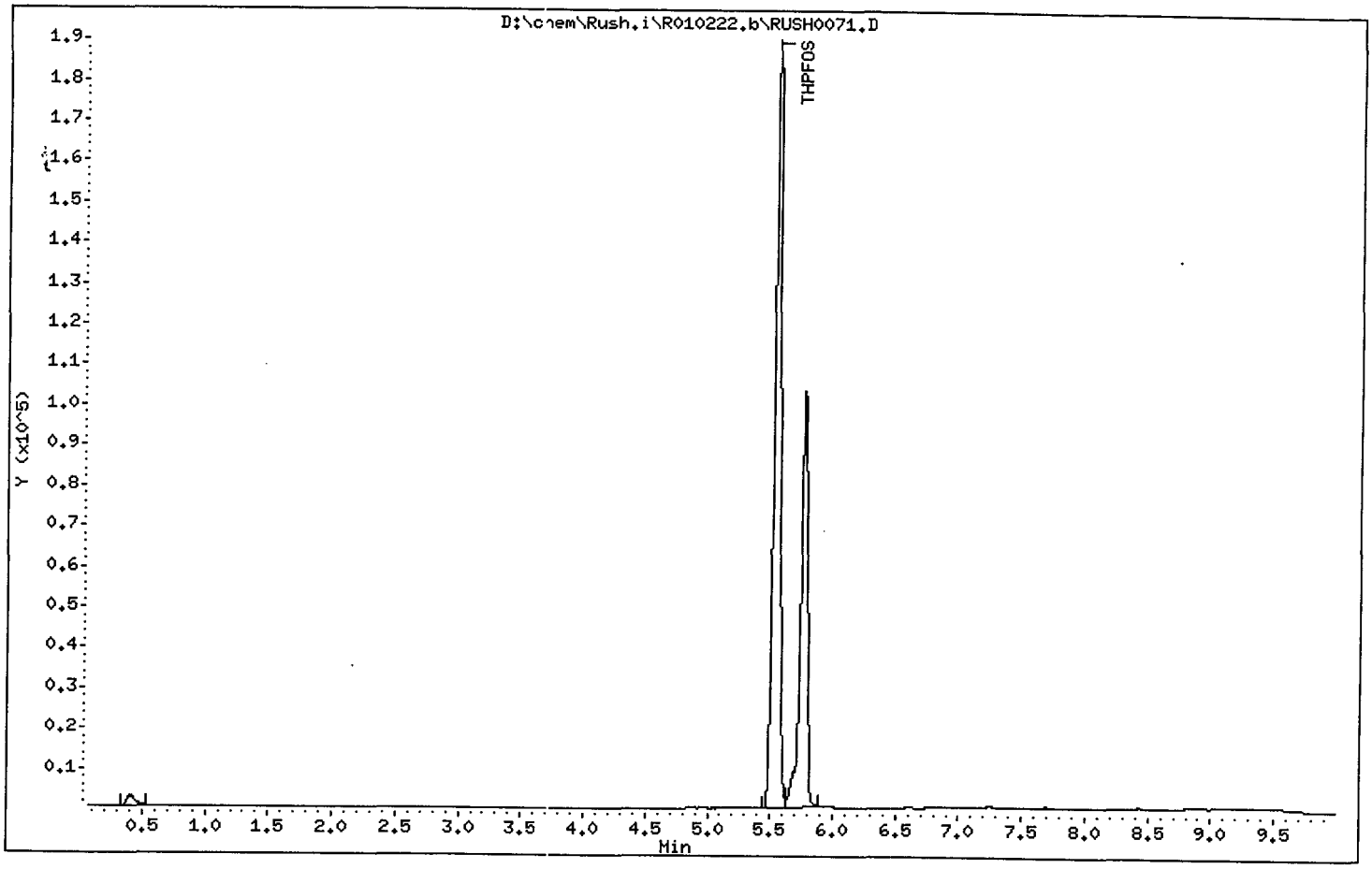
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0071.D
Lab Smp Id:
Inj Date : 23-FEB-2001 06:00
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4072-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 40
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

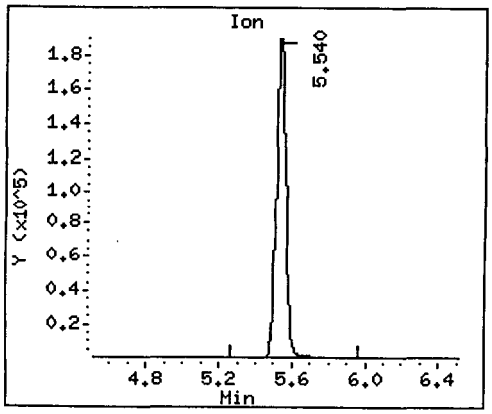
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.539	5.512	(1.000)	710887	249.300	
2 PFOS	499	5.756	5.722	(1.039)	385139	21.3995	21.4

Data File: D:\chem\Rush.i\R010222.b\RUSH0071.D



* 1 THPFOS



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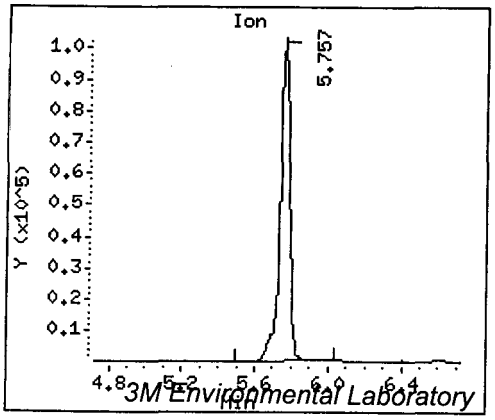


Data File: D:\chem\Rush.i\R010222.b\RUSH0072.D
Report Date: 09-Mar-2001 10:02

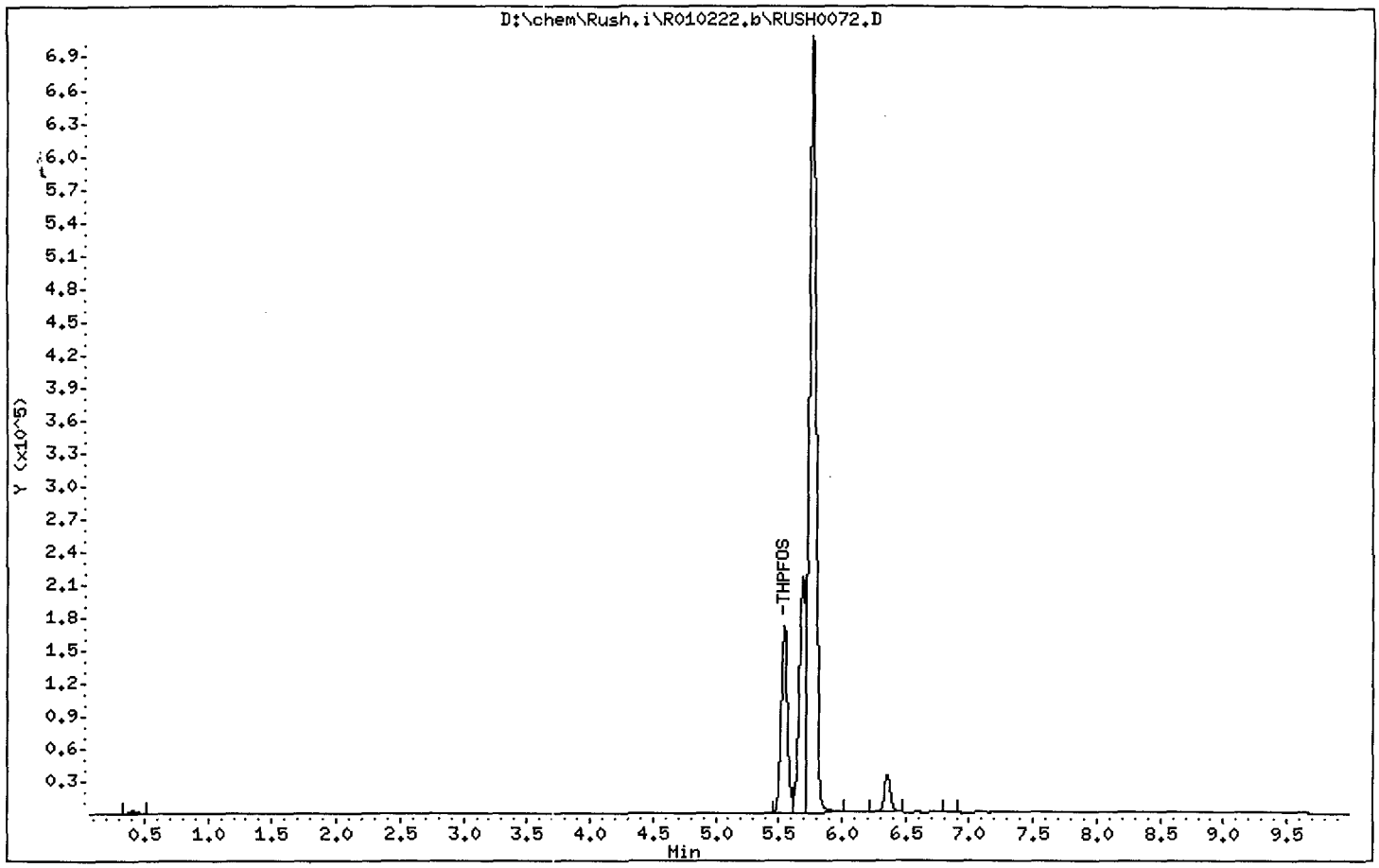
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0072.D
Lab Smp Id:
Inj Date : 23-FEB-2001 06:11
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4072MS-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

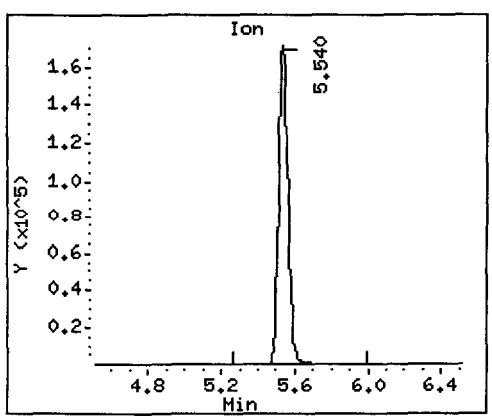
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.539	5.512	(1.000)	626987	249.300	
2 PFOS	499	5.756	5.722	(1.039)	3324237	223.877	224

Data File: D:\chem\Rush.i\R010222.b\RUSH0072.D



* 1 THPFOS



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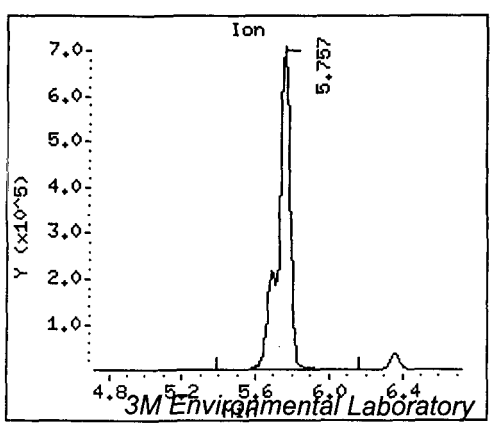


Data File: D:\chem\Rush.i\R010222.b\RUSH0073.D
Report Date: 09-Mar-2001 10:02

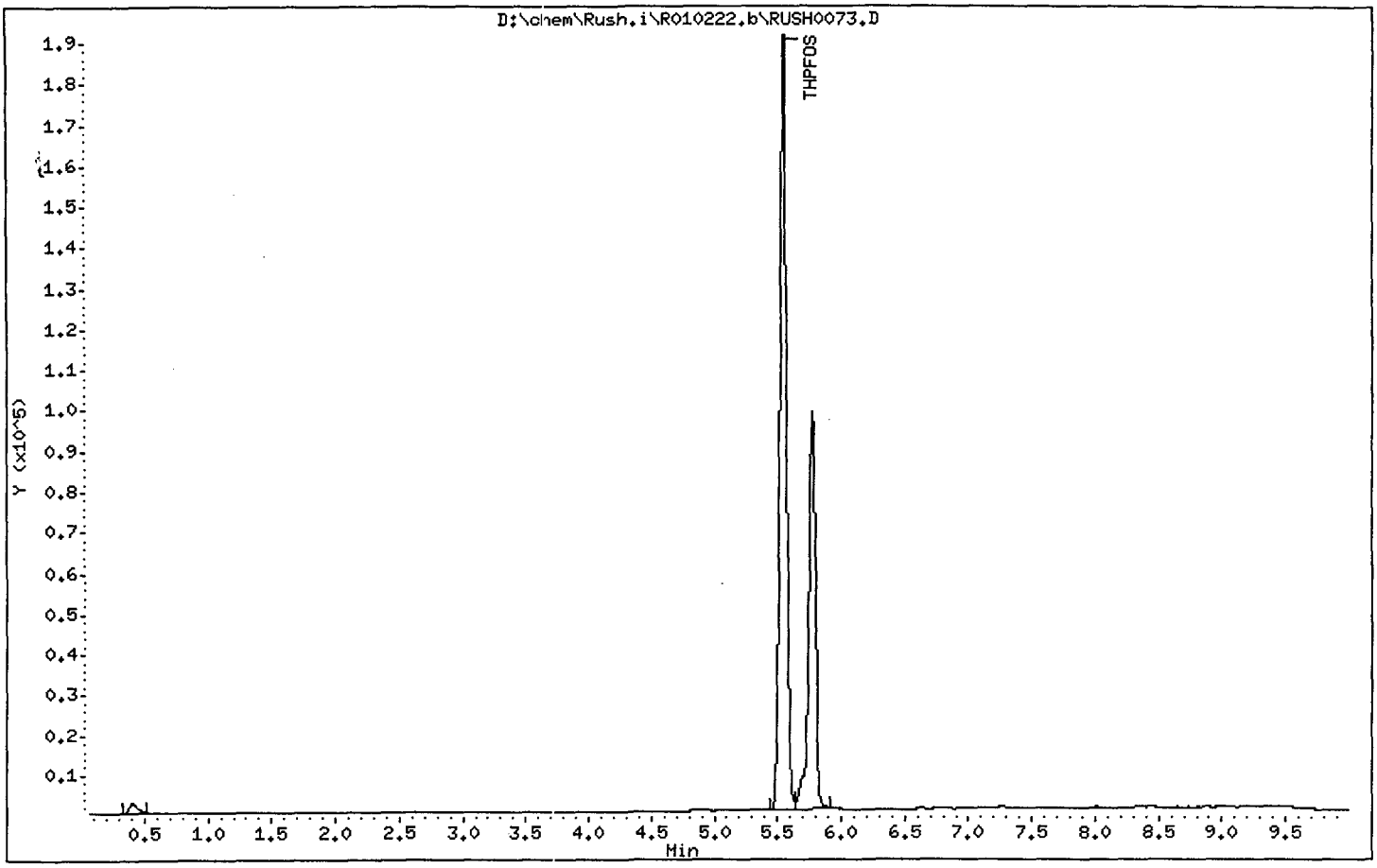
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0073.D
Lab Smp Id:
Inj Date : 23-FEB-2001 06:23
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4073-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

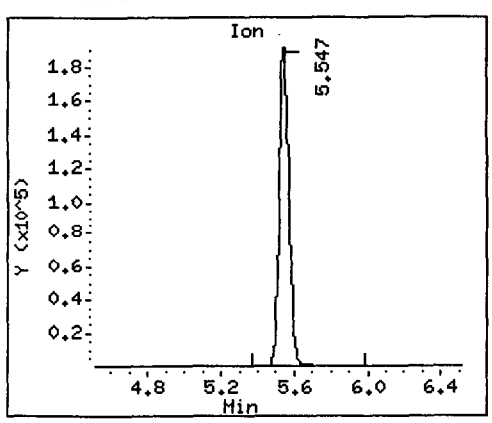
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.546	5.512	(1.000)	719422	249.300	
2 PFOS	499	5.770	5.722	(1.040)	366061	20.0945	20.1

Data File: D:\chem\Rush.i\R010222.b\RUSH0073.D



* 1 THPFOS



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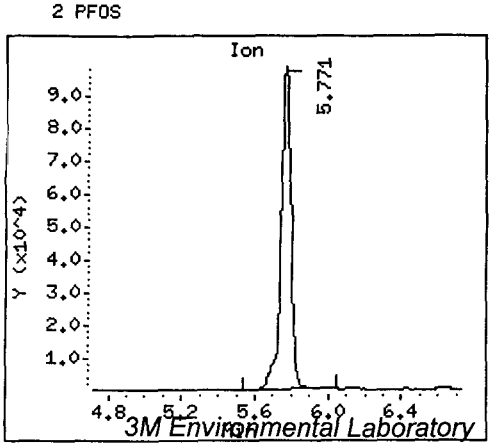


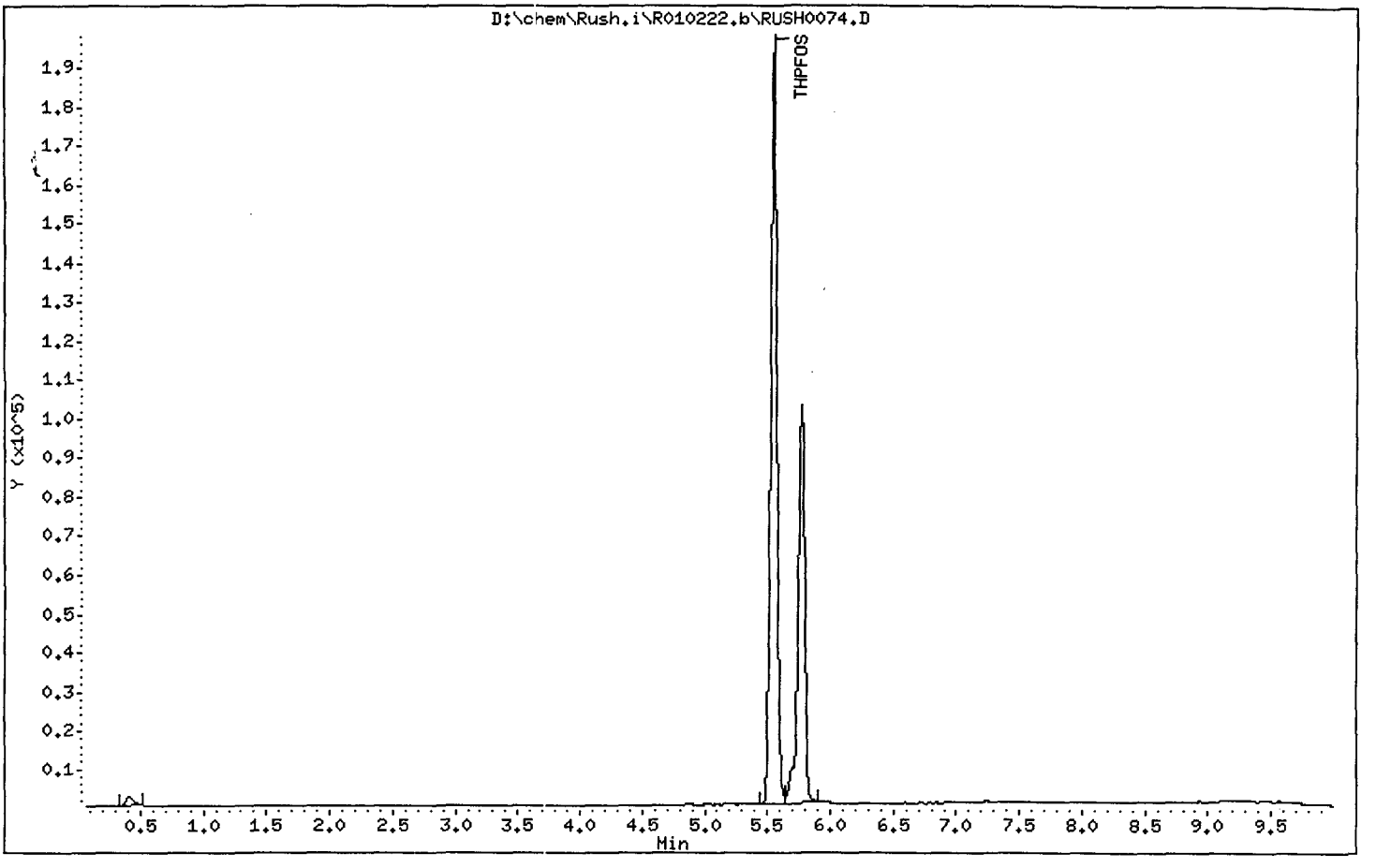
Data File: D:\chem\Rush.i\R010222.b\RUSH0074.D
Report Date: 09-Mar-2001 10:02

3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0074.D
Lab Smp Id:
Inj Date : 23-FEB-2001 06:34
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4074-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.546	5.512	(1.000)	721925	249.300	
2 PFOS	499	5.770	5.722	(1.040)	377219	20.6367	20.6



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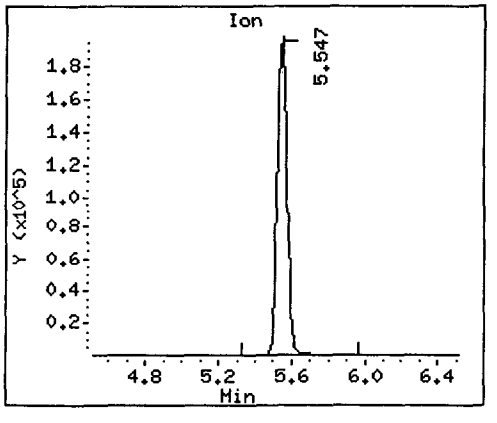

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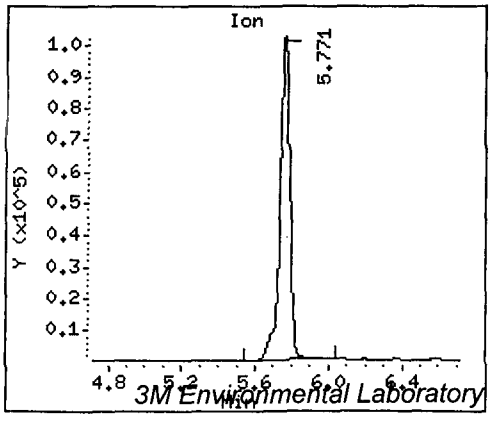


Data File: D:\chem\Rush.i\R010222.b\RUSH0079.D
Report Date: 09-Mar-2001 10:02

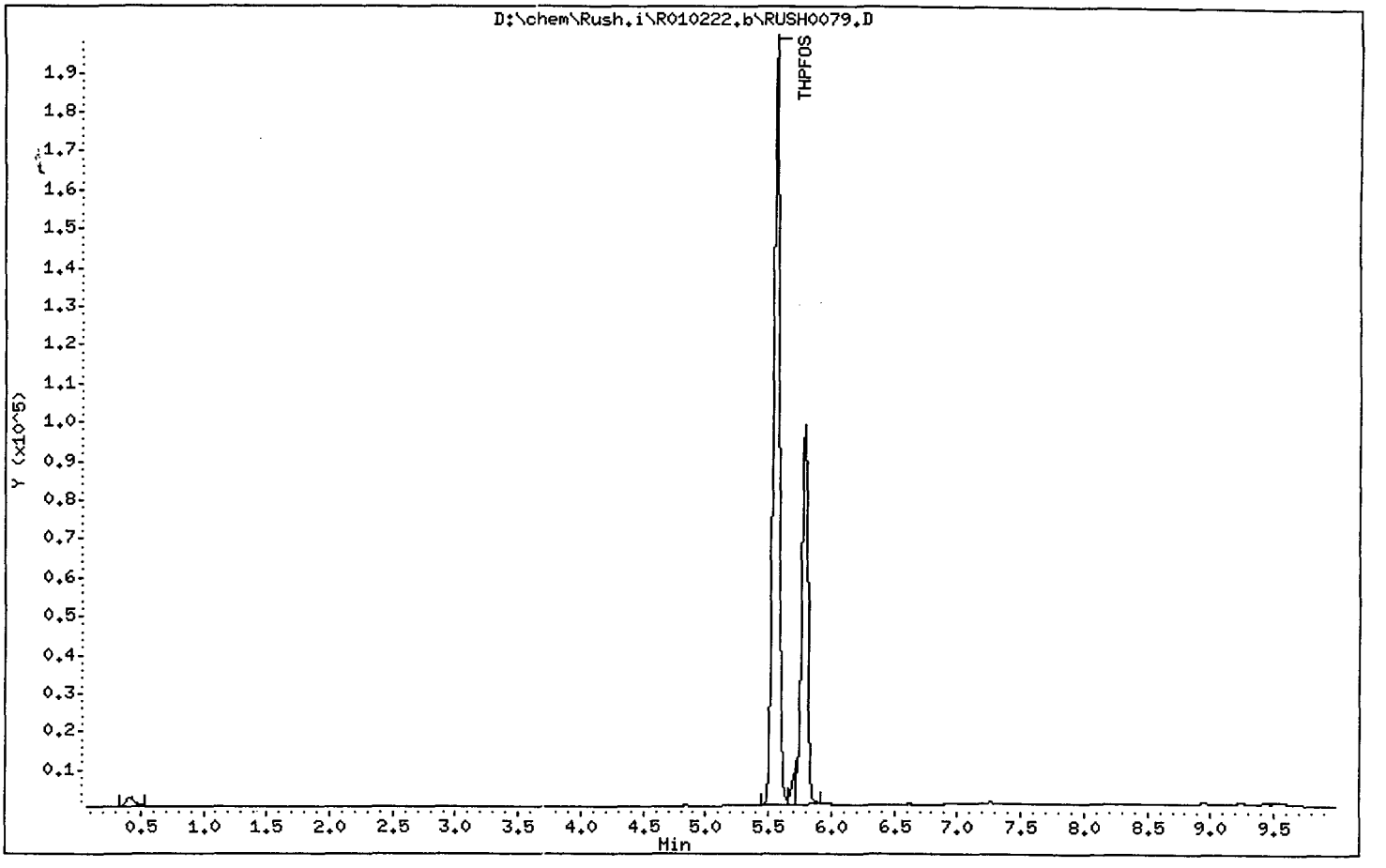
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0079.D
Lab Smp Id:
Inj Date : 23-FEB-2001 07:30
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4075-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

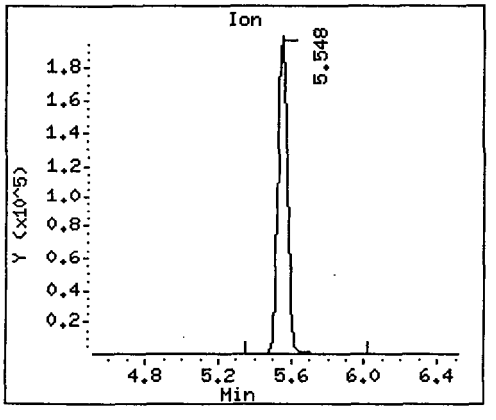
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.547	5.512	(1.000)	721016	249.300	
2 PFOS	499	5.779	5.722	(1.042)	356402	19.5198	19.5

Data File: D:\chem\Rush.i\R010222.b\RUSH0079.D



* 1 THPFOS



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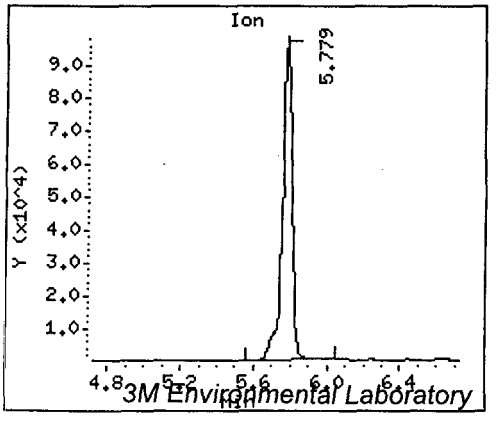


Data File: D:\chem\Rush.i\R010222.b\RUSH0080.D
Report Date: 09-Mar-2001 10:02

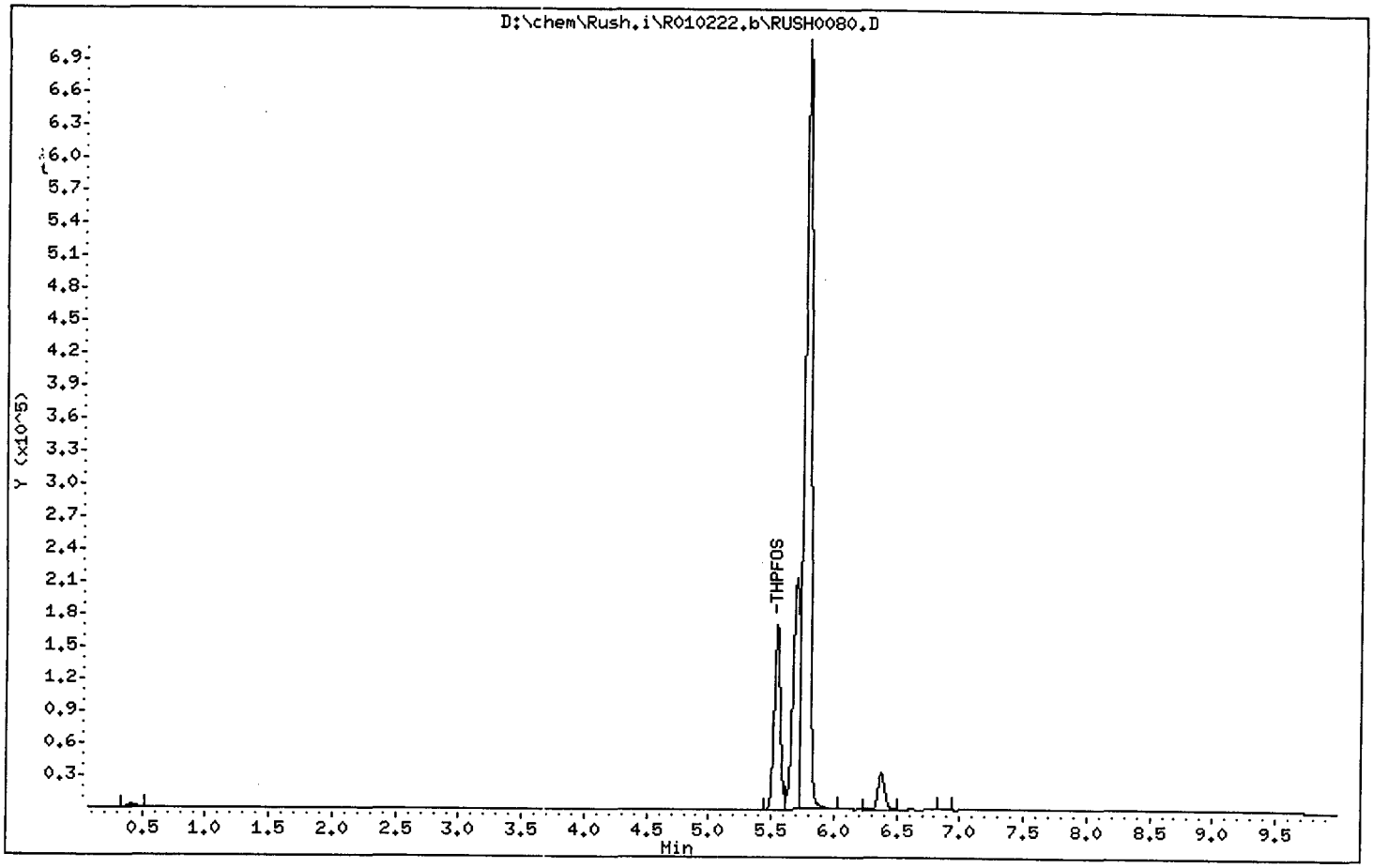
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0080.D
Lab Smp Id:
Inj Date : 23-FEB-2001 07:41
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4075MS-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 45
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

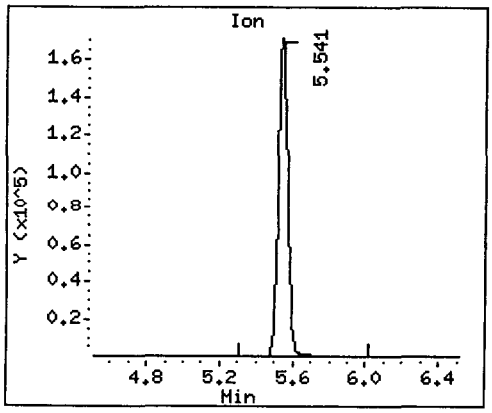
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.541	5.512	(1.000)	630748	249.300	
2 PFOS	499	5.772	5.722	(1.042)	3329105	222.791	223

Data File: D:\chem\Rush.i\R010222.b\RUSH0080.D



* 1 THPFOS



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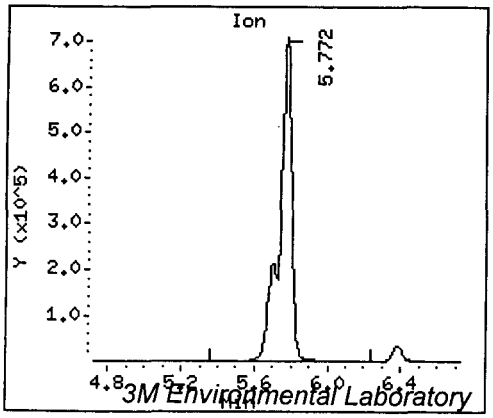


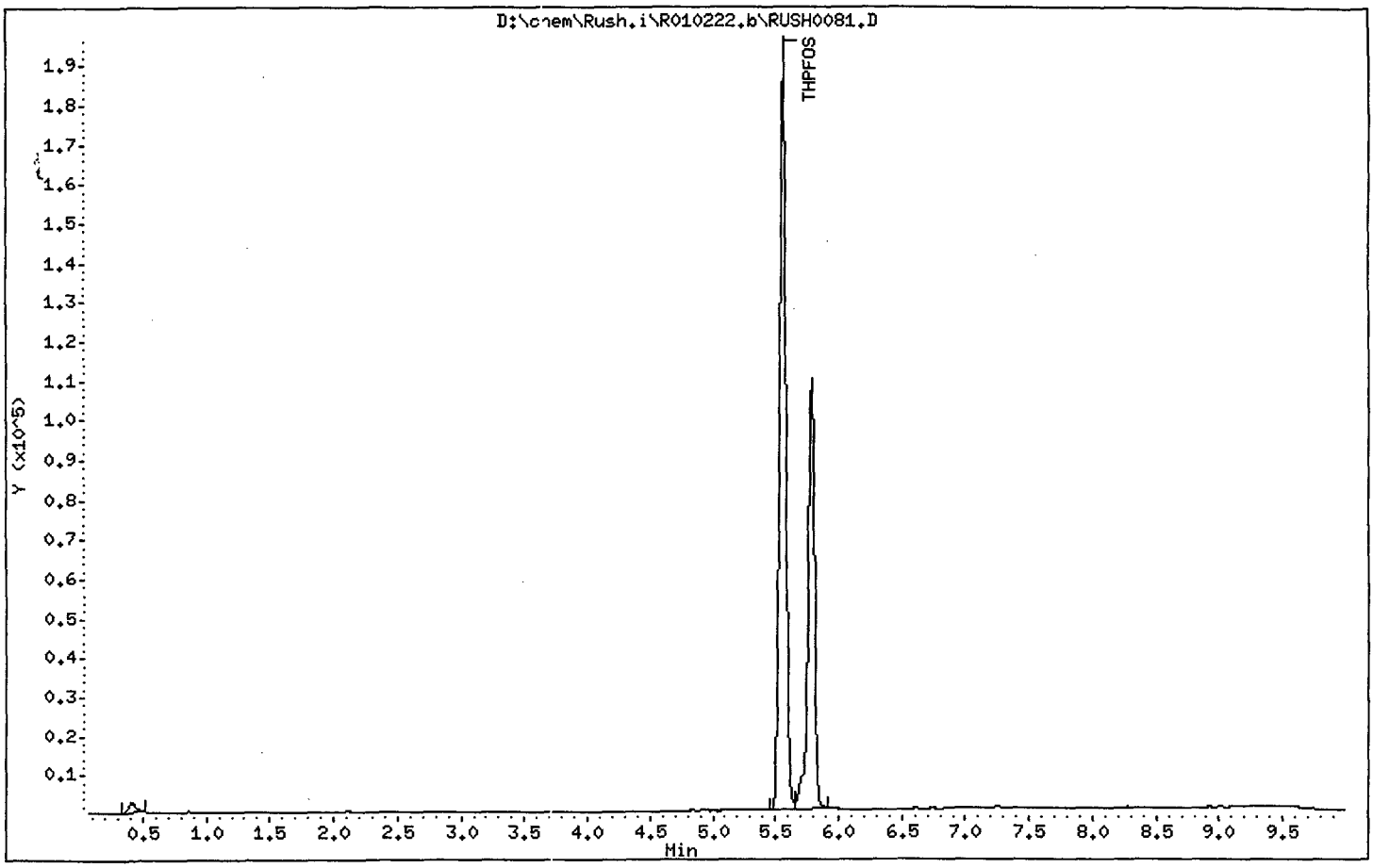
Data File: D:\chem\Rush.i\R010222.b\RUSH0081.D
Report Date: 09-Mar-2001 10:02

3M Environmental Laboratory

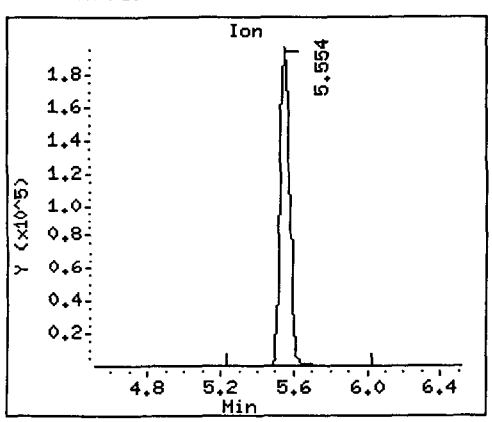
Data file : D:\chem\Rush.i\R010222.b\RUSH0081.D
Lab Smp Id:
Inj Date : 23-FEB-2001 07:52
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4076-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 46
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

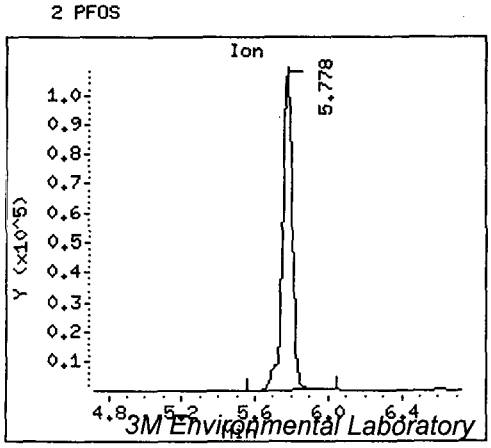
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.553	5.512	(1.000)	721345	249.300	
2 PFOS	499	5.777	5.722	(1.040)	400719	21.9443	21.9



✖ 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010222.b\RUSH0107.D
Report Date: 09-Mar-2001 10:03

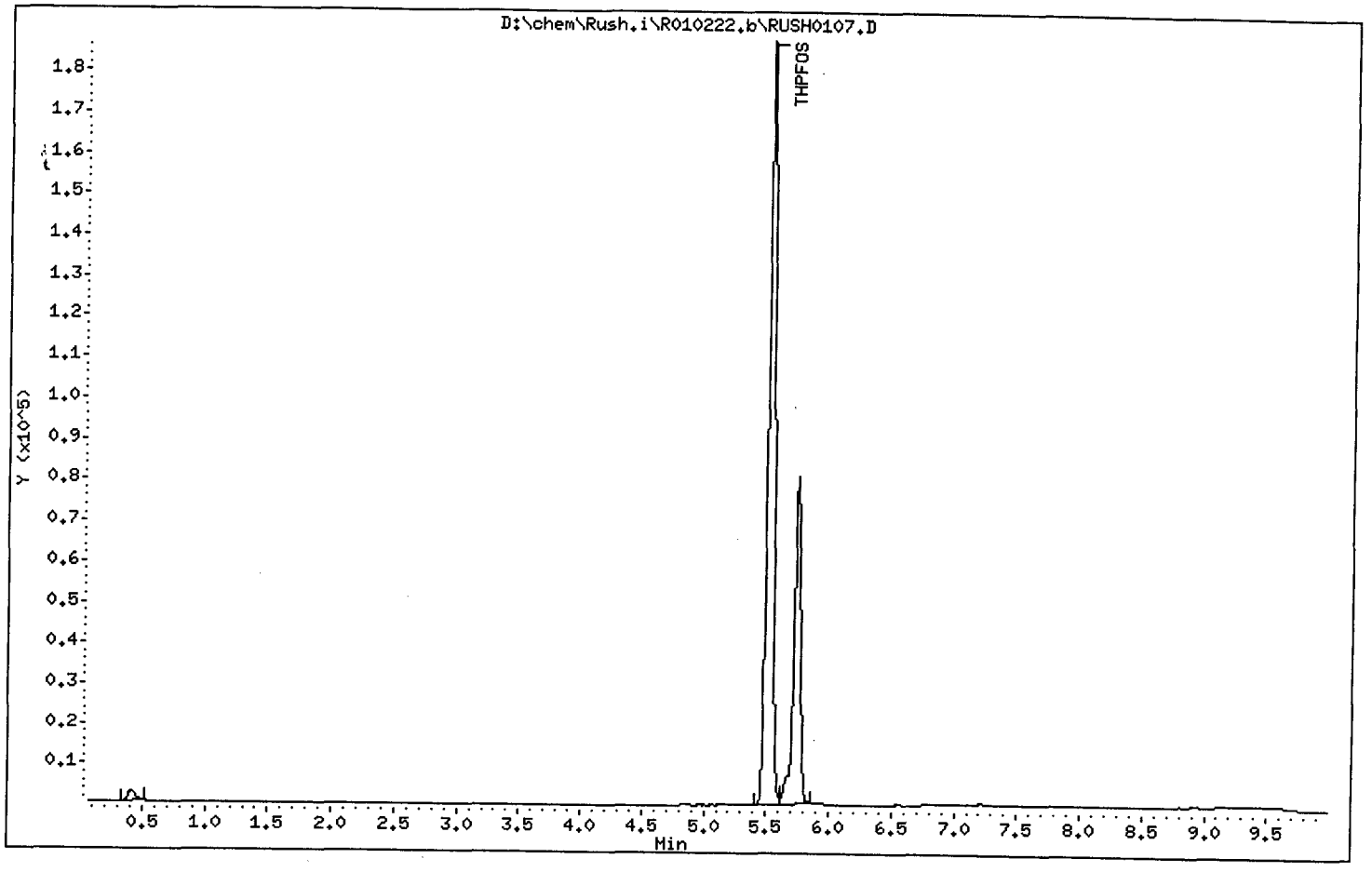
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0107.D
Lab Smp Id:
Inj Date : 23-FEB-2001 12:43
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4090-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 64
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

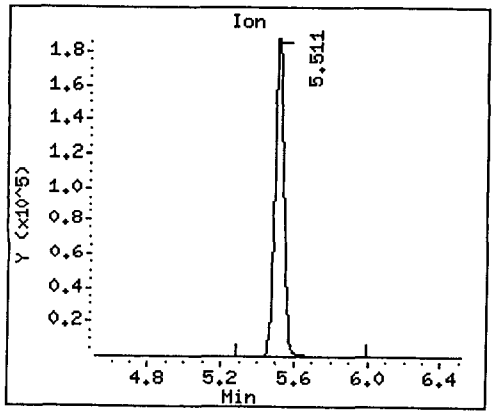
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.510	5.512	(1.000)	676009	249.300	
2 PFOS	499	5.734	5.722	(1.041)	288064	16.8245	16.8

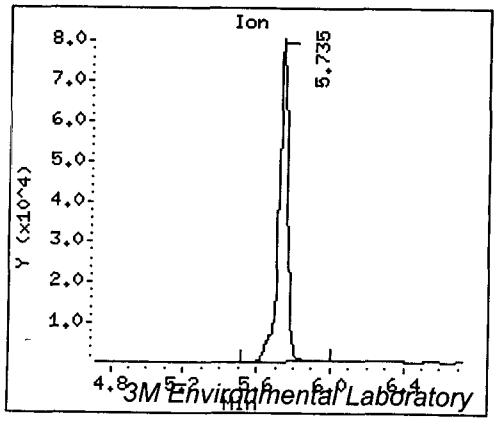
Data File: D:\chem\Rush.i\R010222.b\RUSH0107.D



× 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010222.b\RUSH0108.D
Report Date: 09-Mar-2001 10:03

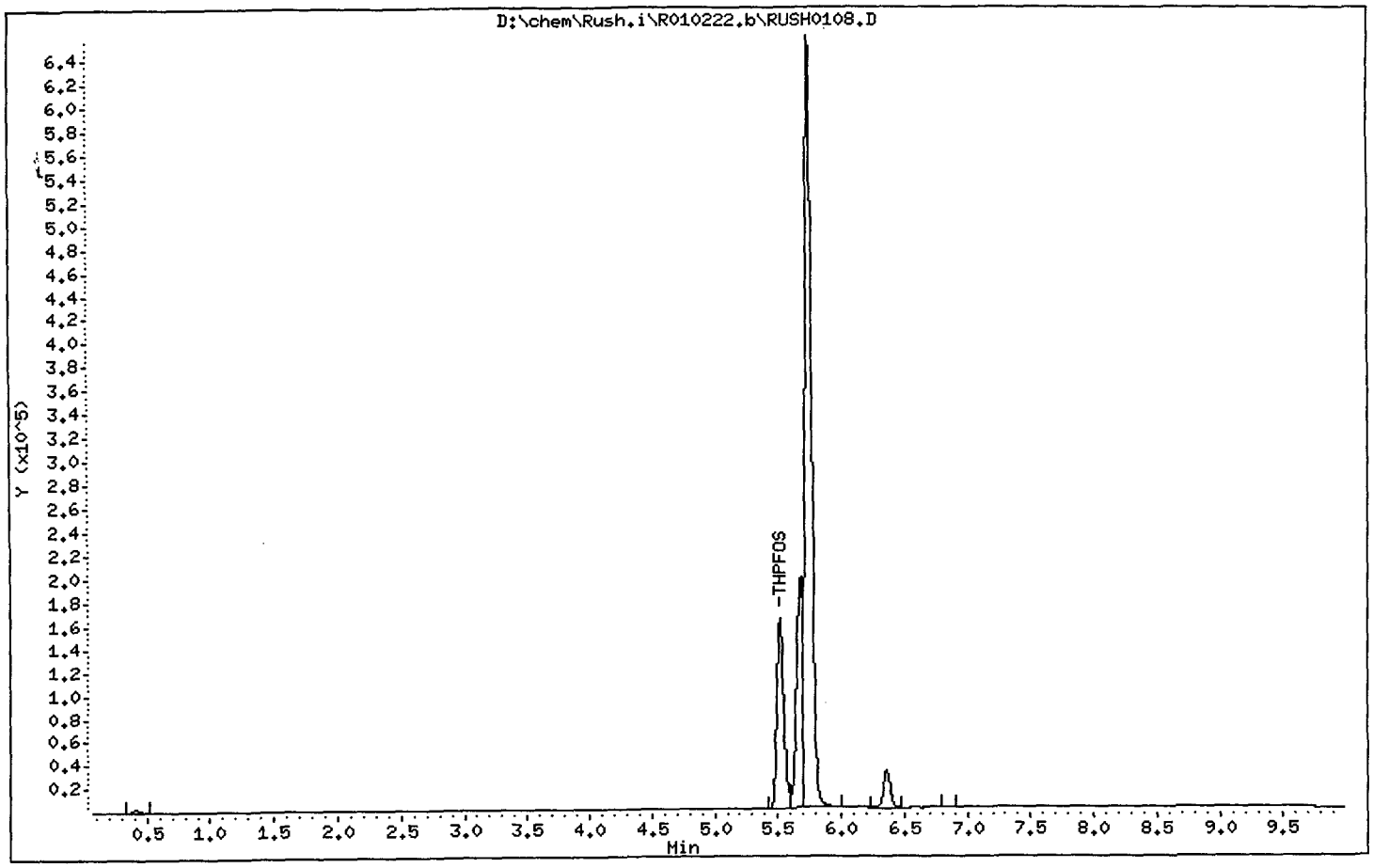
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0108.D
Lab Smp Id:
Inj Date : 23-FEB-2001 12:54
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4090MS-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 65
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

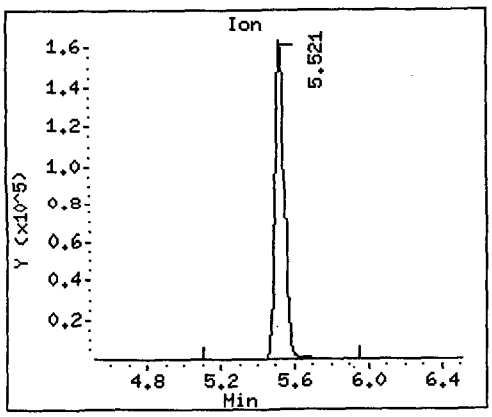
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.521	5.512	(1.000)	594782	249.300	
2 PFOS	499	5.745	5.722	(1.041)	3043722	215.511	216

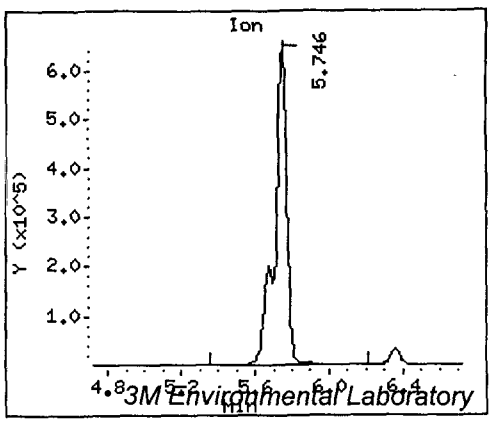
Data File: D:\chem\Rush.i\R010222.b\RUSH0108.D



× 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010222.b\RUSH0109.D
Report Date: 09-Mar-2001 10:03

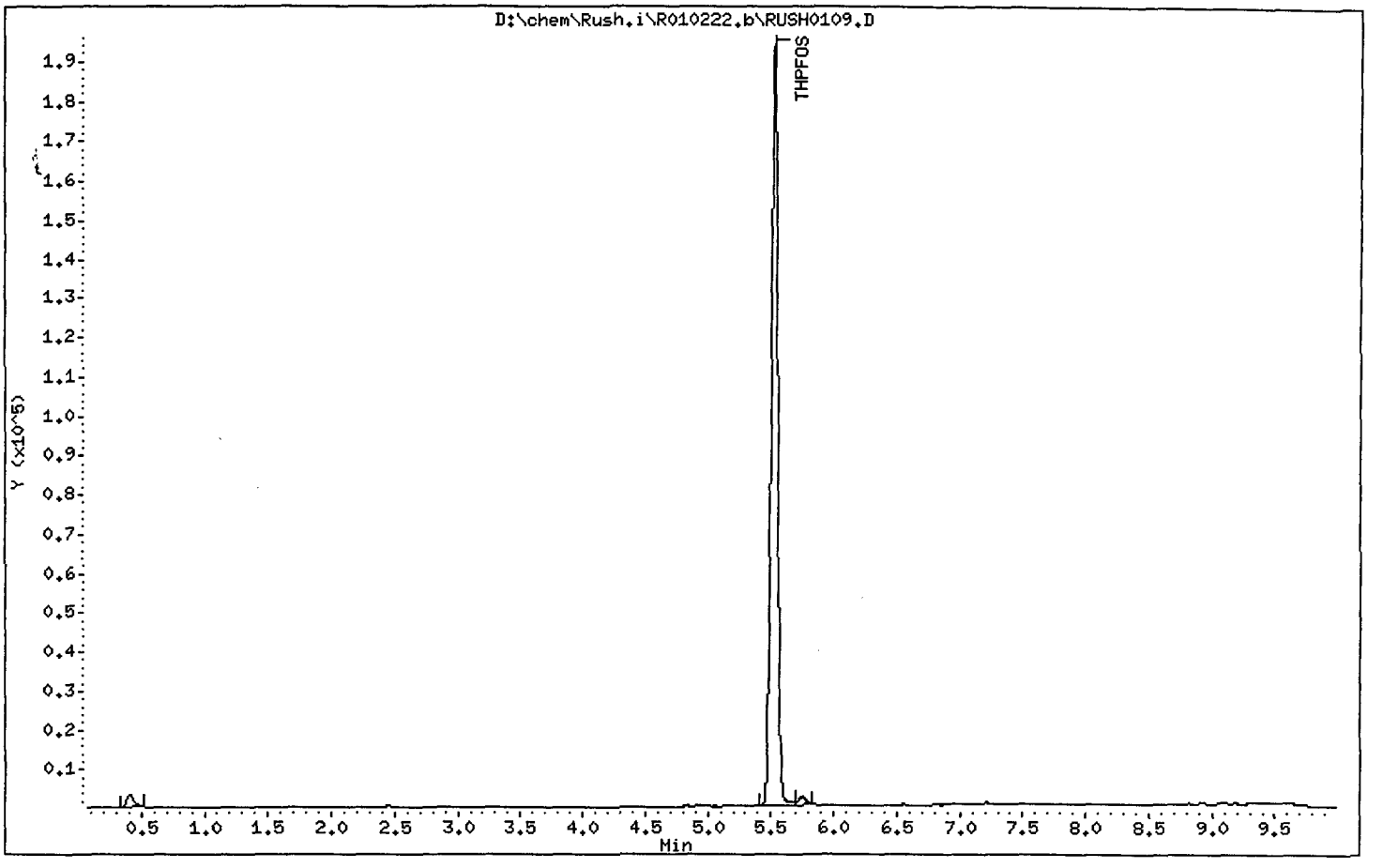
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0109.D
Lab Smp Id:
Inj Date : 23-FEB-2001 13:05
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4091-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 66
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.520	5.512	(1.000)	696138	249.300	
2 PFOS	499	Compound Not Detected.					

Data File: D:\chem\Rush.i\R010222.b\RUSH0109.D



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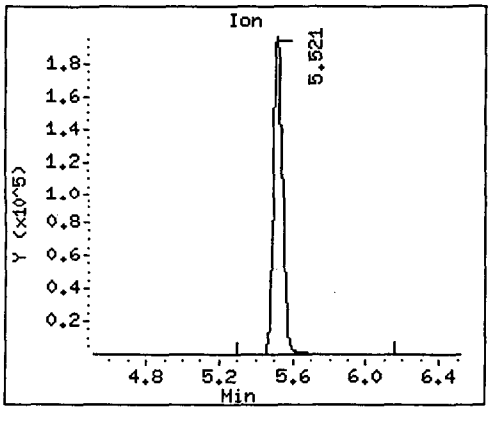
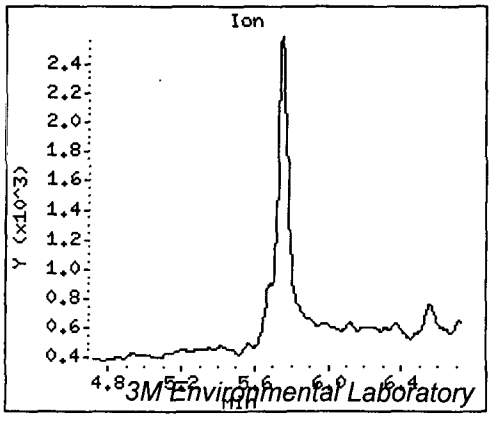


2 PFOS (Undetected)



Data File: D:\chem\Rush.i\R010222.b\RUSH0110.D
Report Date: 09-Mar-2001 10:03

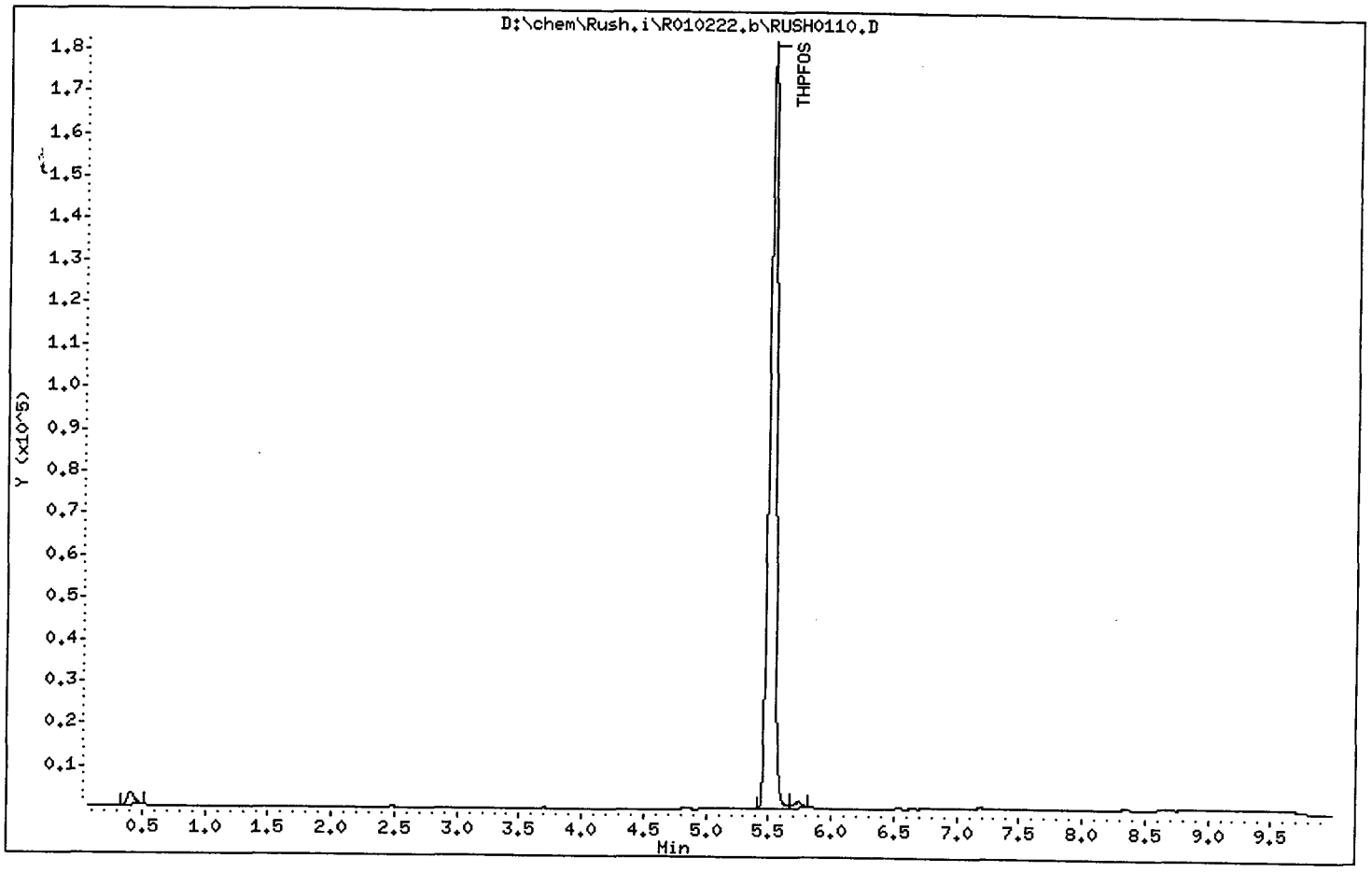
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0110.D
Lab Smp Id:
Inj Date : 23-FEB-2001 13:16
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4092-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 67
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

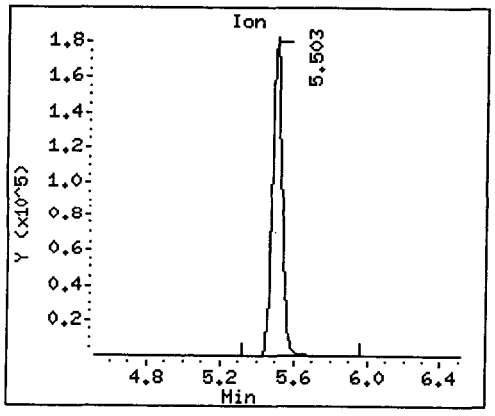
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.502	5.512	(1.000)	702240	249.300	
2 PFOS	499	Compound Not Detected.					

Data File: D:\chem\Rush.i\R010222.b\RUSH0110.D



* 1 THPFOS



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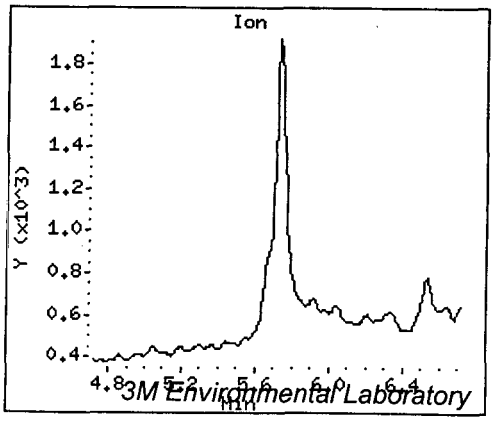


Data File: D:\chem\Rush.i\R010222.b\RUSH0111.D
Report Date: 09-Mar-2001 10:03

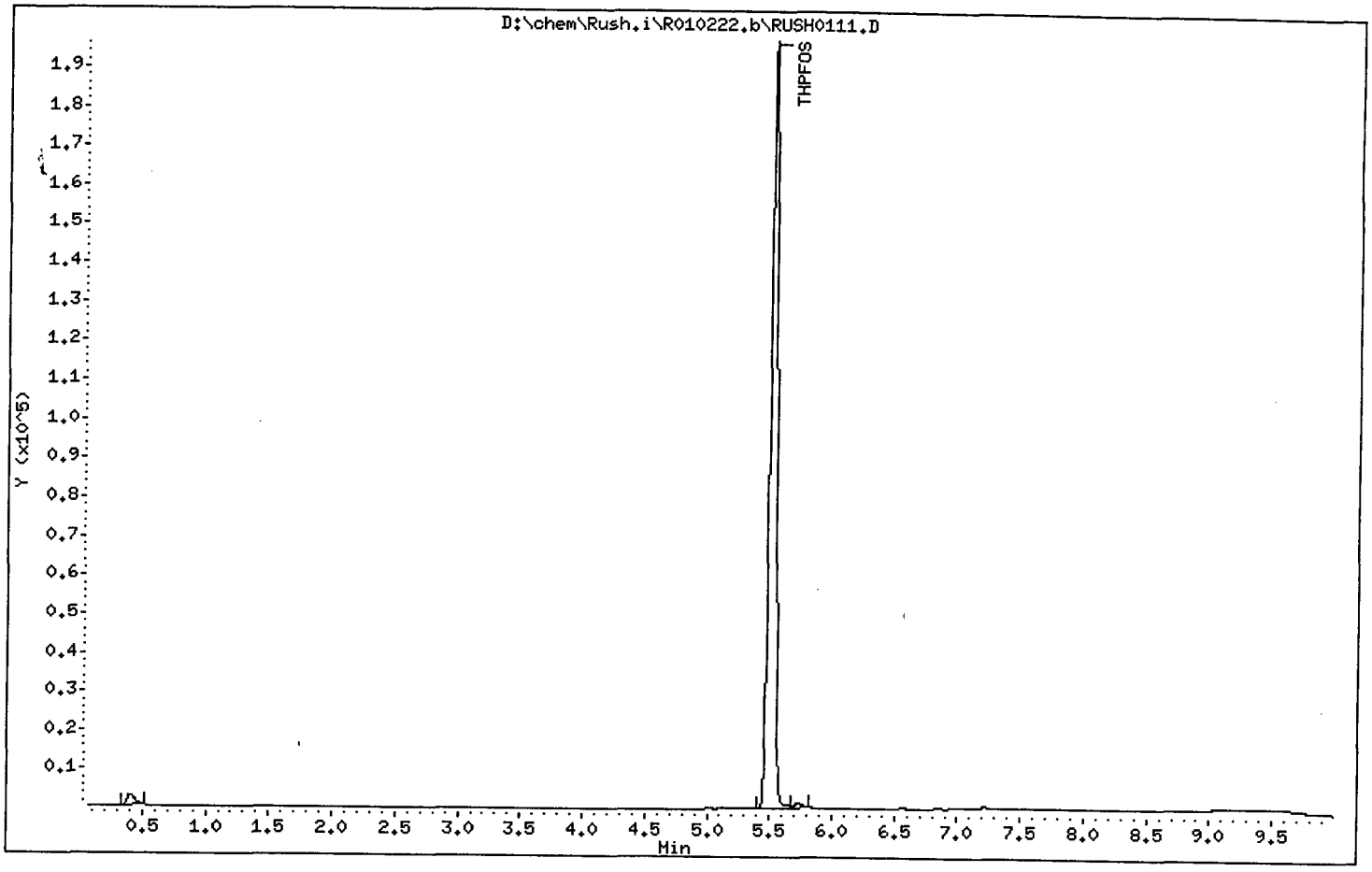
3M Environmental Laboratory

Data file : D:\chem\Rush.i\R010222.b\RUSH0111.D
Lab Smp Id:
Inj Date : 23-FEB-2001 13:27
Operator : KLT/MLA Inst ID: Rush.i
Smp Info : 1311-4093-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010222.b\R010222t.m
Meth Date : 09-Mar-2001 09:15 terrell Quant Type: ISTD
Cal Date : 22-FEB-2001 22:45 Cal File: RUSH0032.D
Als bottle: 68
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

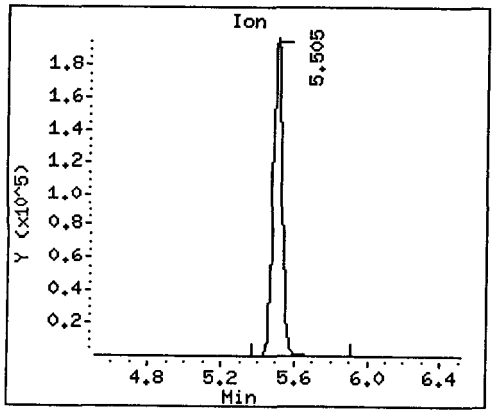
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.504	5.512	(1.000)	713216	249.300	
2 PFOS	499	Compound Not Detected.					

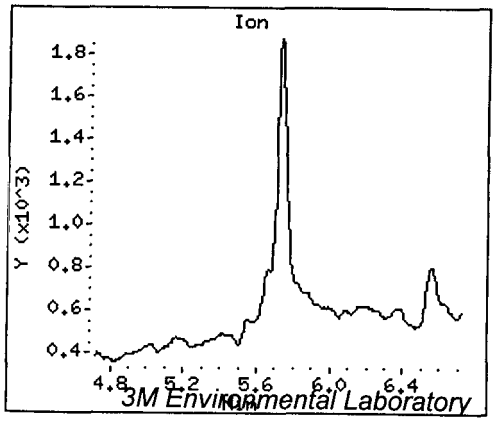
Data File: D:\chem\Rush.i\R010222.b\RUSH0111.D



* 1 THPFOS



2 PFOS (Undetected)



3M Environmental Laboratory

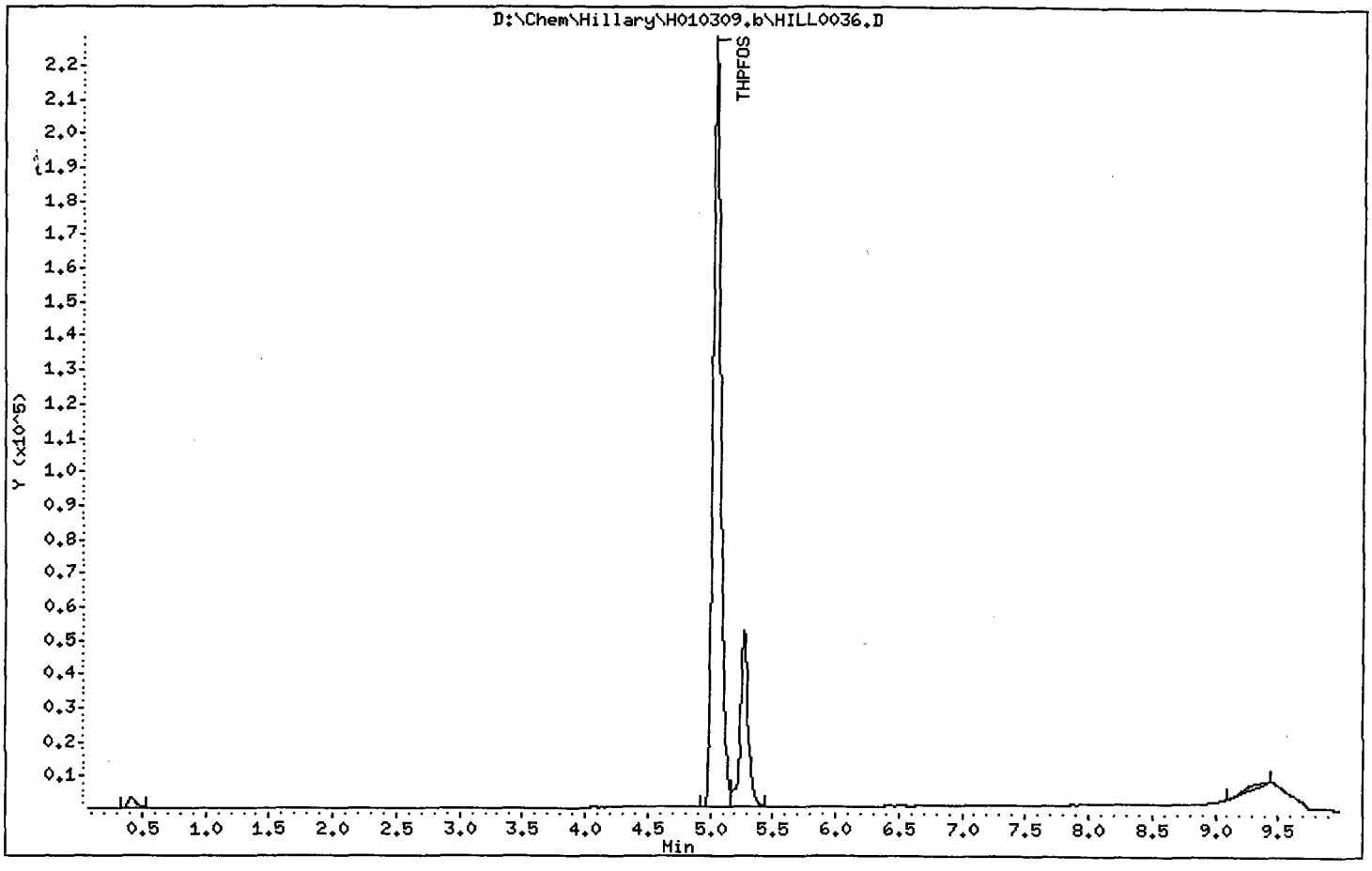
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010309.b\HILL0036.D
Lab Smp Id: 1311-4103-S1
Inj Date : 09-MAR-2001 22:29
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

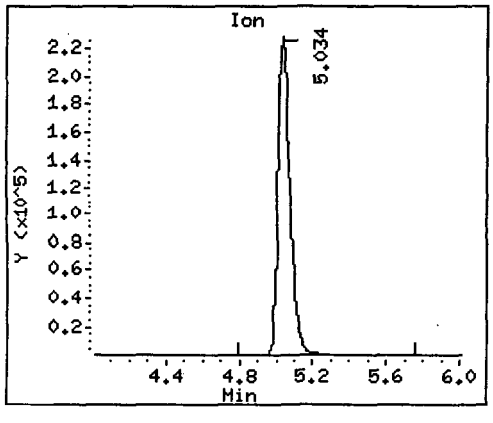
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/mL)
* 1 THPFOS	427	5.034	5.009	(1.000)	1056178	254.000	
2 PFOS	499	5.265	5.233	(1.046)	234470	8.01228	8.01

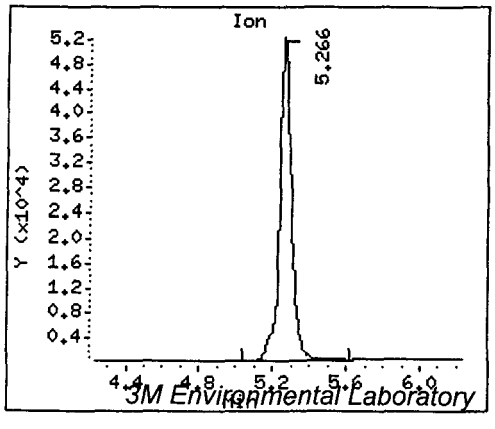
Data File: D:\Chem\Hillary\H010309.b\HILL0036.D



× 1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010309.b\HILL0037.D
Report Date: 28-Mar-2001 09:00

3M Environmental Laboratory

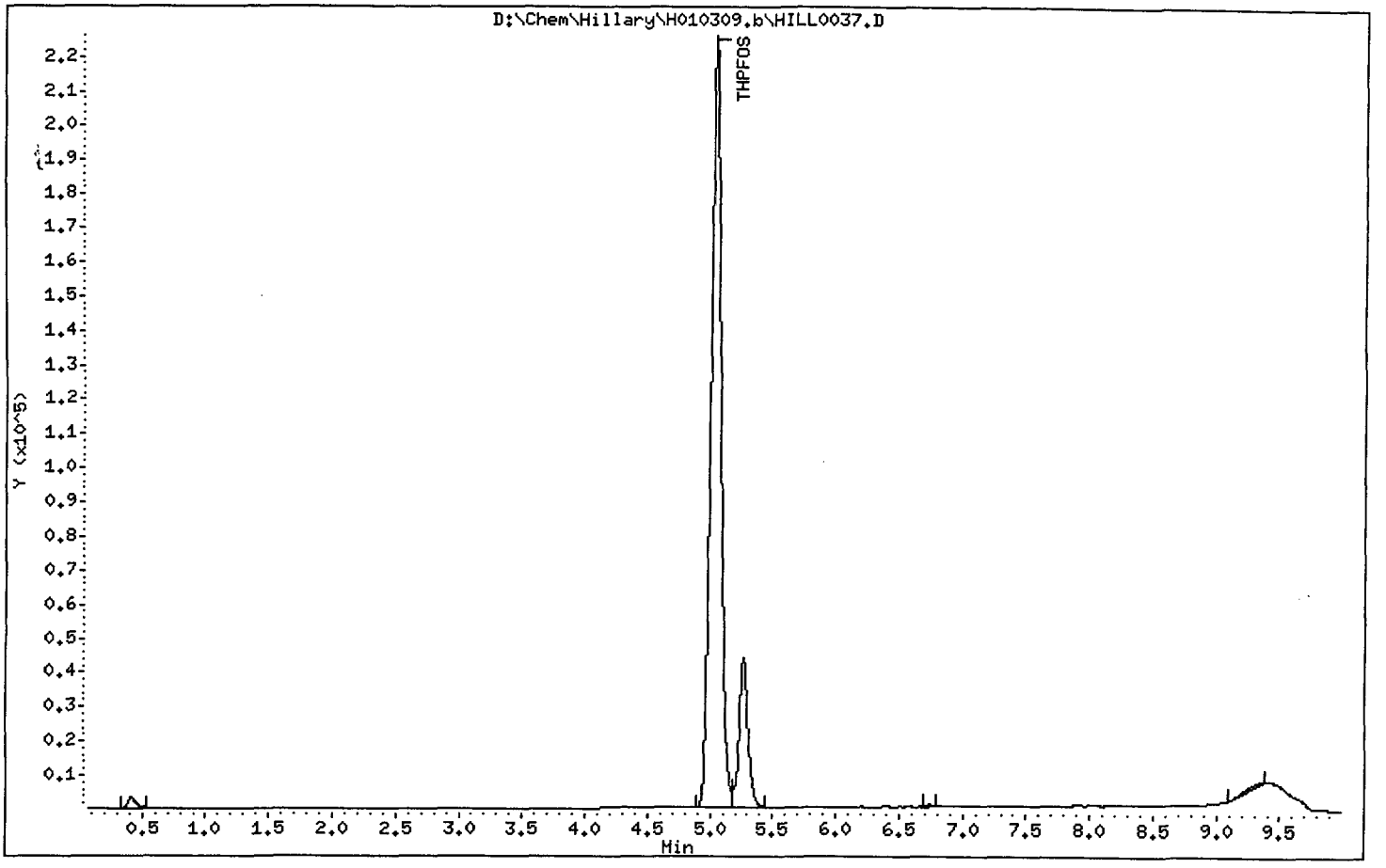
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010309.b\HILL0037.D
Lab Smp Id: 1311-4104-S1
Inj Date : 09-MAR-2001 22:40
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

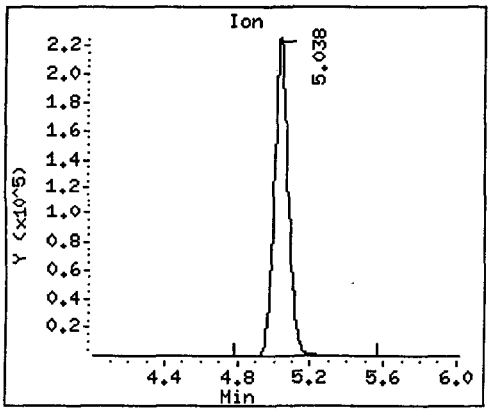
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/mL)
* 1 THPFOS	427	5.037	5.009	(1.000)	1221819	254.000	
2 PFOS	499	5.268	5.233	(1.046)	215844	6.16960	6.17

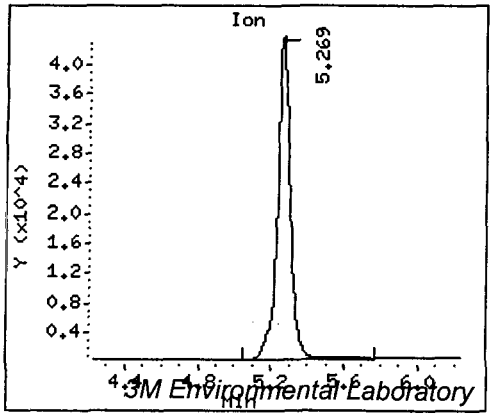
Data File: D:\Chem\Hillary\H010309.b\HILL0037.D



* 1 THPFOS



2 PFOS



3M Environmental Laboratory

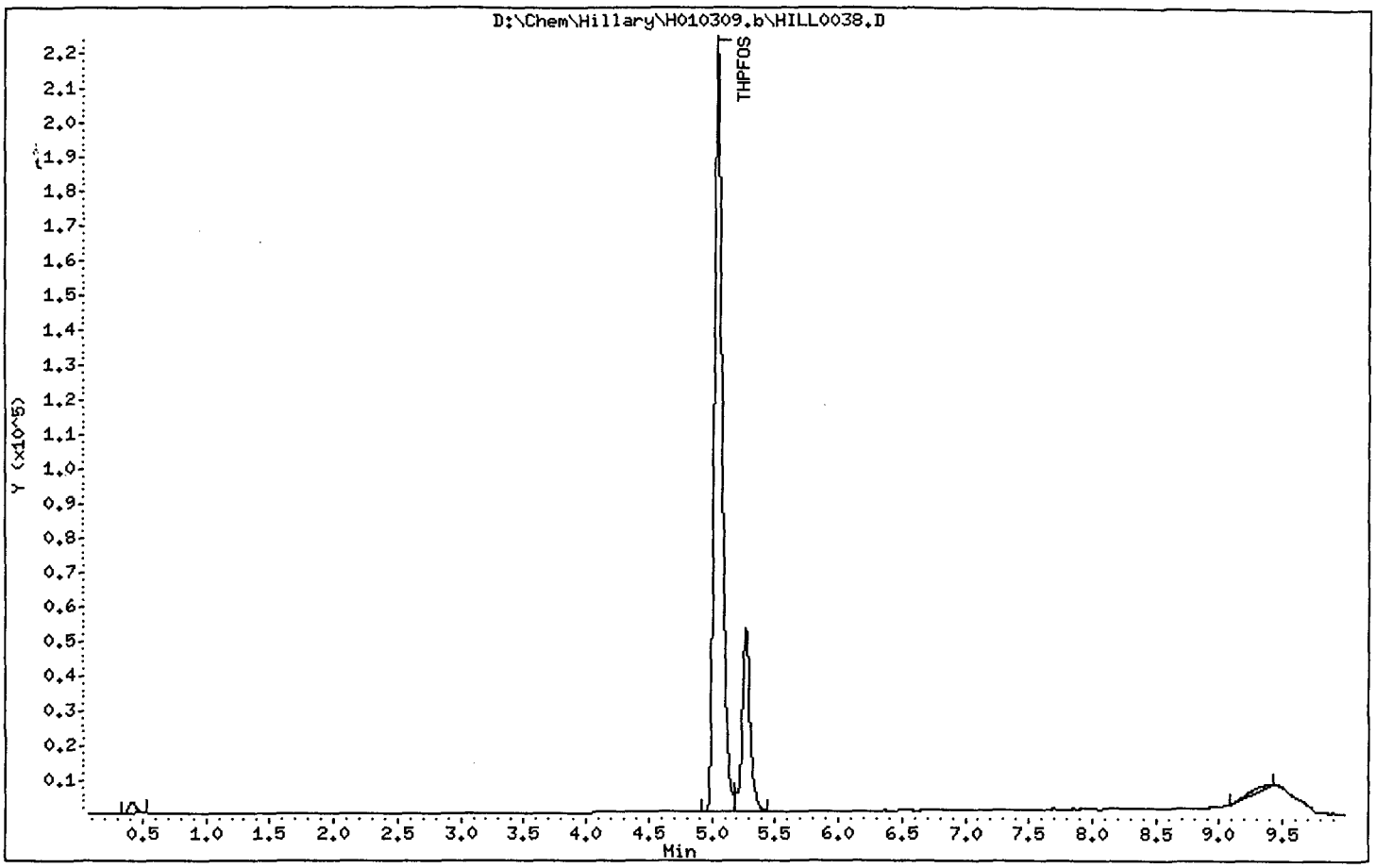
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010309.b\HILL0038.D
Lab Smp Id: 1311-4105-S1
Inj Date : 09-MAR-2001 22:51
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

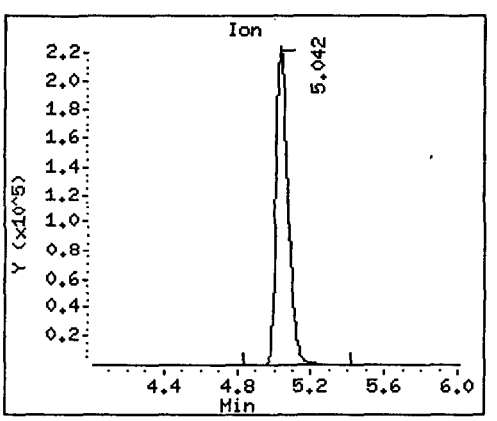
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/mL)
* 1 THPFOS	427	5.042	5.009	(1.000)	1028599	254.000	
2 PFOS	499	5.266	5.233	(1.044)	237536	8.37553	8.38

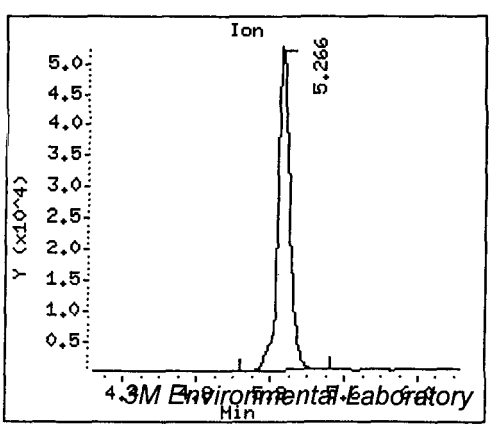
Data File: D:\Chem\Hillary\H010309.b\HILL0038.D



× 1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010309.b\HILL0039.D
Report Date: 28-Mar-2001 09:00

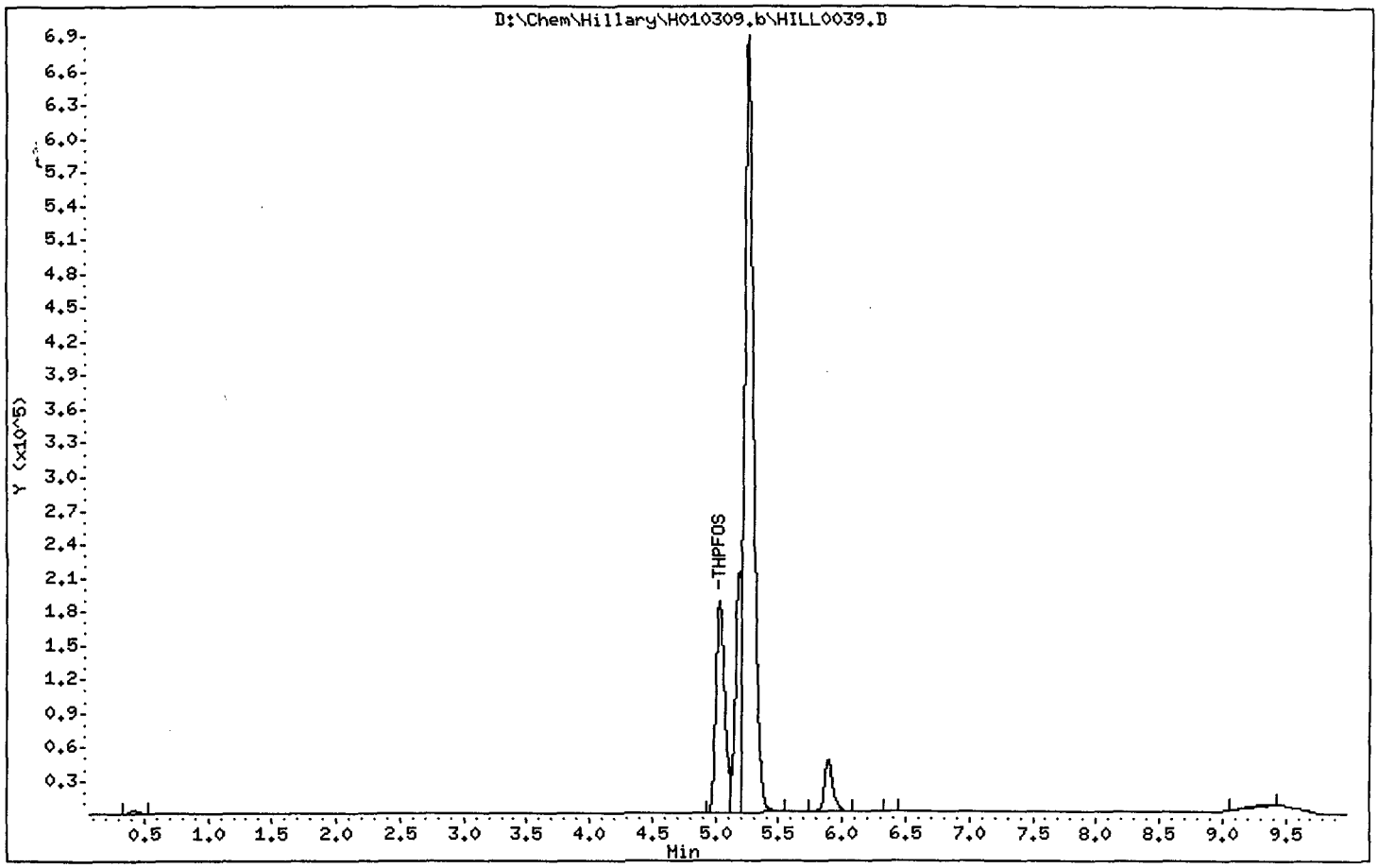
3M Environmental Laboratory

E00-1311 PFOS Adsorb/Desorb

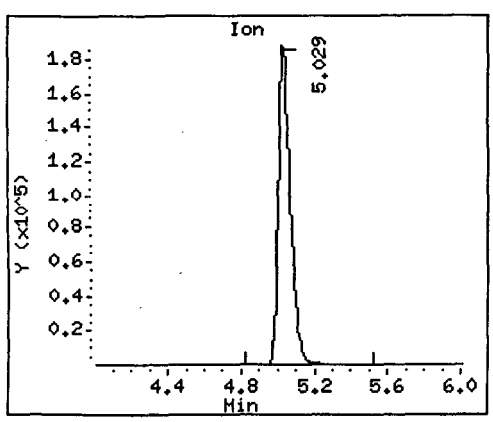
Data file : D:\Chem\Hillary\H010309.b\HILL0039.D
Lab Smp Id: 1311-4105MS-S1
Inj Date : 09-MAR-2001 23:03
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

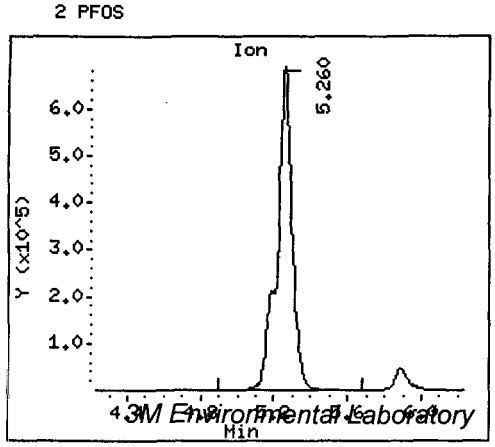
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/mL)
* 1 THPFOS	427	5.029	5.009	(1.000)	874849	254.000	
2 PFOS	499	5.260	5.233	(1.046)	3963142	190.967	191



* 1 THPFOS



2 PFOS



3M Environmental Laboratory

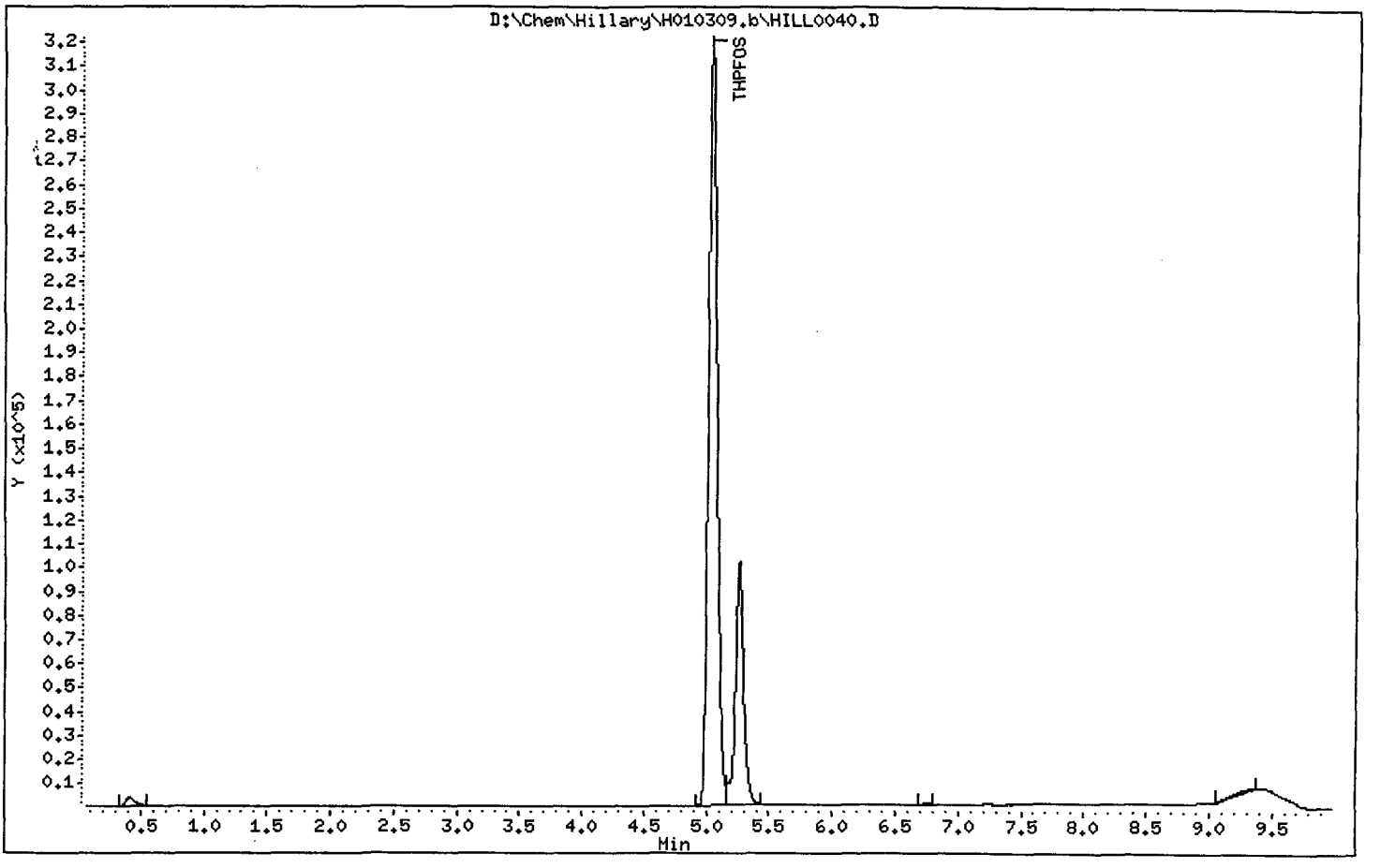
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010309.b\HILL0040.D
Lab Smp Id: 1311-4106-S1
Inj Date : 09-MAR-2001 23:14
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

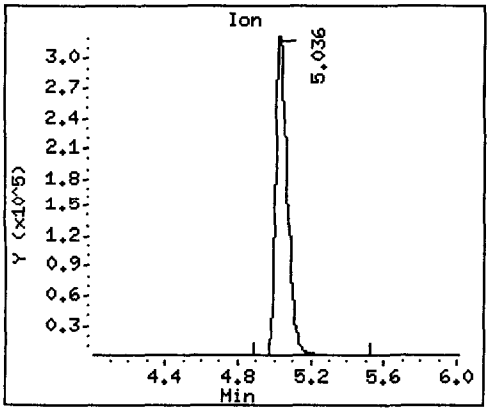
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/mL)
* 1 THPFOS	427	5.036	5.009	(1.000)	1468017	254.000	
2 PFOS	499	5.260	5.233	(1.045)	452939	11.5341	11.5

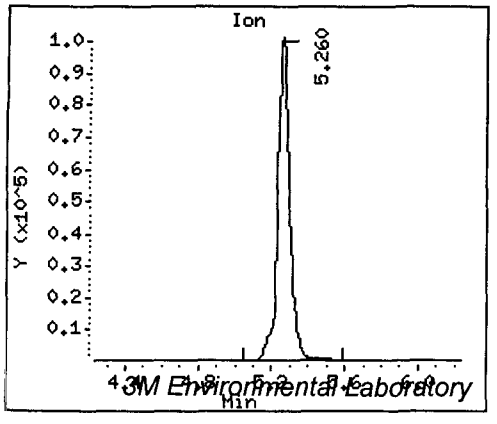
Data File: D:\Chem\Hillary\H010309.b\HILL0040.D



× 1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010309.b\HILL0041.D
Report Date: 28-Mar-2001 09:00

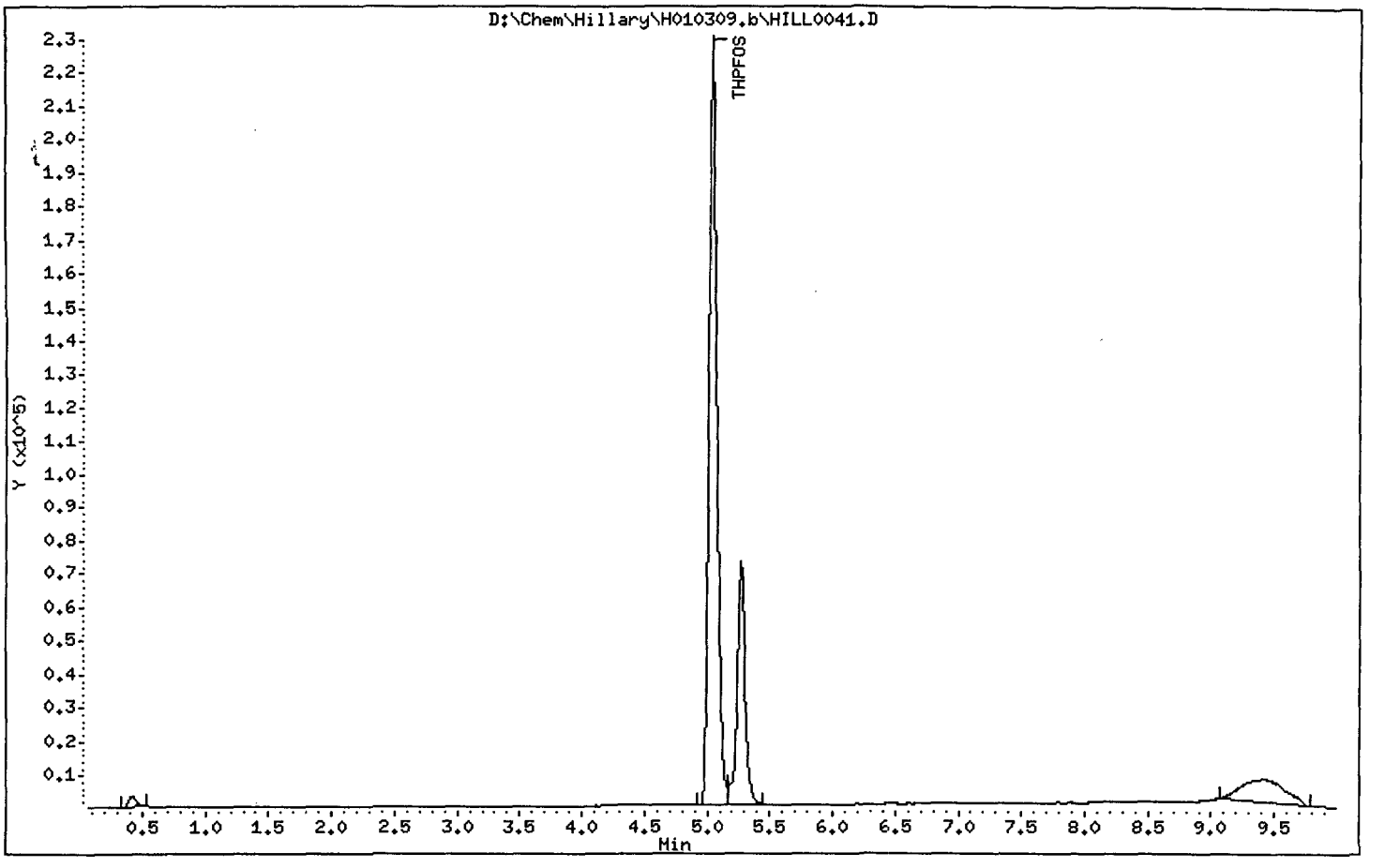
3M Environmental Laboratory

E00-1311 PFOS Adsorb/Desorb

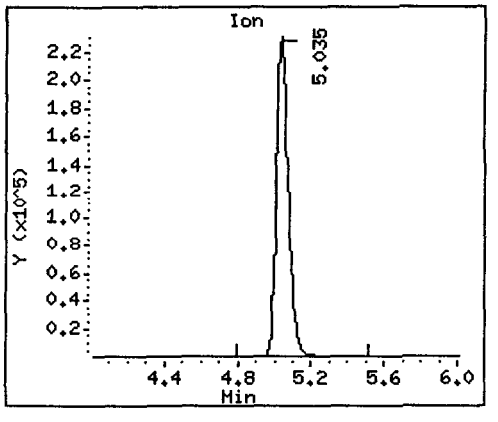
Data file : D:\Chem\Hillary\H010309.b\HILL0041.D
Lab Smp Id: 1311-4107-S1
Inj Date : 09-MAR-2001 23:25
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

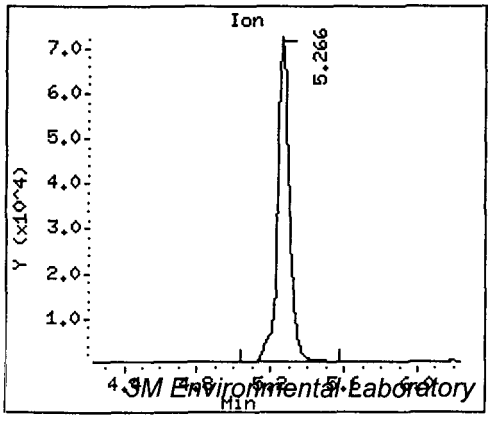
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/mL)
* 1 THPFOS	427	5.034	5.009	(1.000)	1055707	254.000	
2 PFOS	499	5.265	5.233	(1.046)	325164	11.5124	11.5



* 1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010309.b\HILL0042.D
Report Date: 28-Mar-2001 09:00

3M Environmental Laboratory

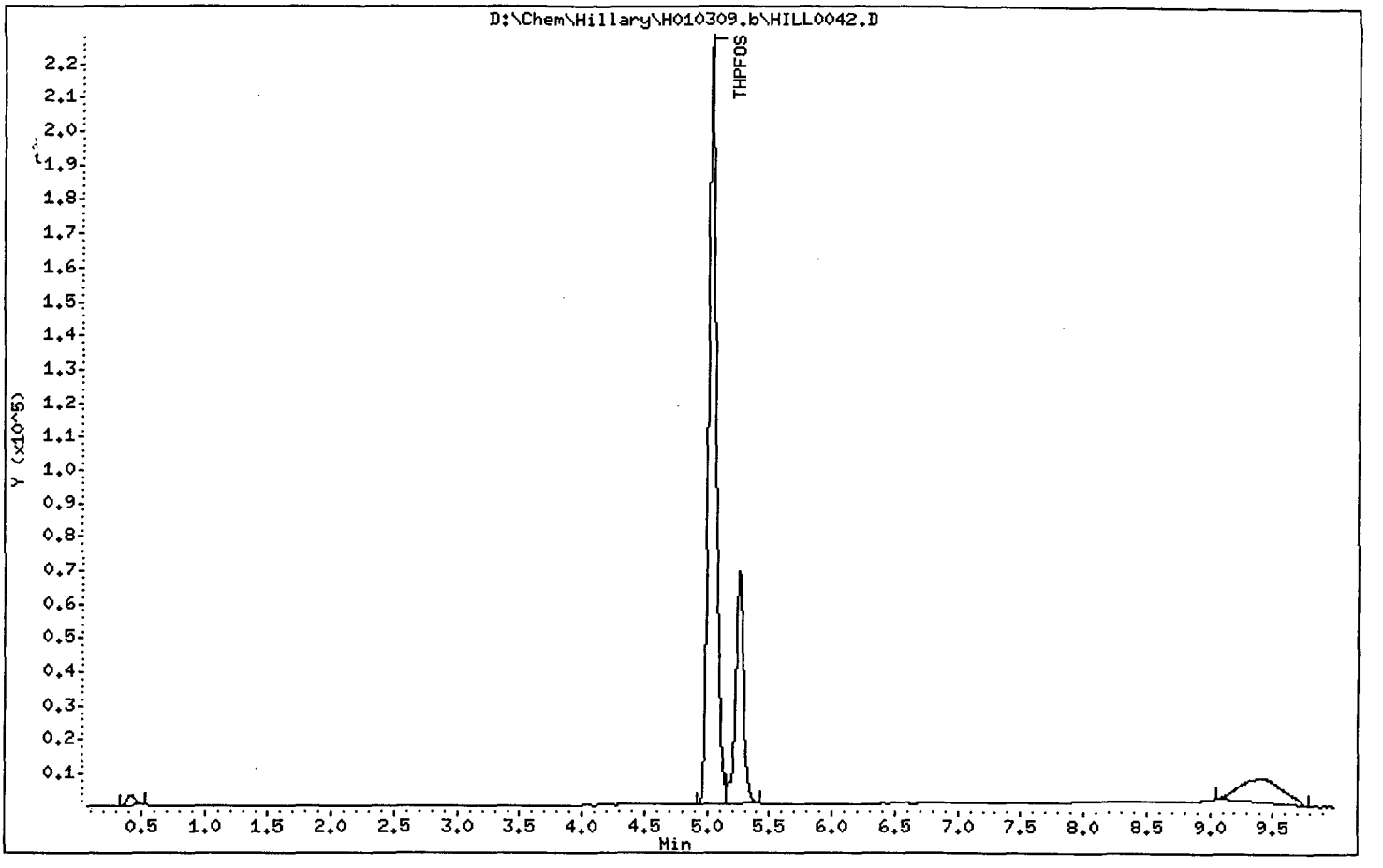
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010309.b\HILL0042.D
Lab Smp Id: 1311-4108-S1
Inj Date : 09-MAR-2001 23:37
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

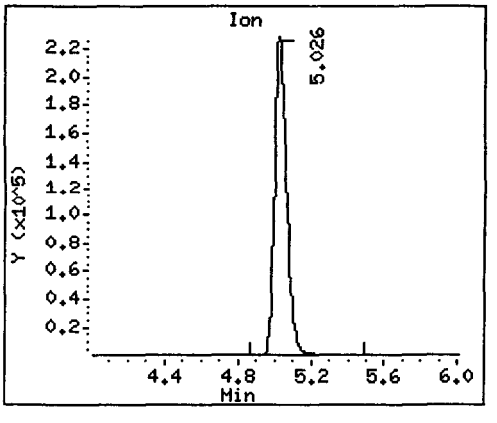
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/mL)
* 1 THPFOS	427	5.026	5.009	(1.000)	1050237	254.000	
2 PFOS	499	5.250	5.233	(1.045)	304848	10.7900	10.8

Data File: D:\Chem\Hillary\H010309.b\HILL0042.D



1 THPFOS



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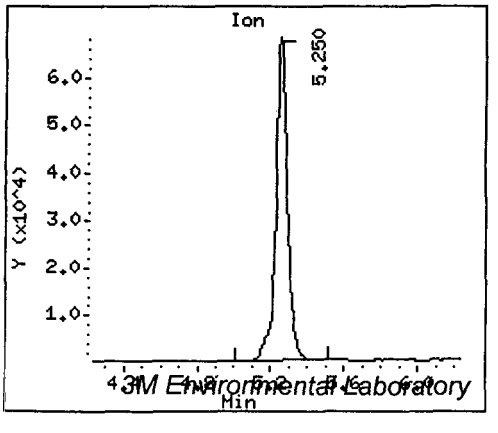


Data File: D:\Chem\Hillary\H010309.b\HILL0043.D
Report Date: 28-Mar-2001 09:00

3M Environmental Laboratory

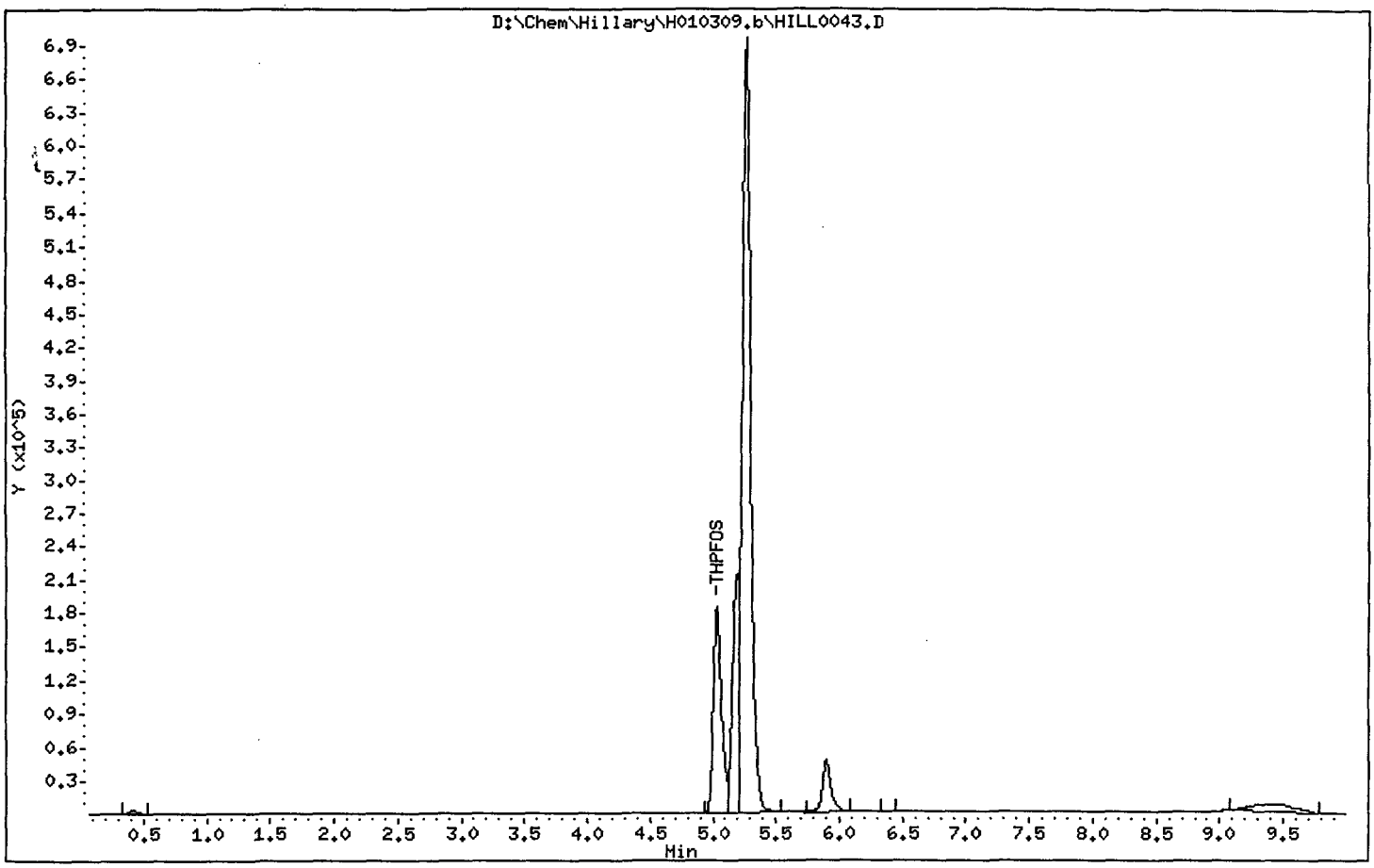
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010309.b\HILL0043.D
Lab Smp Id: 1311-4108MS-S1
Inj Date : 09-MAR-2001 23:48
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

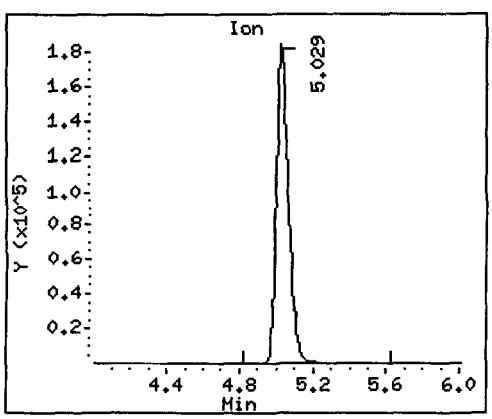
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/mL)
* 1 THPFOS	427	5.028	5.009	(1.000)	865040	254.000	
2 PFOS	499	5.259	5.233	(1.046)	4001498	195.209	195

Data File: D:\Chem\Hillary\H010309.b\HILL0043.D



* 1 THPFOS



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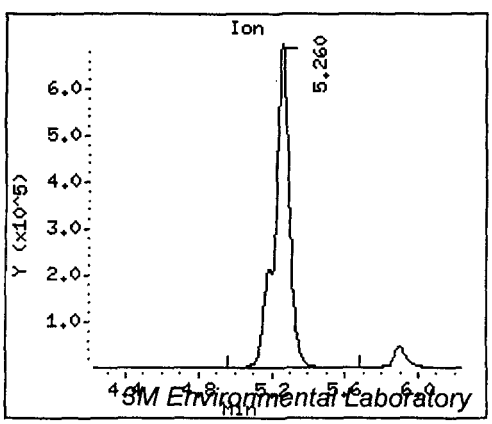


3M Environmental Laboratory

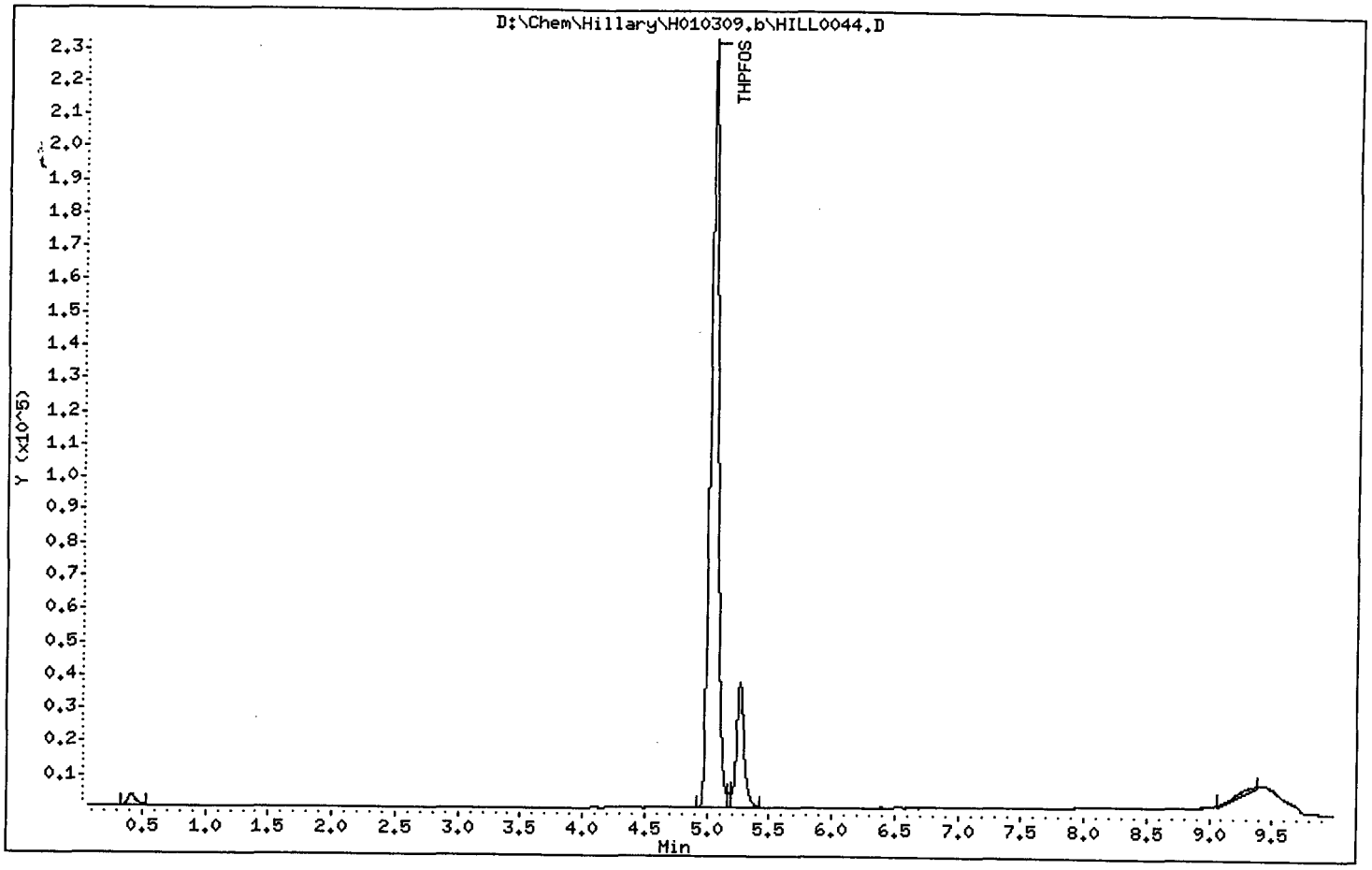
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010309.b\HILL0044.D
Lab Smp Id: 1311-4109-S1
Inj Date : 09-MAR-2001 23:59
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

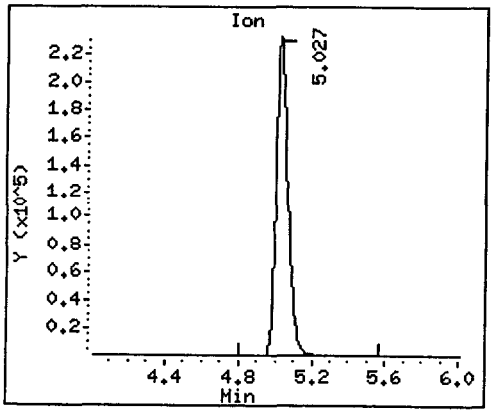
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/mL)
* 1 THPFOS	427	5.027	5.009	(1.000)	1073533	254.000	
2 PFOS	499	5.258	5.233	(1.046)	173898	5.57372	5.57

Data File: D:\Chem\Hillary\H010309.b\HILL0044.D



* 1 THPFOS



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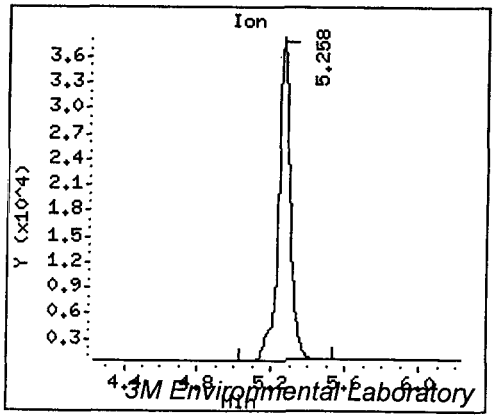


Data File: D:\Chem\Hillary\H010309.b\HILL0045.D
Report Date: 28-Mar-2001 09:00

3M Environmental Laboratory

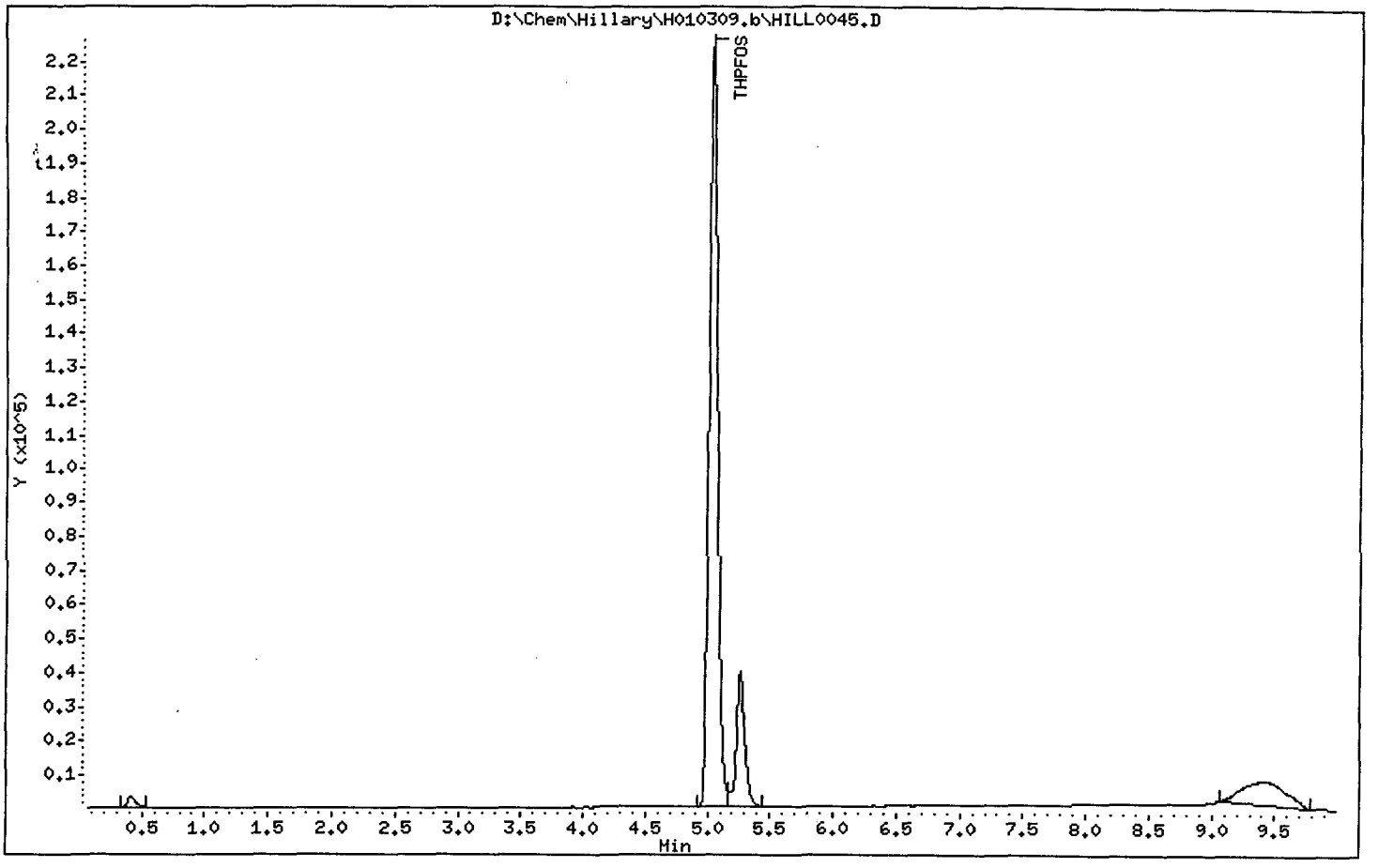
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010309.b\HILL0045.D
Lab Smp Id: 1311-4110-S1
Inj Date : 10-MAR-2001 00:11
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

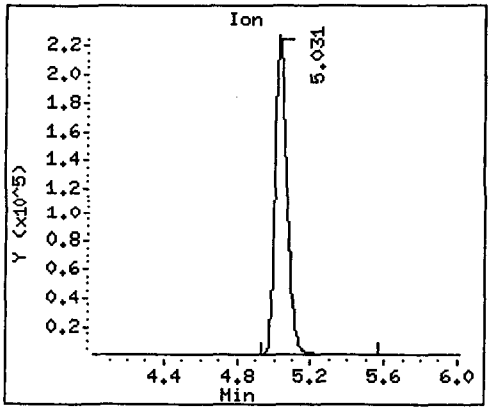
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/mL)
* 1 THPFOS	427	5.031	5.009	(1.000)	1045079	254.000	
2 PFOS	499	5.262	5.233	(1.046)	179135	5.95635	5.96

Data File: D:\Chem\Hillary\H010309.b\HILL0045.D



× 1 THPFOS



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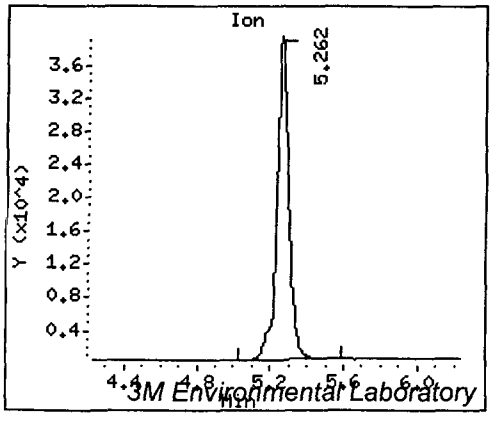


Data File: D:\Chem\Hillary\H010309.b\HILL0050.D
Report Date: 28-Mar-2001 09:00

3M Environmental Laboratory

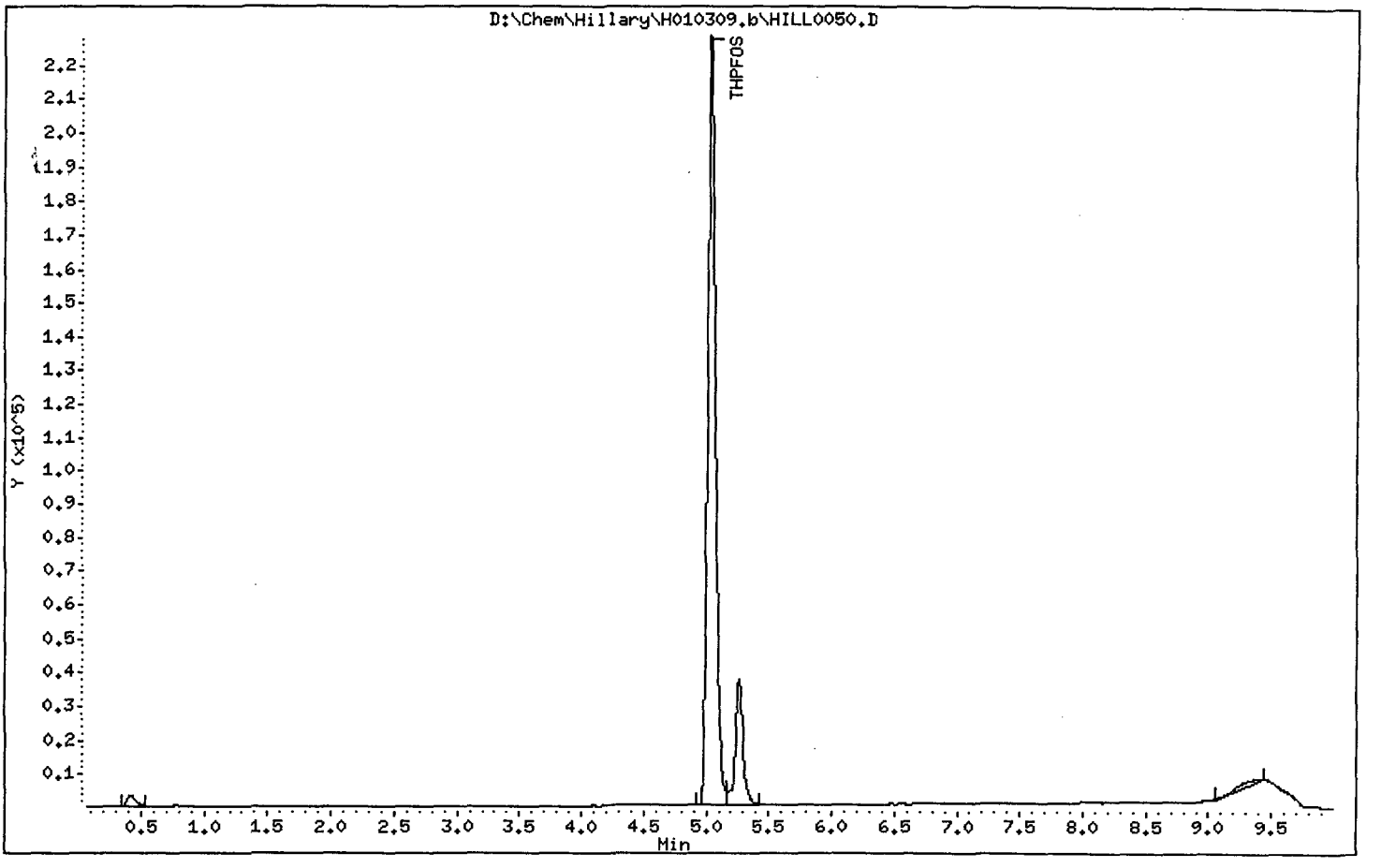
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010309.b\HILL0050.D
Lab Smp Id: 1311-4111-S1
Inj Date : 10-MAR-2001 01:08
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

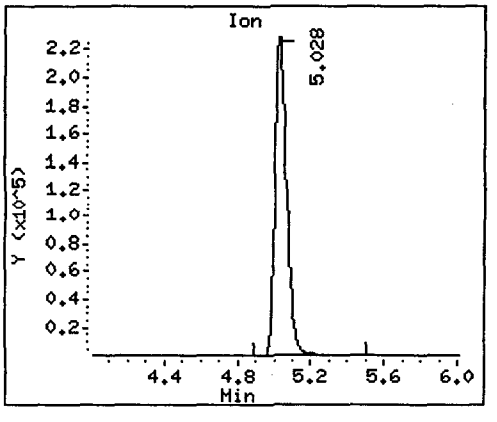
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/mL)
* 1 THPFOS	427	5.027	5.009	(1.000)	1036444	254.000	
2 PFOS	499	5.258	5.233	(1.046)	165195	5.46812	5.47

Data File: D:\Chem\Hillary\H010309.b\HILL0050.D



× 1 THPFOS



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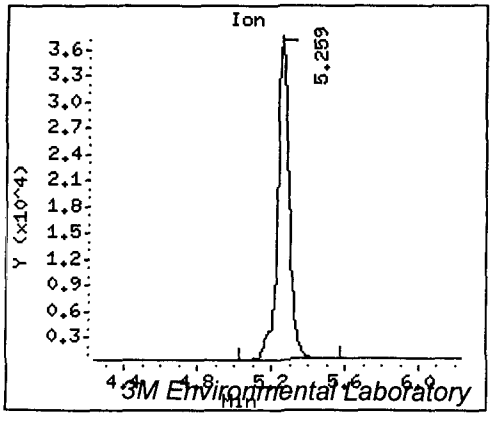


Data File: D:\Chem\Hillary\H010309.b\HILL0051.D
Report Date: 28-Mar-2001 09:00

3M Environmental Laboratory

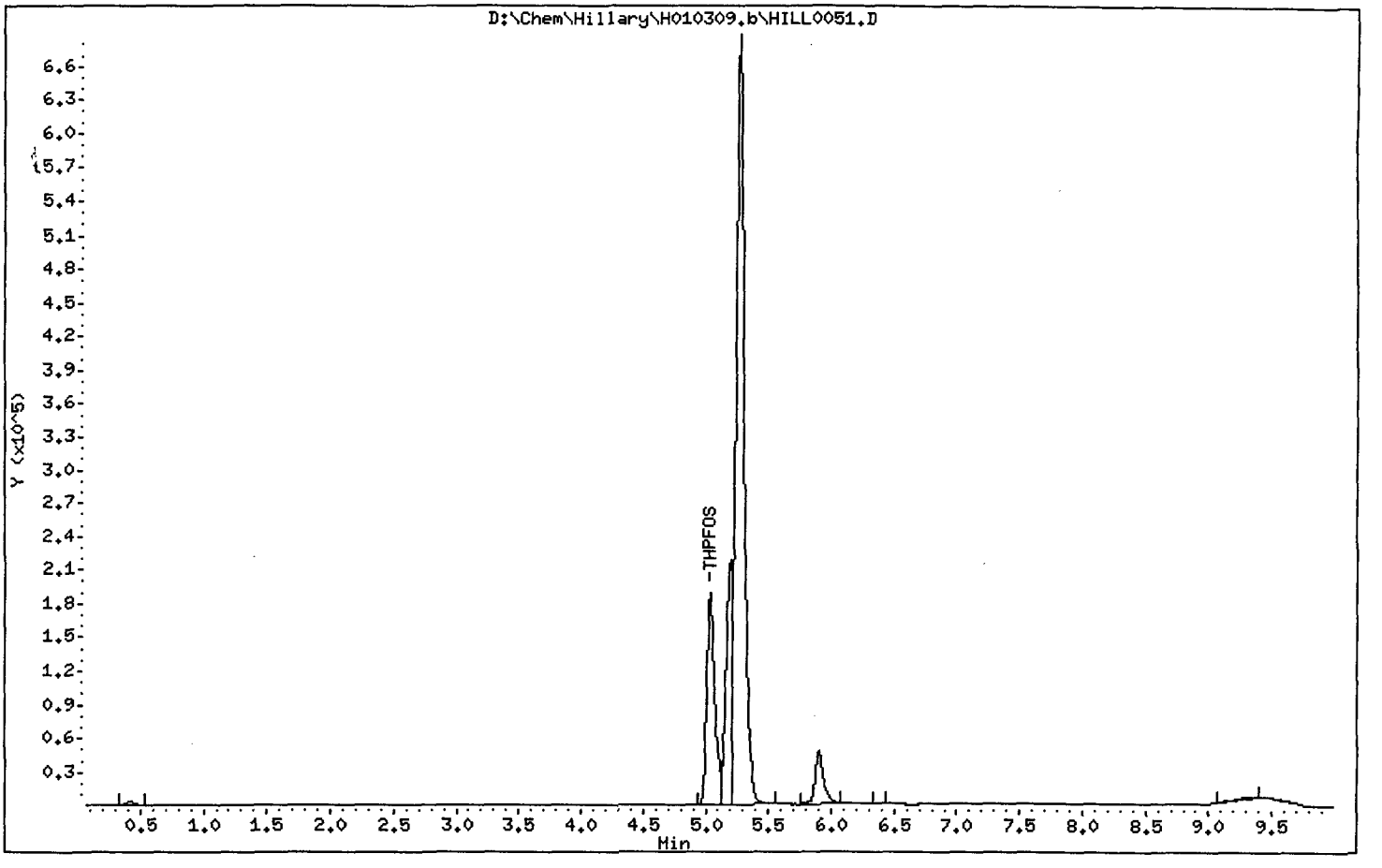
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010309.b\HILL0051.D
Lab Smp Id: 1311-4111MS-S1
Inj Date : 10-MAR-2001 01:19
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

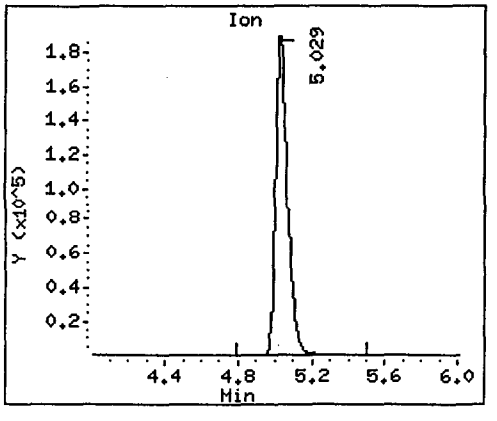
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/mL)
* 1 THPFOS	427	5.028	5.009	(1.000)	869342	254.000	
2 PFOS	499	5.259	5.233	(1.046)	3920789	190.081	190

Data File: D:\Chem\Hillary\H010309.b\HILL0051.D



× 1 THPFOS



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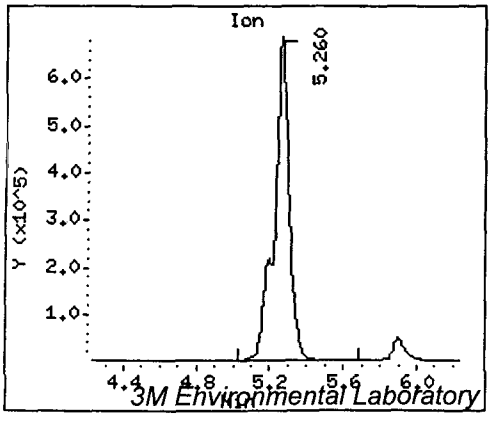


Data File: D:\Chem\Hillary\H010309.b\HILL0052.D
Report Date: 28-Mar-2001 09:00

3M Environmental Laboratory

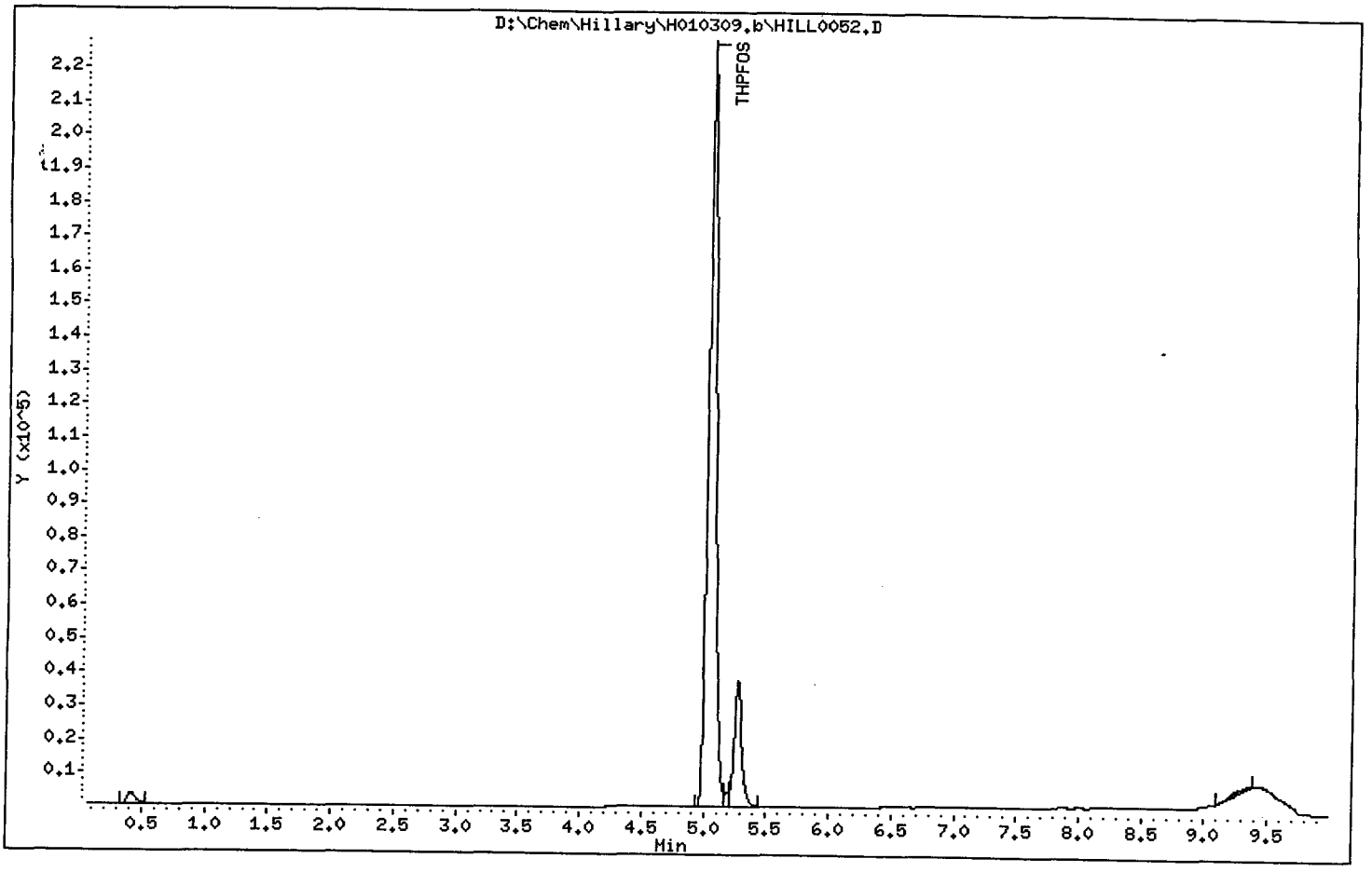
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010309.b\HILL0052.D
Lab Smp Id: 1311-4112-S1
Inj Date : 10-MAR-2001 01:30
Operator : KLT Inst ID: hillary.i
Smp Info : Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010309.b\H010312.m
Meth Date : 12-Mar-2001 11:10 anderson Quant Type: ISTD
Cal Date : 09-MAR-2001 21:32 Cal File: HILL0031.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

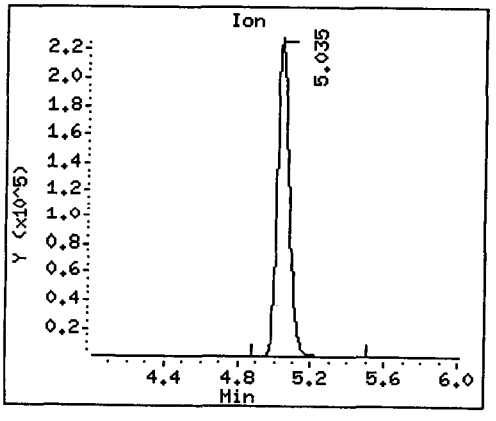
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/mL)
* 1 THPFOS	427	5.034	5.009	(1.000)	1043258	254.000	
2 PFOS	499	5.265	5.233	(1.046)	170915	5.64850	5.65

Data File: D:\Chem\Hillary\H010309.b\HILL0052.D



× 1 THPFOS



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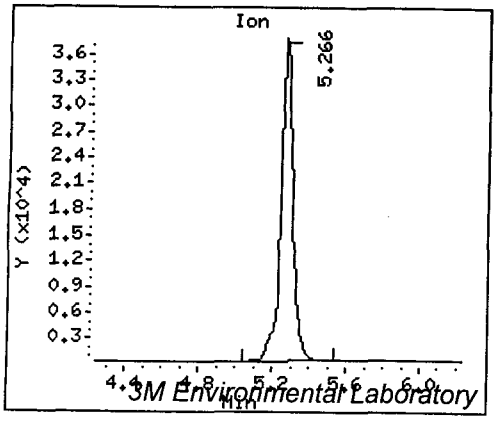


Data File: D:\chem\Rush.i\R010314.b\RUSH0029.D
Report Date: 20-Mar-2001 15:47

3M Environmental Laboratory

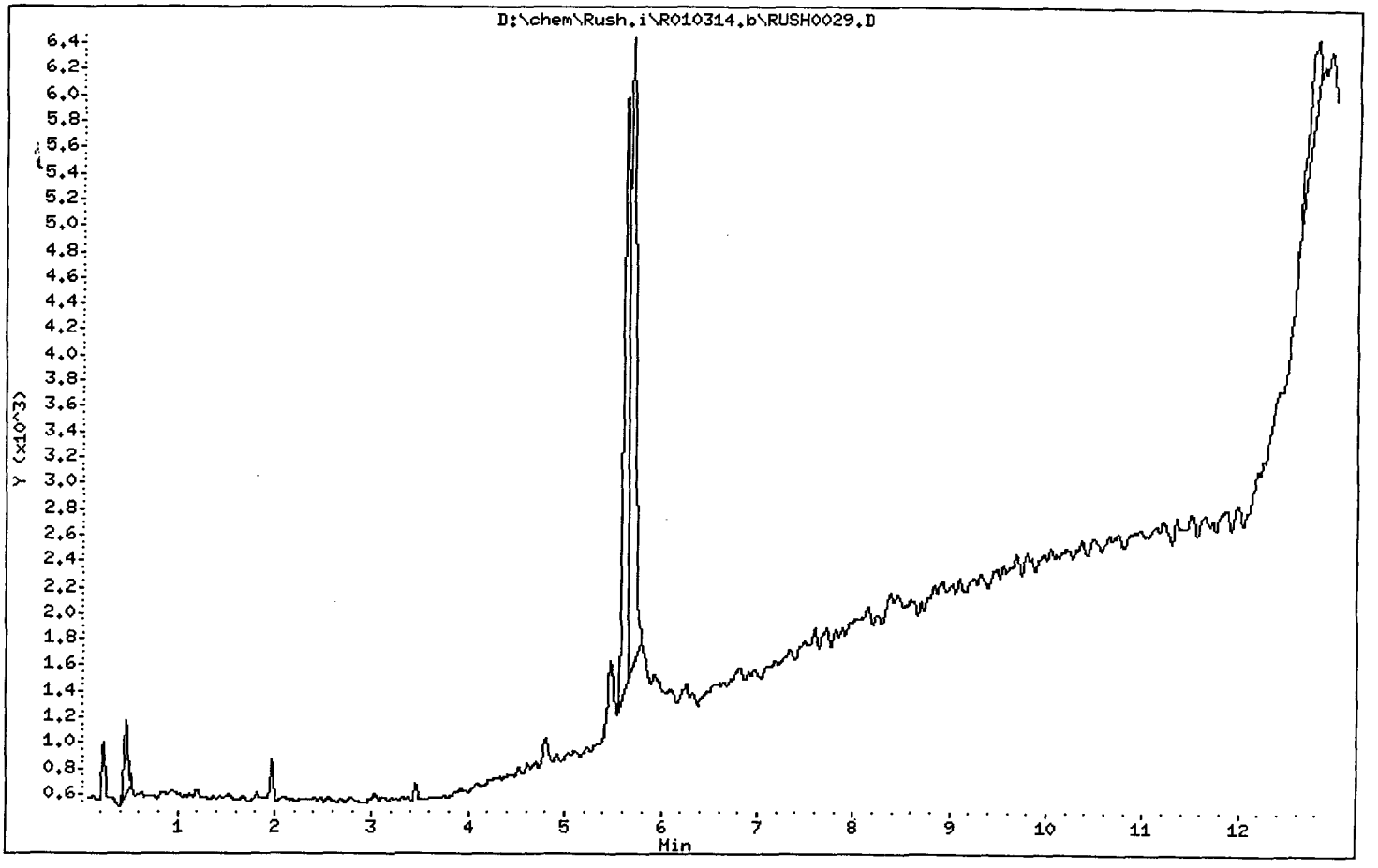
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0029.D
Lab Smp Id:
Inj Date : 14-MAR-2001 23:57
Operator : KLT Inst ID: Rush.i
Smp Info : TN-A 4802 MeOH
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 92
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

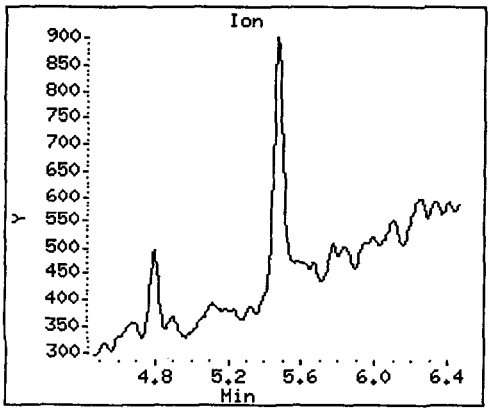
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	Compound Not Detected.					

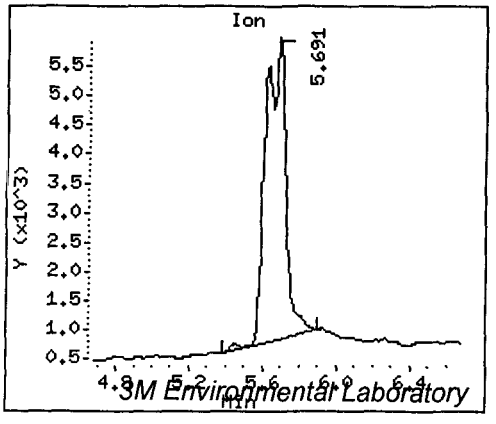
Data File: D:\chem\Rush.i\R010314.b\RUSH0029.D



× 1 THPFOS (Undetected)



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0030.D
Report Date: 20-Mar-2001 15:47

3M Environmental Laboratory

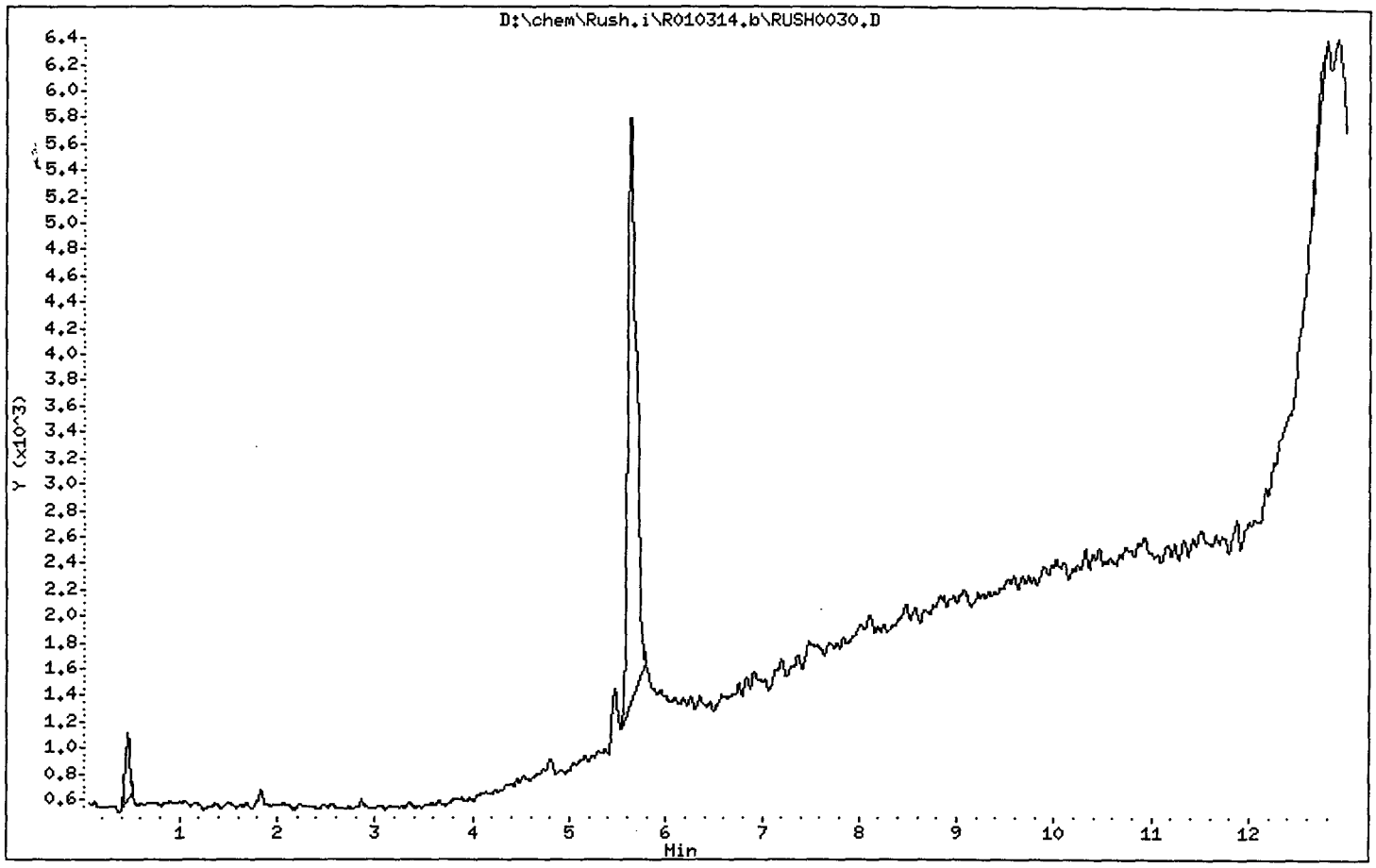
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0030.D
Lab Smp Id:
Inj Date : 15-MAR-2001 00:11
Operator : KLT Inst ID: Rush.i
Smp Info : TN-A 4802 MeOH
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 92
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

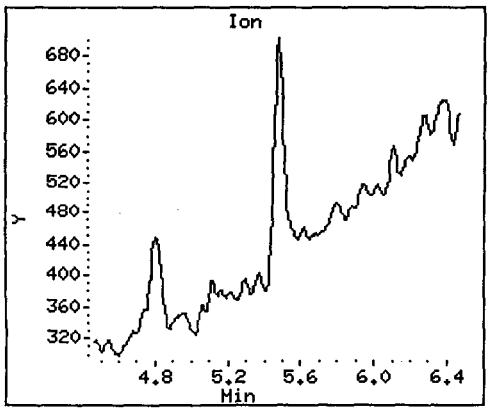
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	Compound Not Detected.					

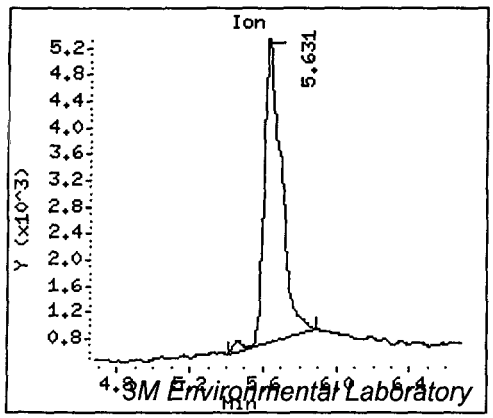
Data File: D:\chem\Rush.i\R010314.b\RUSH0030.D



× 1 THPFOS (Undetected)



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0031.D
Report Date: 20-Mar-2001 15:47

3M Environmental Laboratory

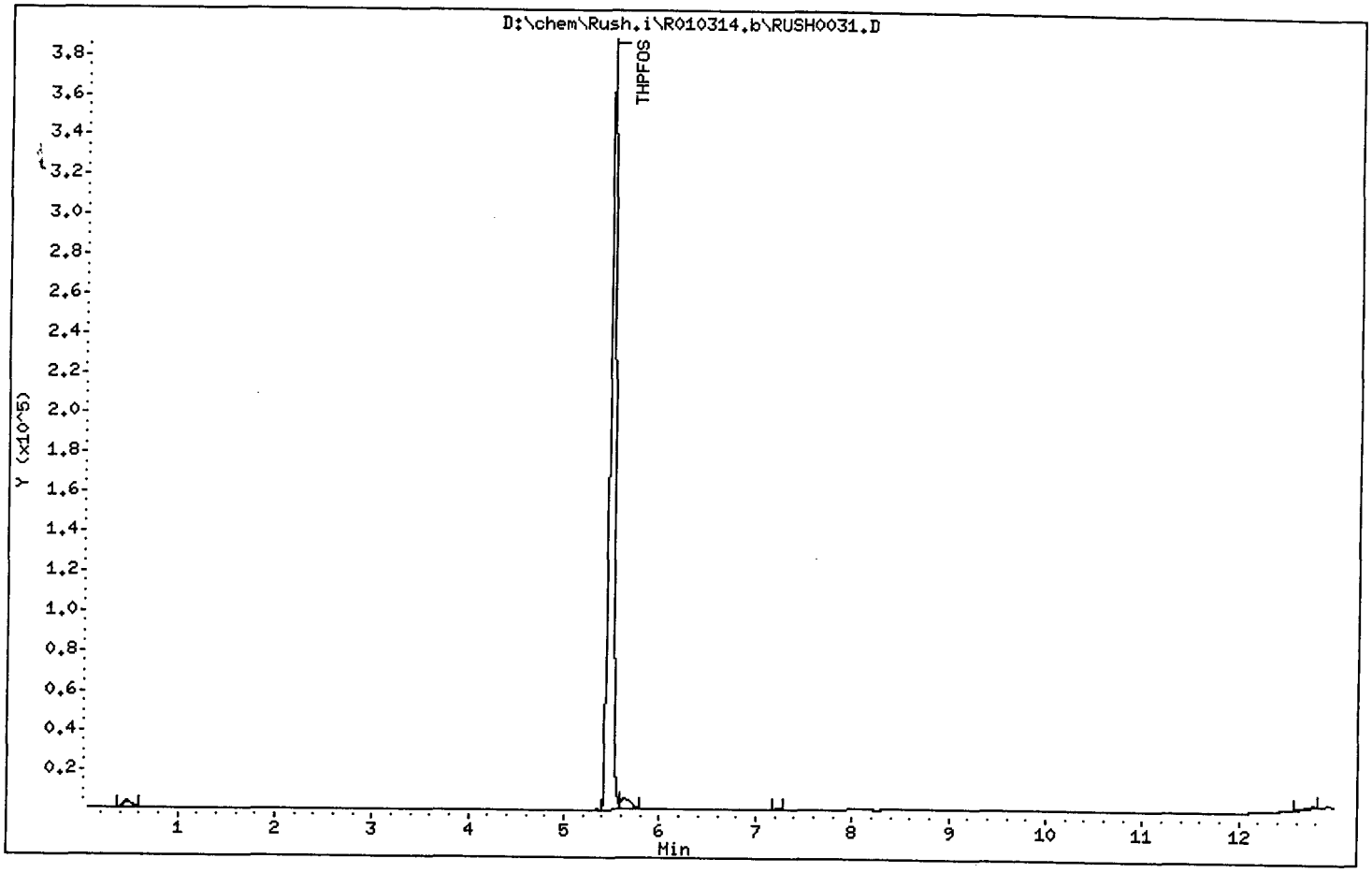
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0031.D
Lab Smp Id:
Inj Date : 15-MAR-2001 00:26
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4121-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

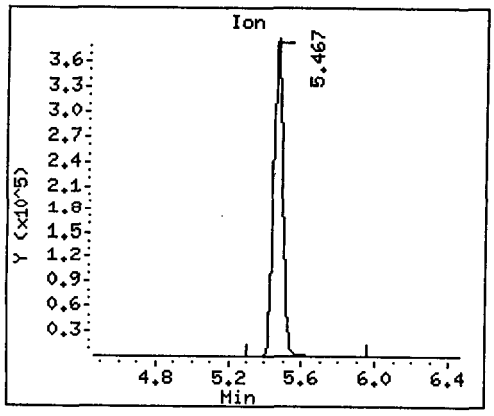
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.467	5.462	(1.000)	1425324	254.000	
2 PFOS	499	Compound Not Detected.					

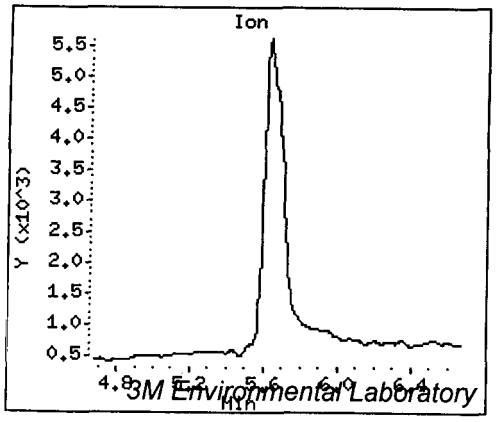
Data File: D:\chem\Rush.i\R010314.b\RUSH0031.D



× 1 THPFOS



2 PFOS (Undetected)



3M Environmental Laboratory

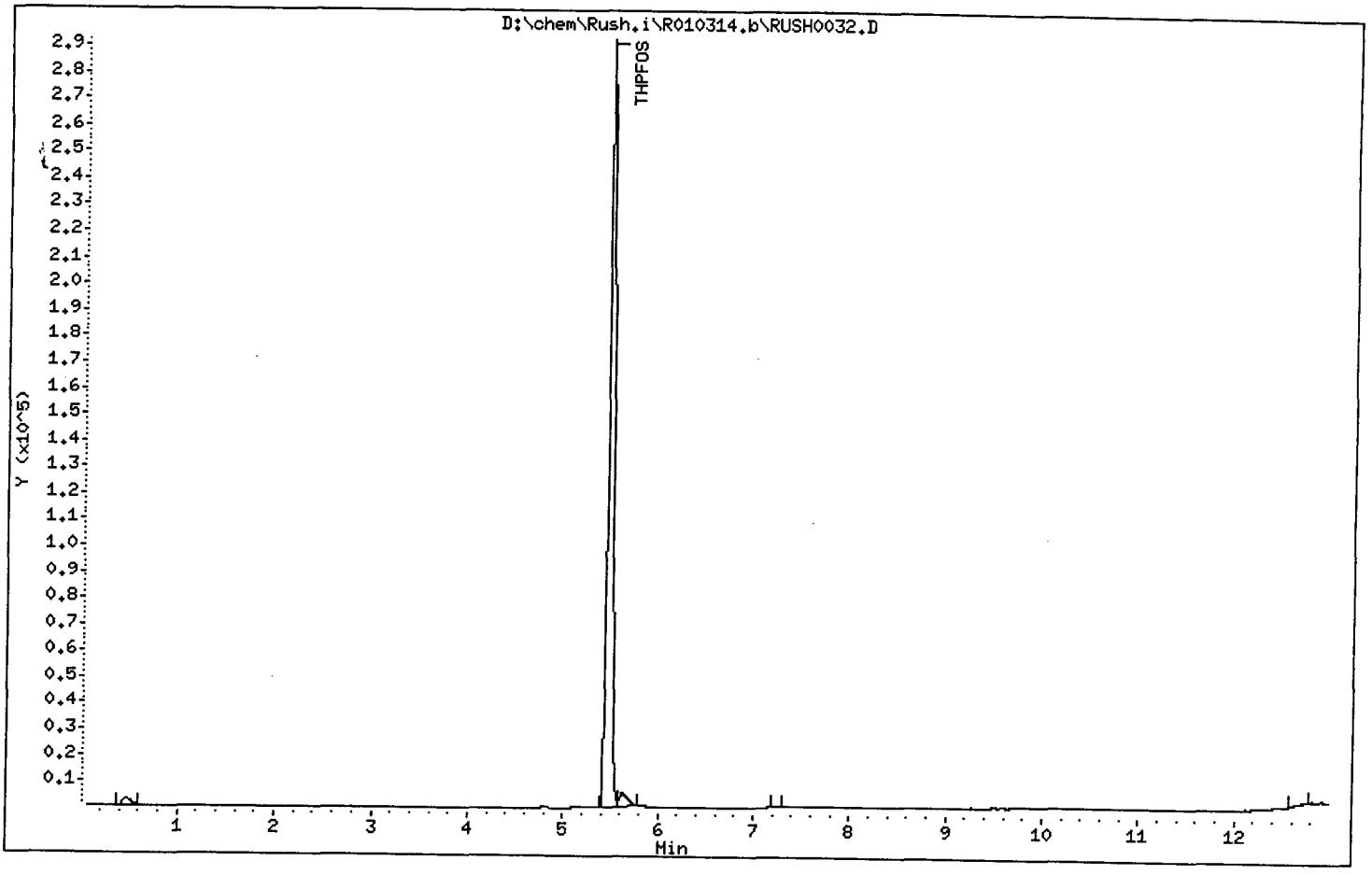
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0032.D
Lab Smp Id:
Inj Date : 15-MAR-2001 00:40
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4122-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

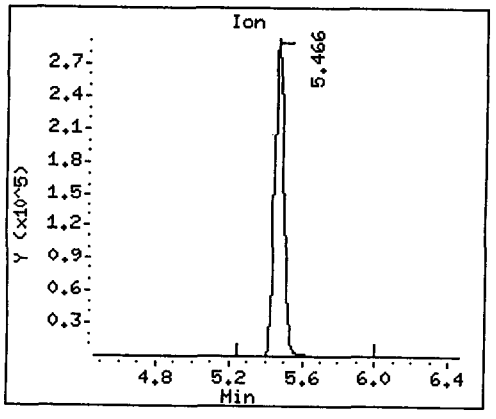
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.466	5.462	(1.000)	1078944	254.000	
2 PFOS	499	Compound Not Detected.					

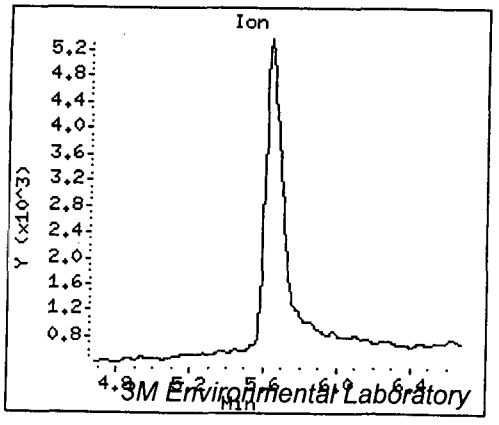
Data File: D:\chem\Rush.i\R010314.b\RUSH0032.D



* 1 THPFOS



2 PFOS (Undetected)



Data File: D:\chem\Rush.i\R010314.b\RUSH0033.D
Report Date: 20-Mar-2001 15:47

3M Environmental Laboratory

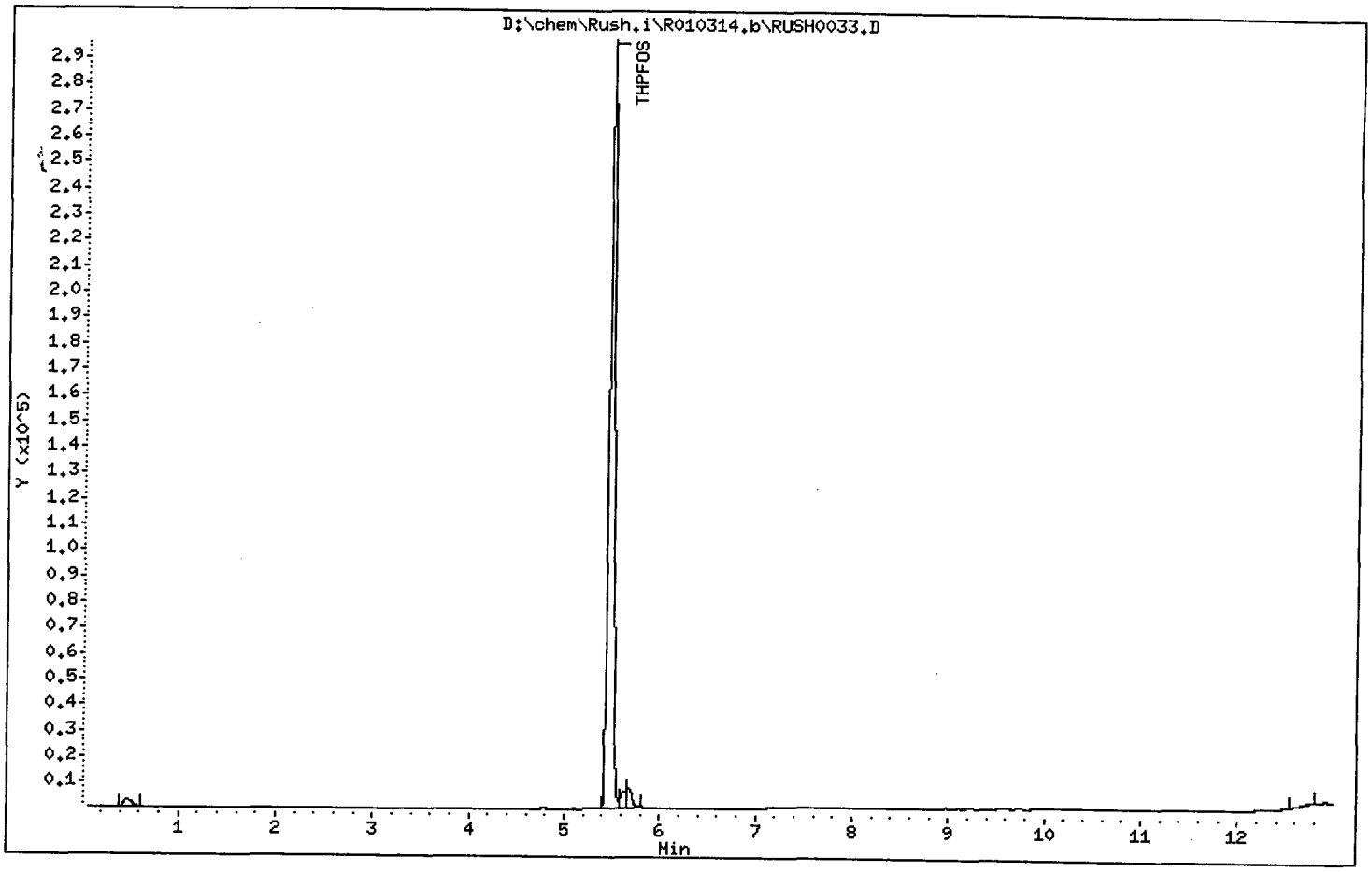
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0033.D
Lab Smp Id:
Inj Date : 15-MAR-2001 00:54
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4123-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

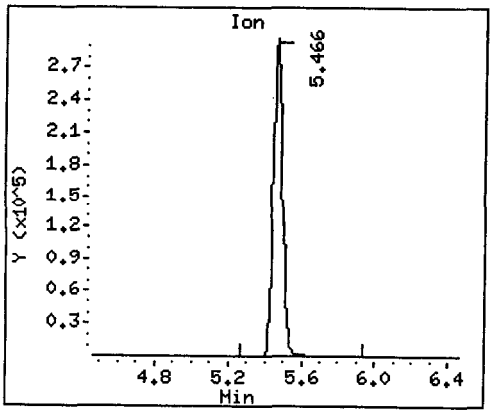
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.466	5.462	(1.000)	1090803	254.000	
2 PFOS	499	Compound Not Detected.					

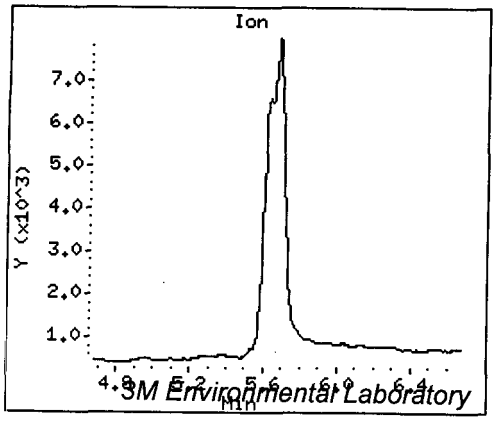
Data File: D:\chem\Rush.i\R010314.b\RUSH0033.D



* 1 THPFOS



2 PFOS (Undetected)



Data File: D:\chem\Rush.i\R010314.b\RUSH0060.D
Report Date: 20-Mar-2001 15:48

3M Environmental Laboratory

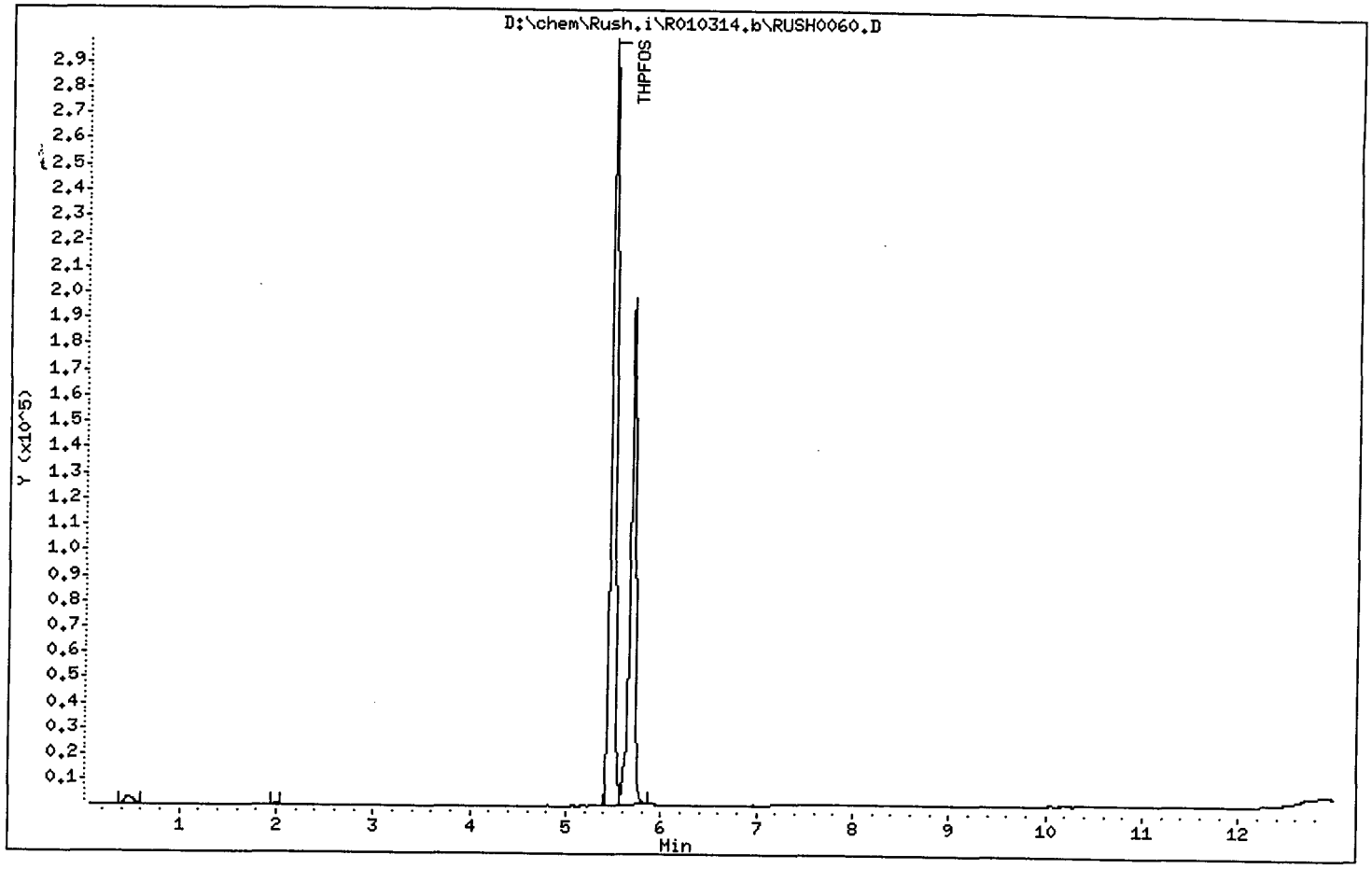
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0060.D
Lab Smp Id:
Inj Date : 15-MAR-2001 07:22
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4137-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

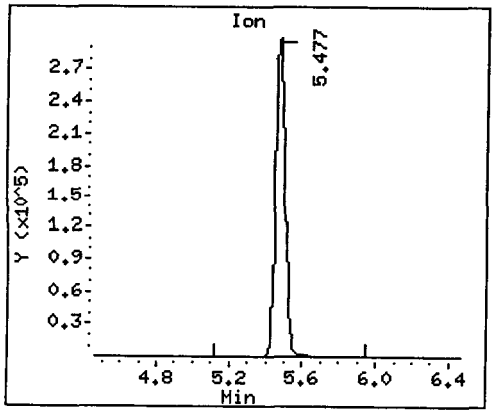
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.477	5.462	(1.000)	1099389	254.000	
2 PFOS	499	5.687	5.679	(1.038)	757619	22.8306	22.8

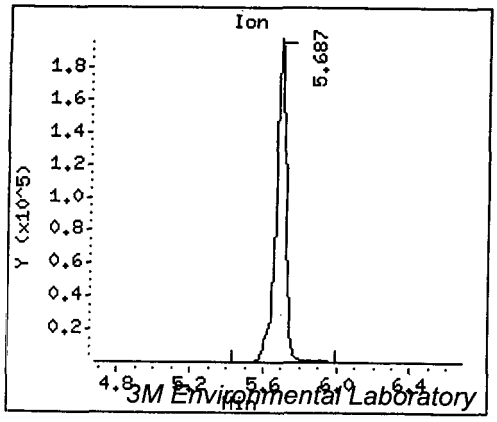
Data File: D:\chem\Rush.i\R010314.b\RUSH0060.D



× 1 THPFOS



2 PFOS



3M Environmental Laboratory

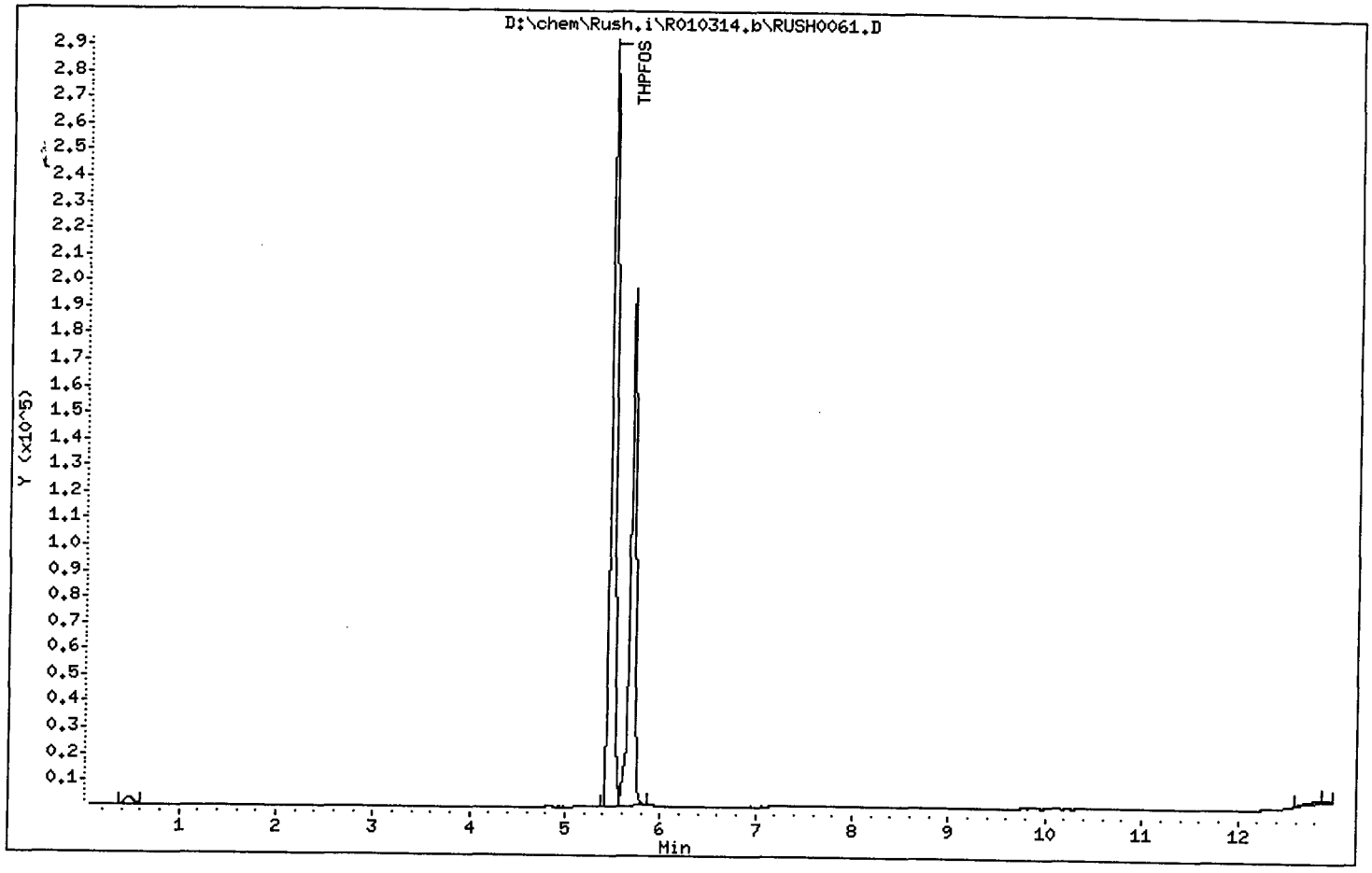
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0061.D
Lab Smp Id:
Inj Date : 15-MAR-2001 07:36
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4138-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

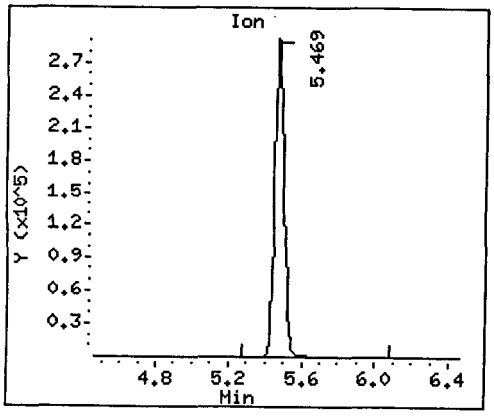
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.469	5.462	(1.000)	1083504	254.000	
2 PFOS	499	5.686	5.679	(1.040)	757822	23.2114	23.2

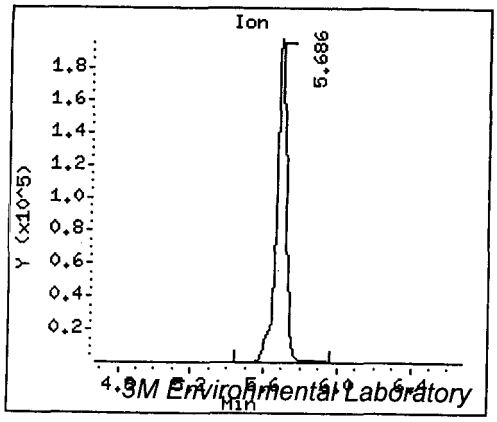
Data File: D:\chem\Rush.i\R010314.b\RUSH0061.D



× 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0062.D
Report Date: 20-Mar-2001 15:48

3M Environmental Laboratory

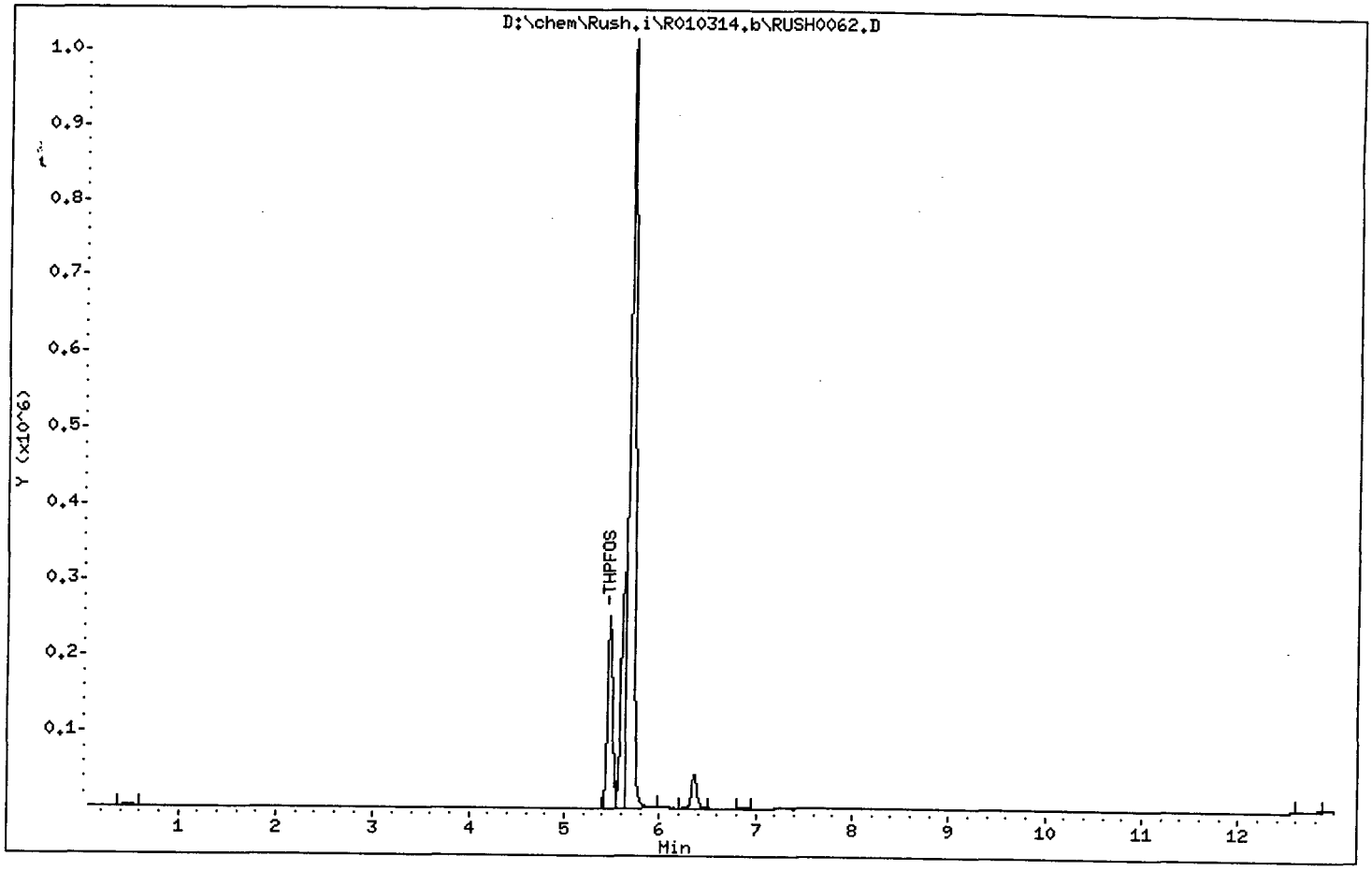
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0062.D
Lab Smp Id:
Inj Date : 15-MAR-2001 07:50
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4138MS-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

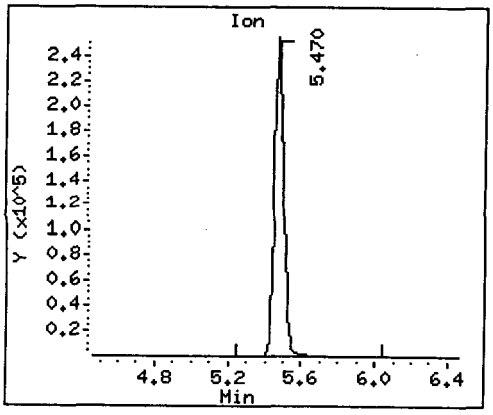
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.470	5.462	(1.000)	947454	254.000	
2 PFOS	499	5.687	5.679	(1.040)	4939810	228.058	228

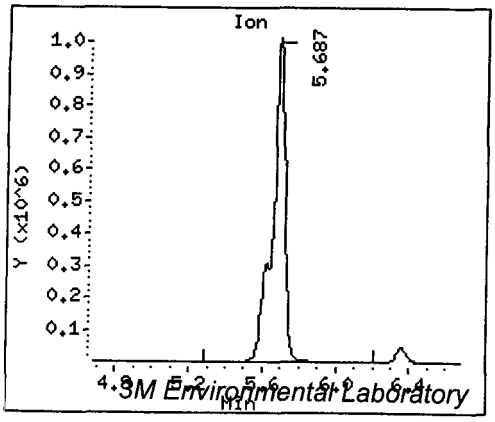
Data File: D:\chem\Rush.i\R010314.b\RUSH0062.D



× 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0063.D
Report Date: 20-Mar-2001 15:48

3M Environmental Laboratory

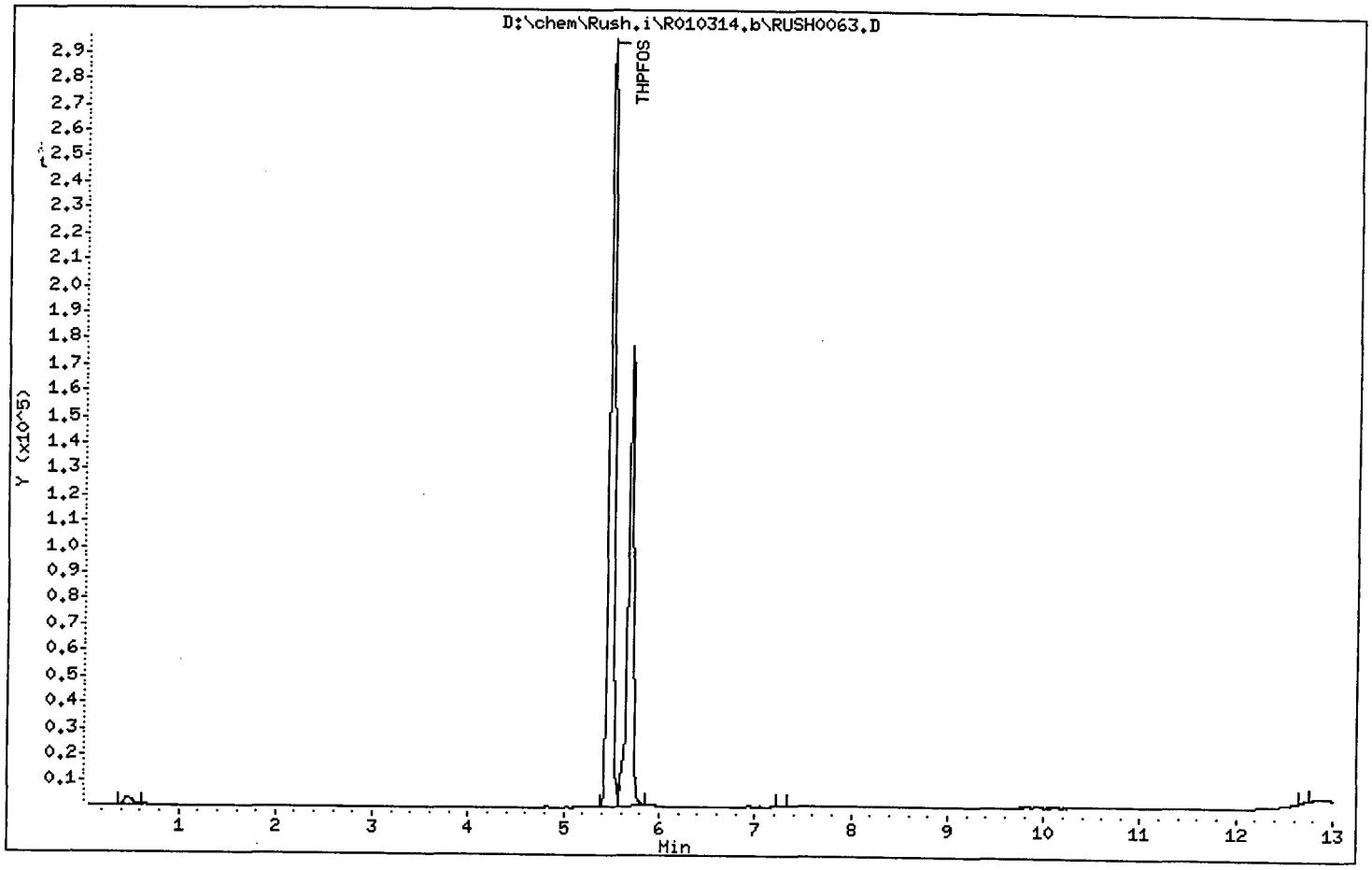
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0063.D
Lab Smp Id:
Inj Date : 15-MAR-2001 08:05
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4139-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

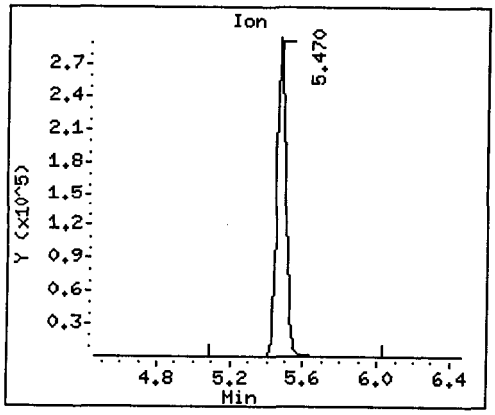
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.469	5.462	(1.000)	1086262	254.000	
2 PFOS	499	5.687	5.679	(1.040)	684895	20.6690	20.7

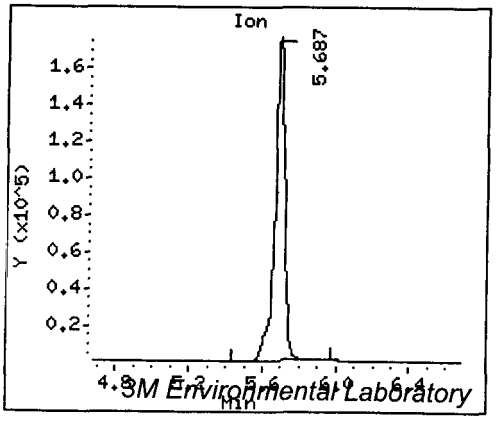
Data File: D:\chem\Rush.i\R010314.b\RUSH0063.D



× 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0064.D
Report Date: 20-Mar-2001 15:48

3M Environmental Laboratory

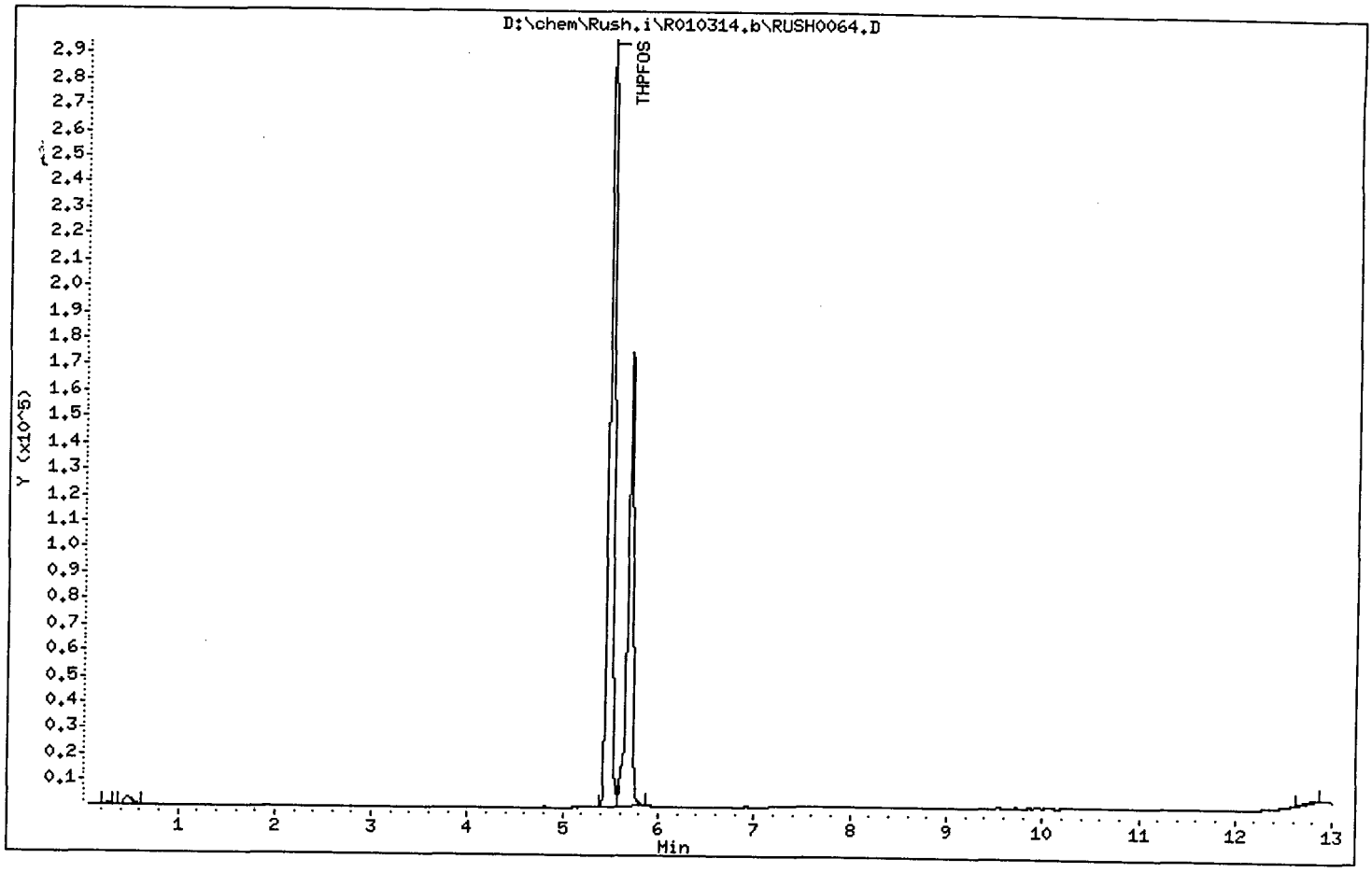
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0064.D
Lab Smp Id:
Inj Date : 15-MAR-2001 08:19
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4140-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 39
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

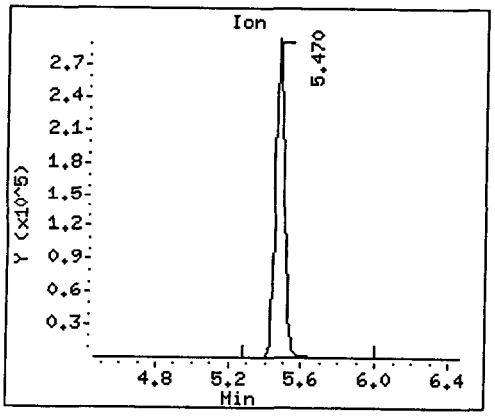
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.469	5.462	(1.000)	1087521	254.000	
2 PFOS	499	5.686	5.679	(1.040)	677314	20.3860	20.4

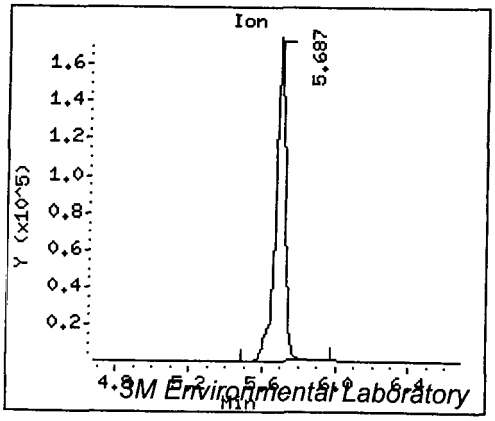
Data File: D:\chem\Rush.i\R010314.b\RUSH0064.D



× 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0065.D
Report Date: 20-Mar-2001 15:48

3M Environmental Laboratory

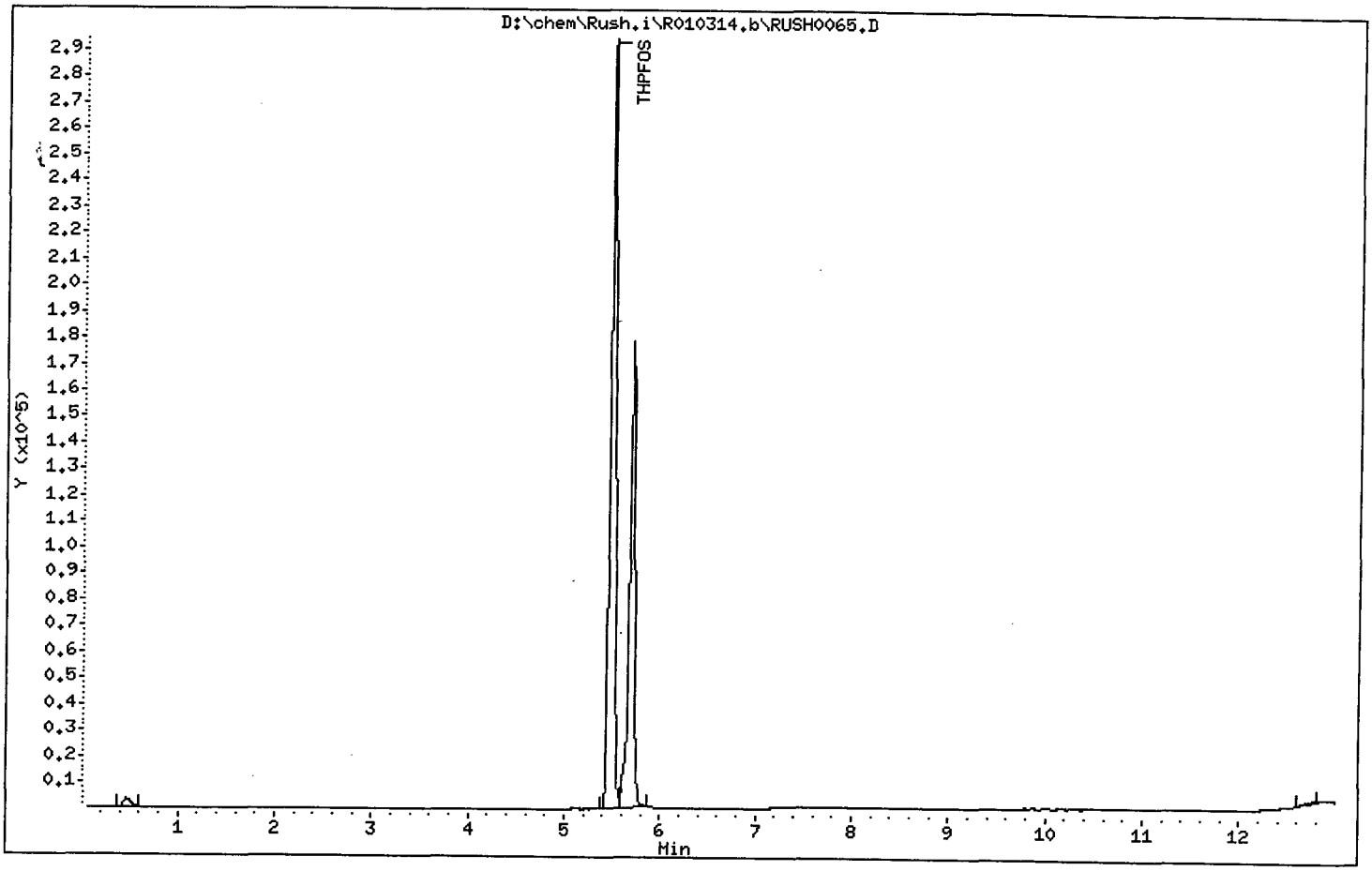
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0065.D
Lab Smp Id:
Inj Date : 15-MAR-2001 08:34
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4141-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 40
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

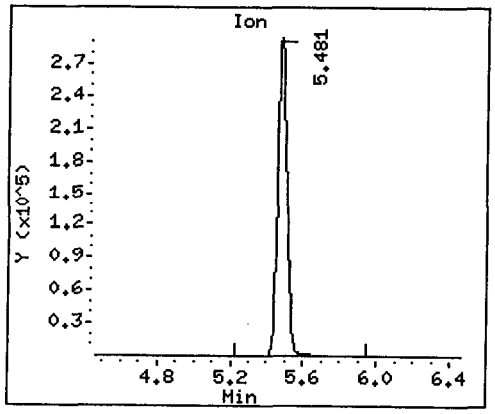
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.481	5.462	(1.000)	1075484	254.000	
2 PFOS	499	5.691	5.679	(1.038)	687097	20.9767	21.0

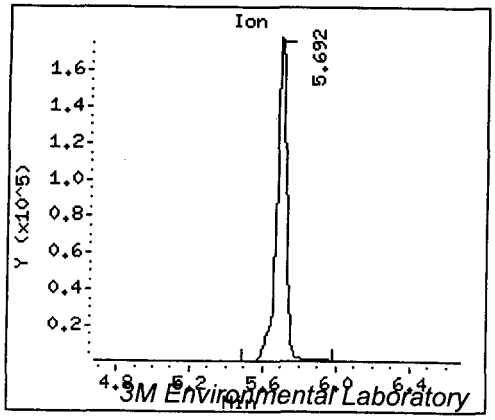
Data File: D:\chem\Rush.i\R010314.b\RUSH0065.D



× 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0066.D
Report Date: 20-Mar-2001 15:48

3M Environmental Laboratory

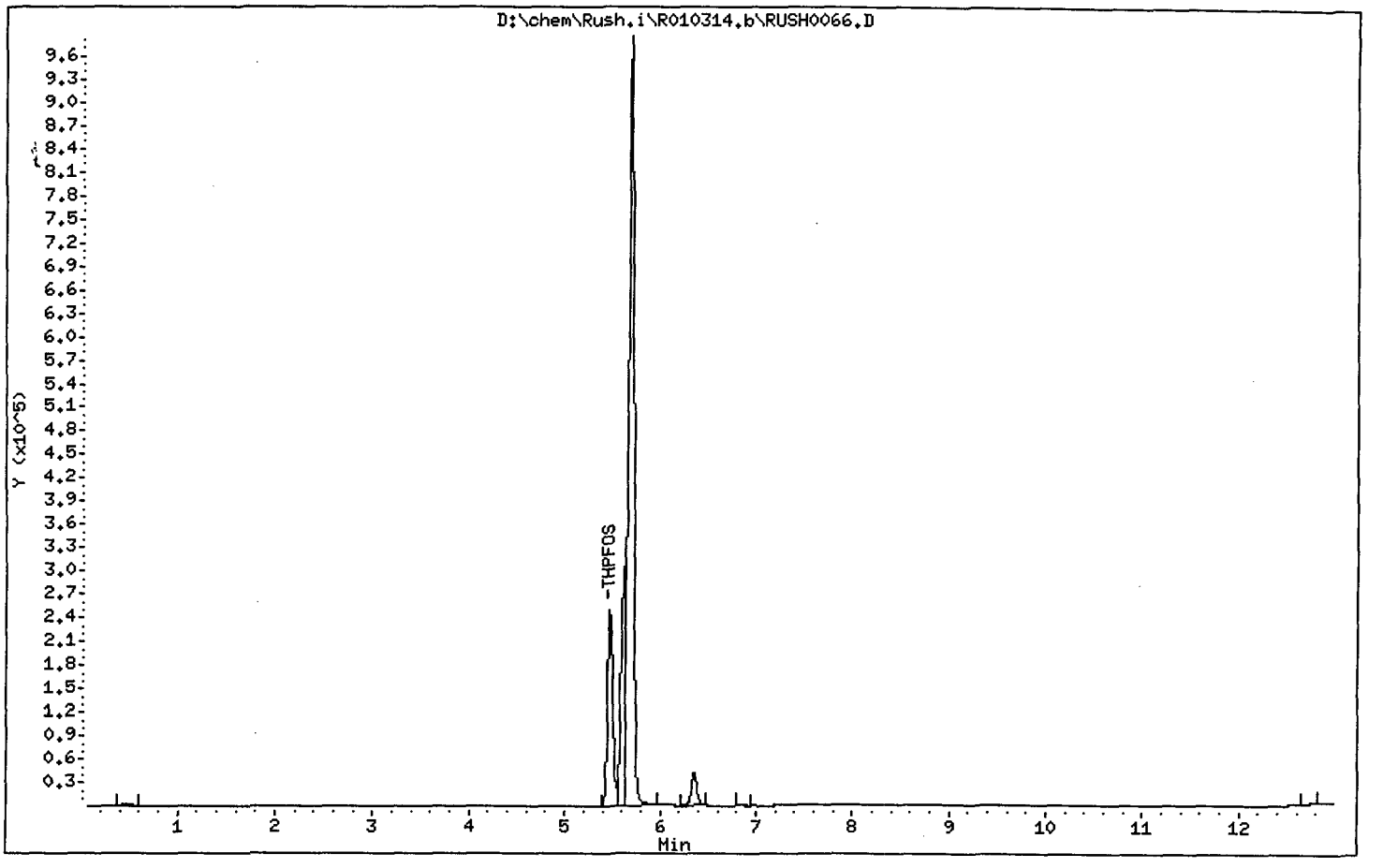
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0066.D
Lab Smp Id:
Inj Date : 15-MAR-2001 08:48
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4141MS-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

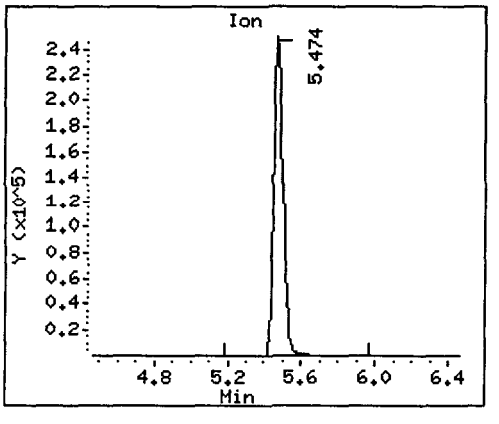
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.473	5.462	(1.000)	915669	254.000	
2 PFOS	499	5.684	5.679	(1.038)	4776931	228.225	228

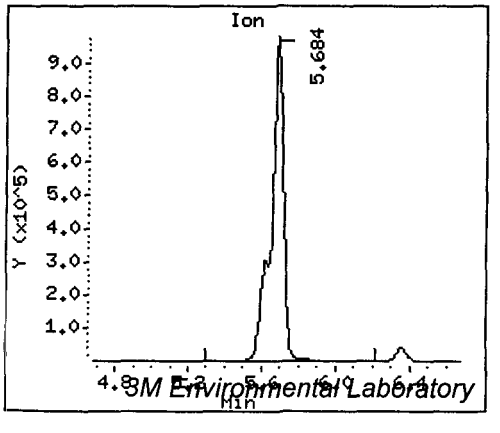
Data File: D:\chem\Rush.i\R010314.b\RUSH0066.D



* 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0067.D
Report Date: 20-Mar-2001 15:48

3M Environmental Laboratory

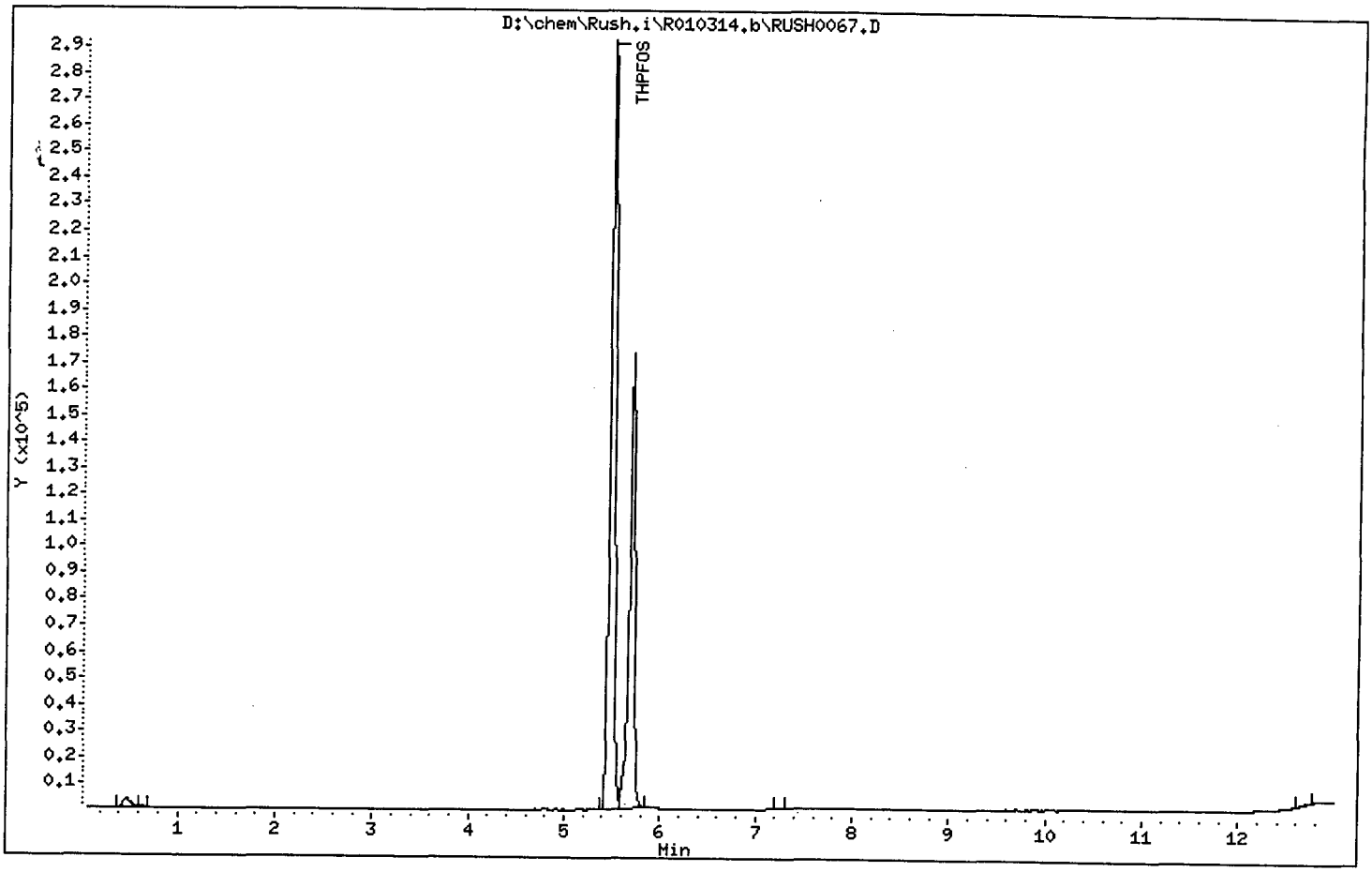
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0067.D
Lab Smp Id:
Inj Date : 15-MAR-2001 09:02
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4142-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

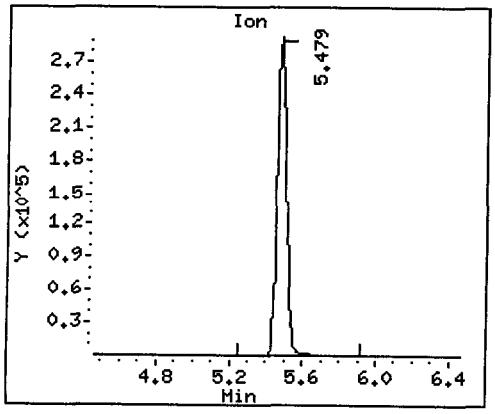
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.478	5.462	(1.000)	1079679	254.000	
2 PFOS	499	5.695	5.679	(1.040)	673507	20.4226	20.4

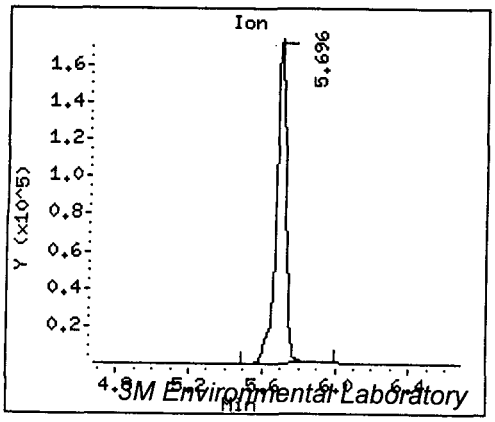
Data File: D:\chem\Rush.i\R010314.b\RUSH0067.D



× 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0068.D
Report Date: 20-Mar-2001 15:49

3M Environmental Laboratory

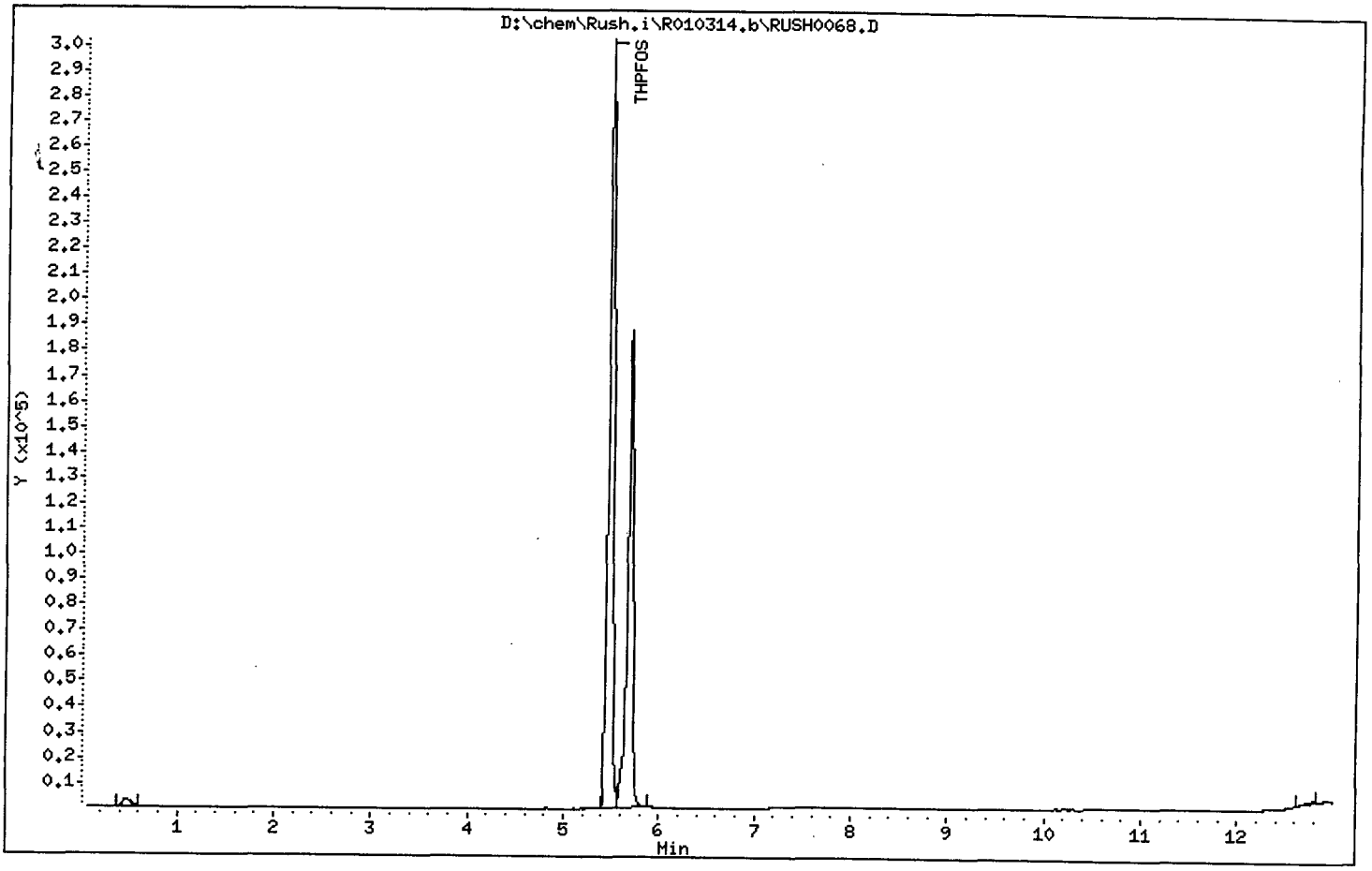
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0068.D
Lab Smp Id:
Inj Date : 15-MAR-2001 09:17
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4143-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

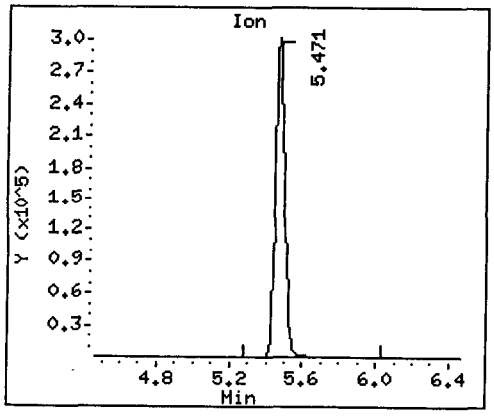
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.470	5.462	(1.000)	1108514	254.000	
2 PFOS	499	5.687	5.679	(1.040)	716747	21.2606	21.3

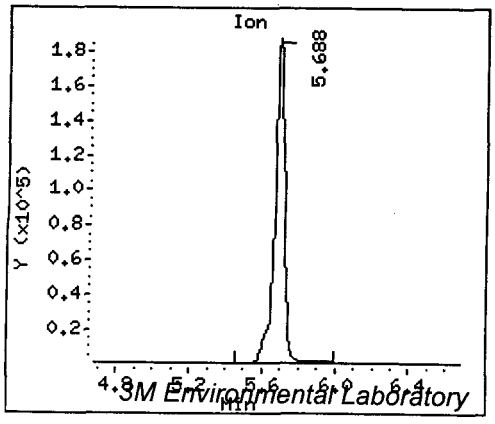
Data File: D:\chem\Rush.i\R010314.b\RUSH0068.D



× 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0072.D
Report Date: 20-Mar-2001 15:49

3M Environmental Laboratory

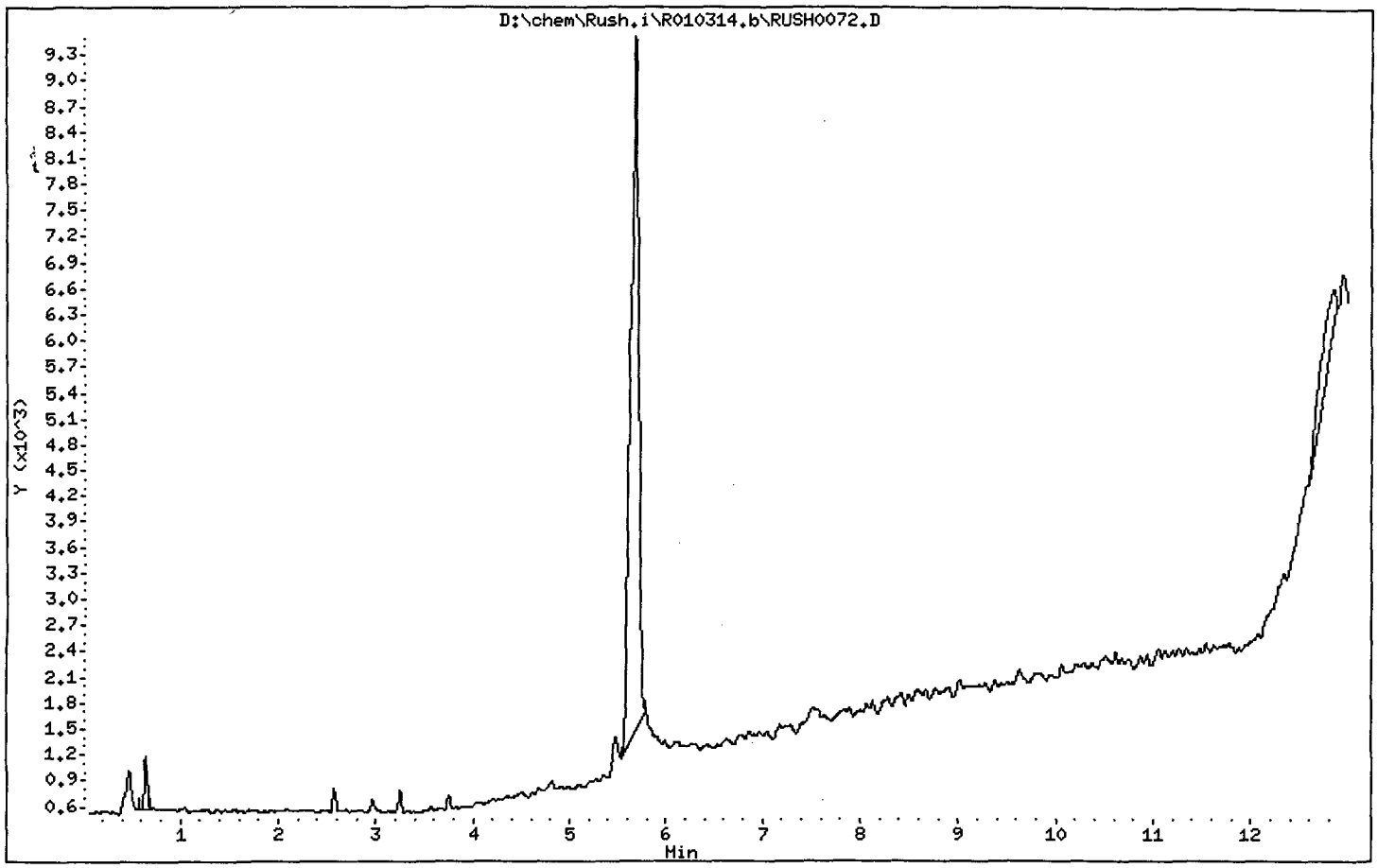
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0072.D
Lab Smp Id:
Inj Date : 15-MAR-2001 10:14
Operator : KLT Inst ID: Rush.i
Smp Info : TN-A 4802 MeOH
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 93
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

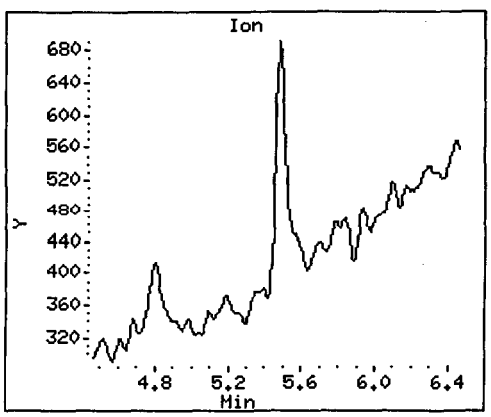
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	Compound Not Detected.					

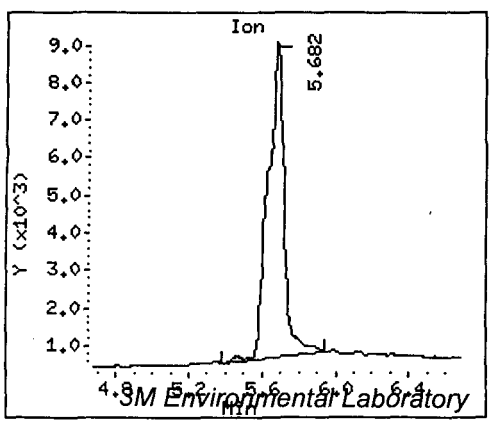
Data File: D:\chem\Rush.i\R010314.b\RUSH0072.D



× 1 THPFOS (Undetected)



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0073.D
Report Date: 20-Mar-2001 15:49

3M Environmental Laboratory

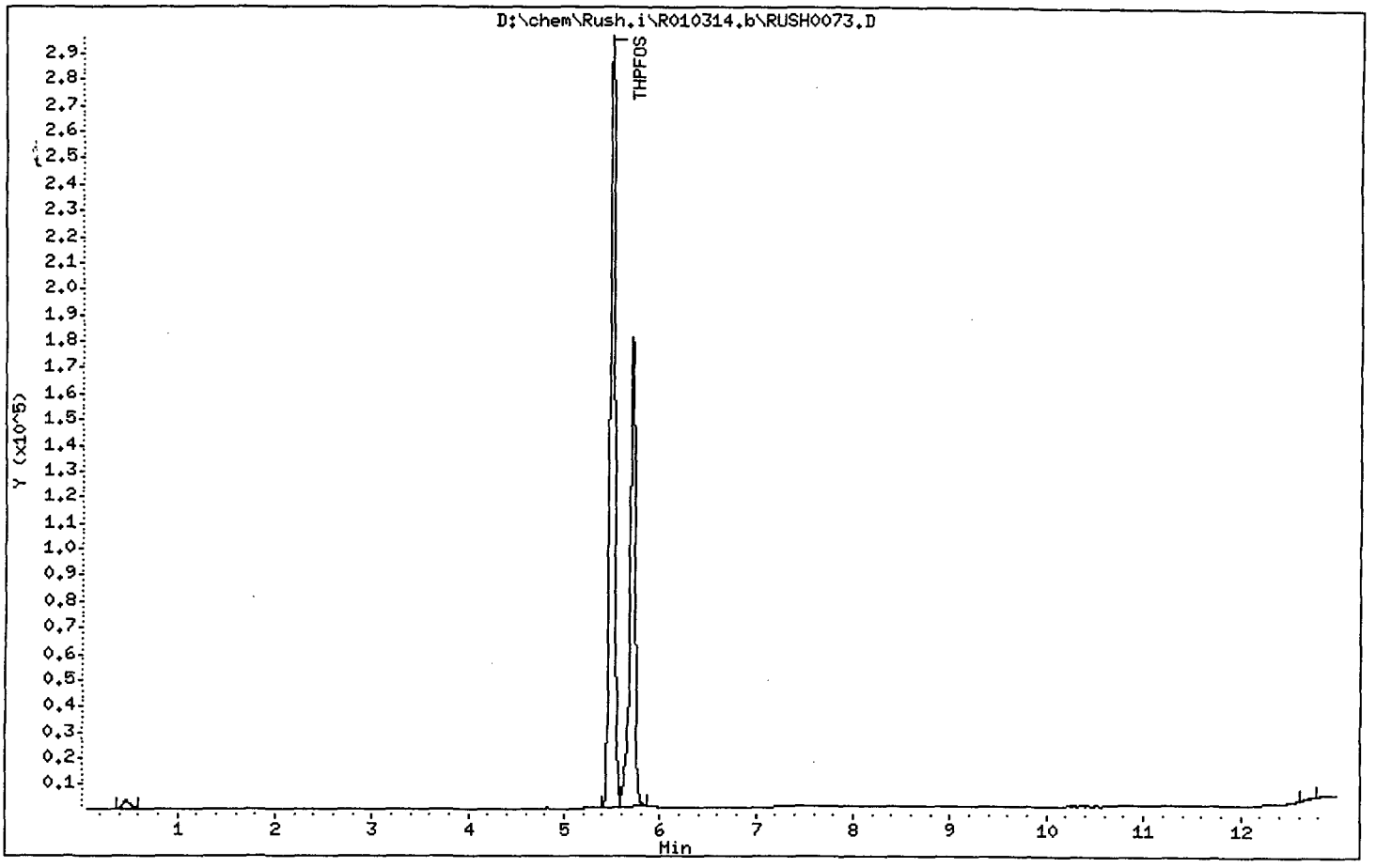
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0073.D
Lab Smp Id:
Inj Date : 15-MAR-2001 10:29
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4144-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

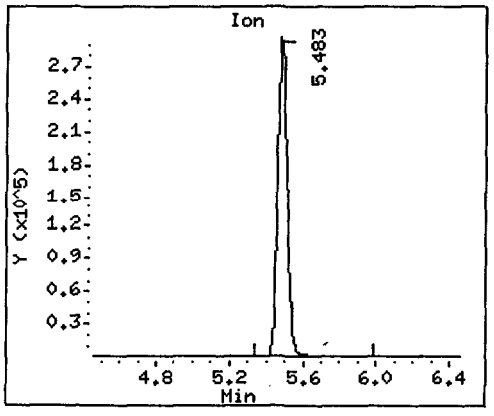
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.483	5.462	(1.000)	1091080	254.000	
2 PFOS	499	5.700	5.679	(1.040)	688862	20.7003	20.7

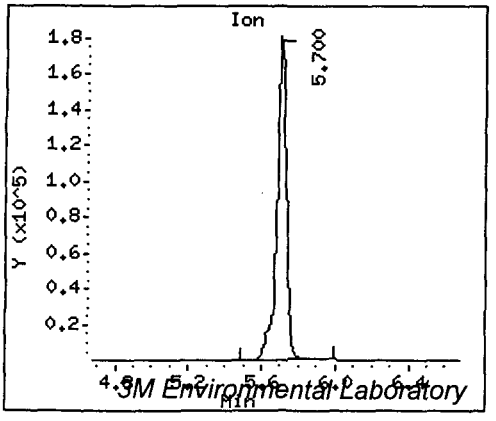
Data File: D:\chem\Rush.i\R010314.b\RUSH0073.D



* 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0074.D
Report Date: 20-Mar-2001 15:49

3M Environmental Laboratory

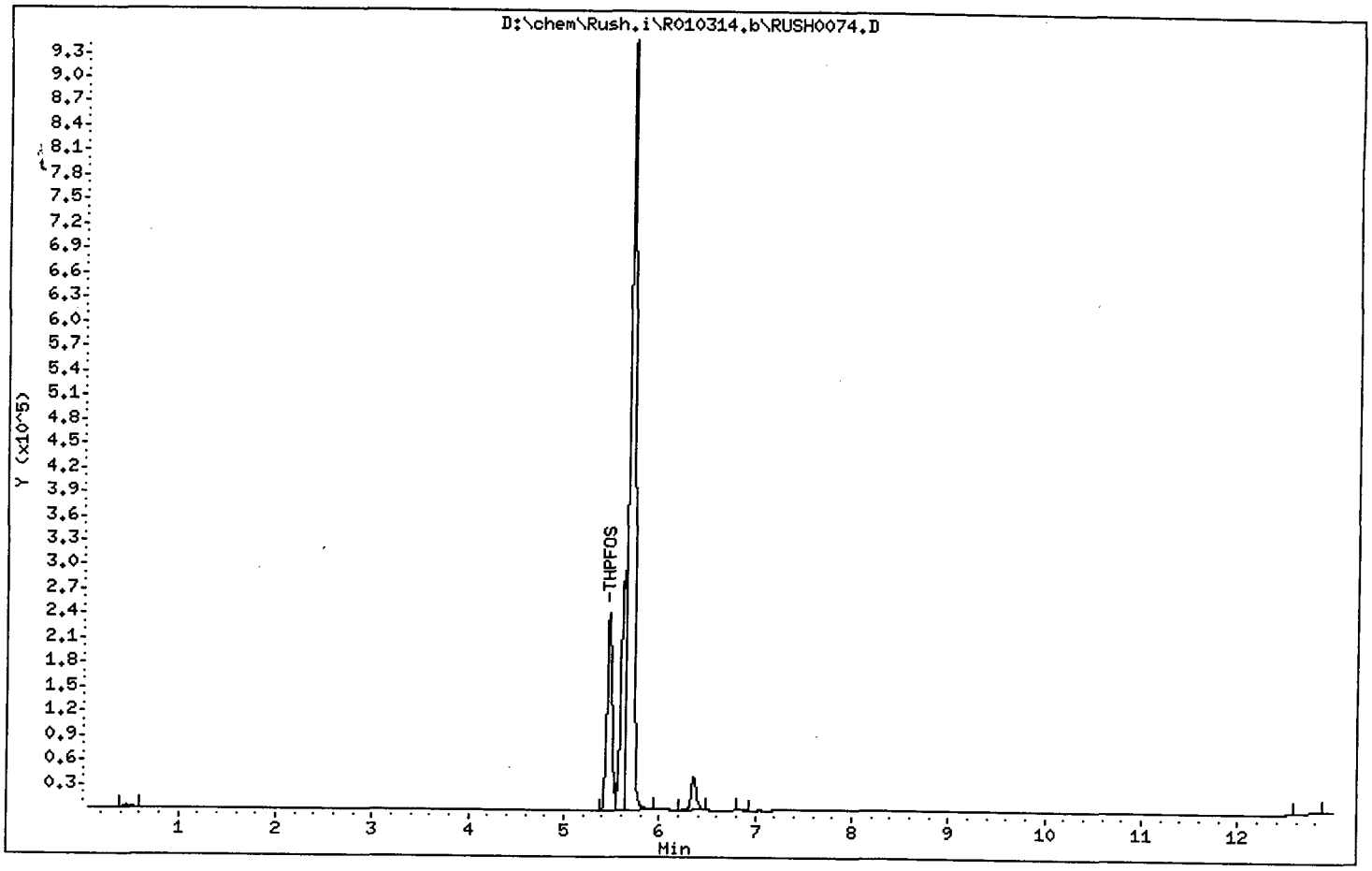
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0074.D
Lab Smp Id:
Inj Date : 15-MAR-2001 10:43
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4144MS-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 45
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

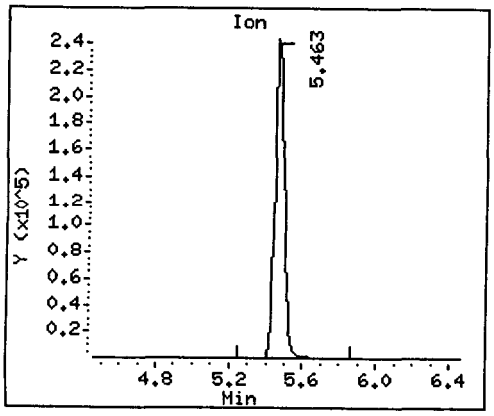
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 1 THPFOS	427	5.462	5.462	(1.000)	895662	254.000	
2 PFOS	499	5.686	5.679	(1.041)	4609795	224.468	224

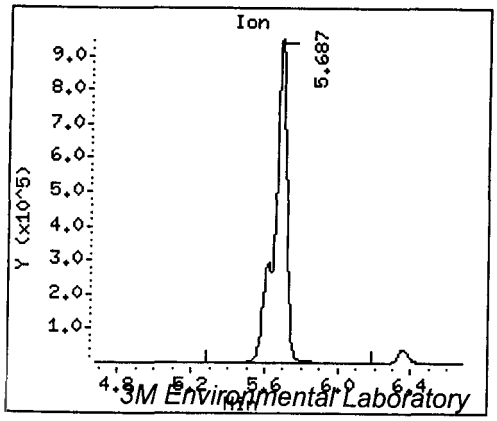
Data File: D:\chem\Rush.i\R010314.b\RUSH0074.D



× 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0075.D
Report Date: 20-Mar-2001 15:49

3M Environmental Laboratory

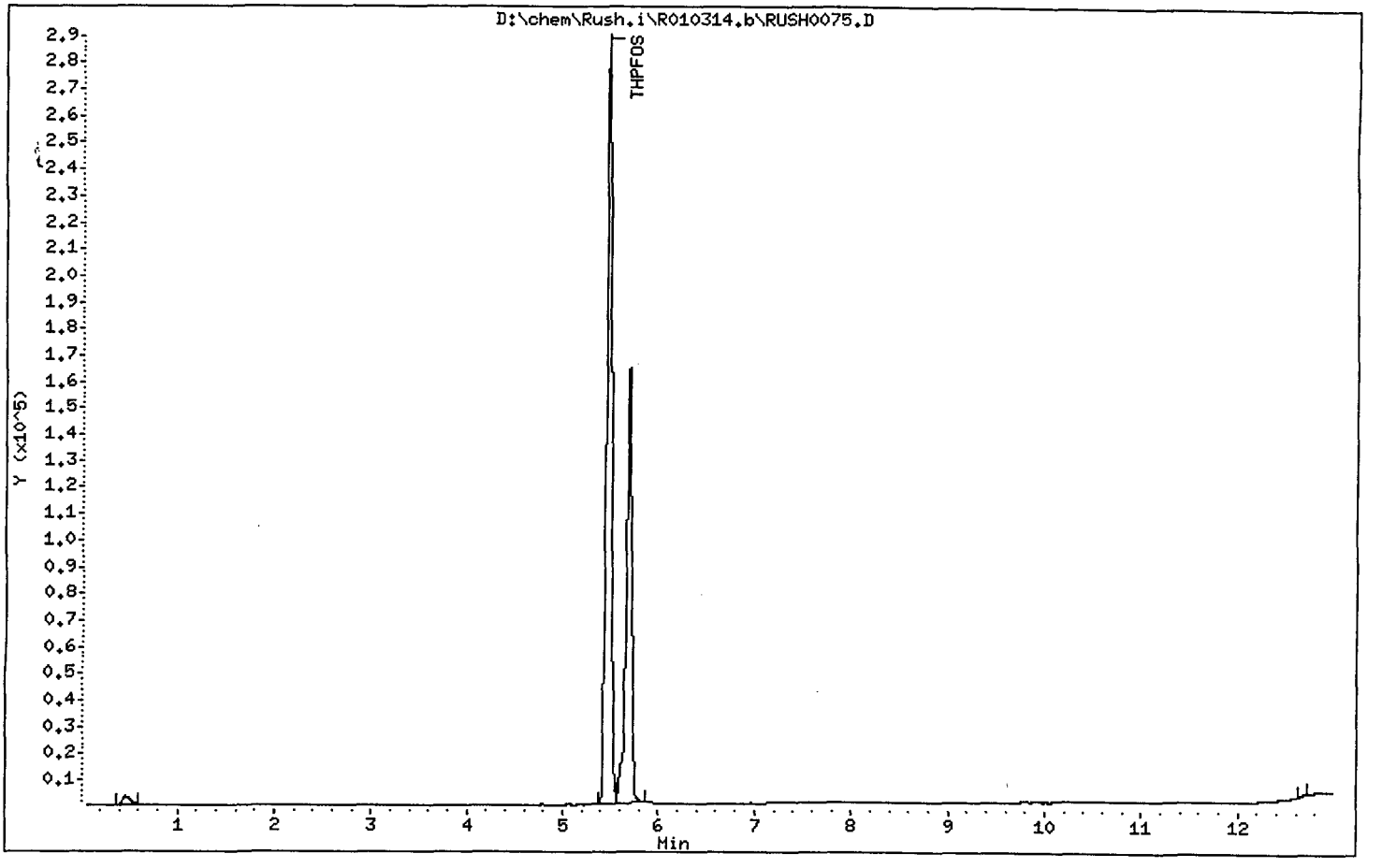
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0075.D
Lab Smp Id:
Inj Date : 15-MAR-2001 10:57
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4145-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 46
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

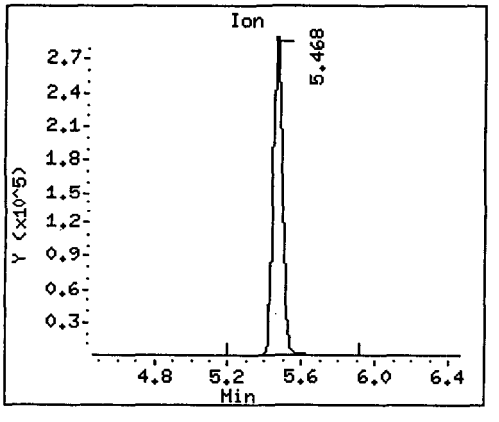
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.467	5.462	(1.000)	1070260	254.000	
2 PFOS	499	5.684	5.679	(1.040)	640428	19.4900	19.5

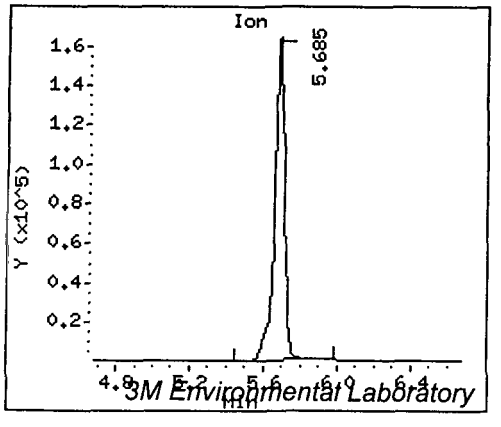
Data File: D:\chem\Rush.i\R010314.b\RUSH0075.D



* 1 THPFOS



2 PFOS



Data File: D:\chem\Rush.i\R010314.b\RUSH0076.D
Report Date: 20-Mar-2001 15:49

3M Environmental Laboratory

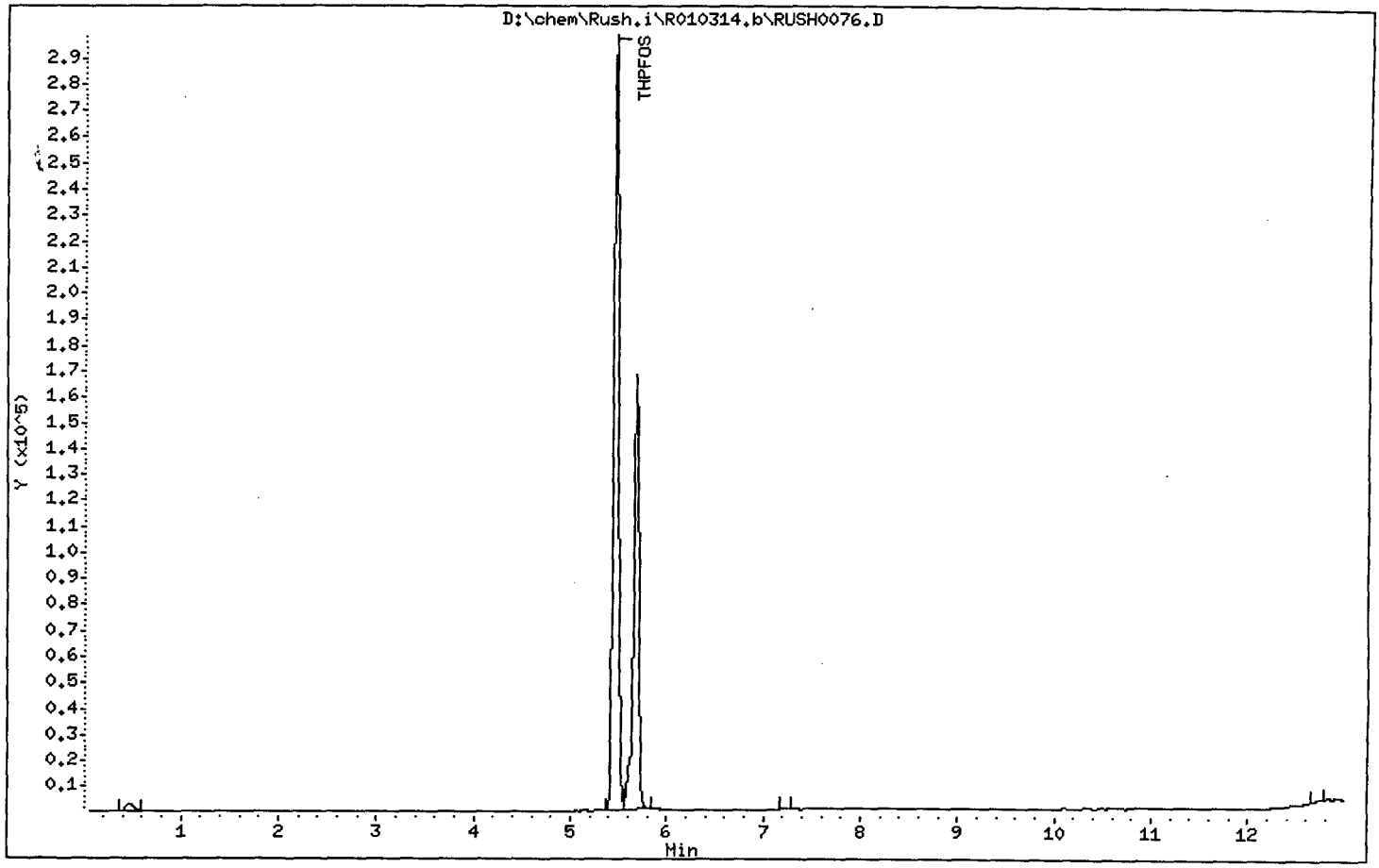
E00-1311 PFOS Adsorb/Desorb

Data file : D:\chem\Rush.i\R010314.b\RUSH0076.D
Lab Smp Id:
Inj Date : 15-MAR-2001 11:12
Operator : KLT Inst ID: Rush.i
Smp Info : 1311-4146-S1
Misc Info :
Comment :
Method : D:\chem\Rush.i\R010314.b\R010314t.m
Meth Date : 20-Mar-2001 15:02 terrell Quant Type: ISTD
Cal Date : 14-MAR-2001 23:28 Cal File: RUSH0027.D
Als bottle: 47
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: W19401

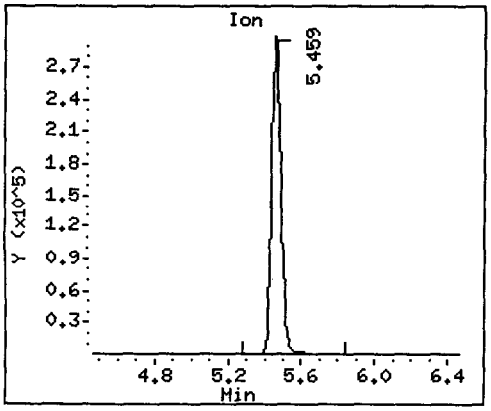
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
* 1 THPFOS	427	5.459	5.462	(1.000)	1090781	254.000	
2 PFOS	499	5.676	5.679	(1.040)	644391	19.2107	19.2

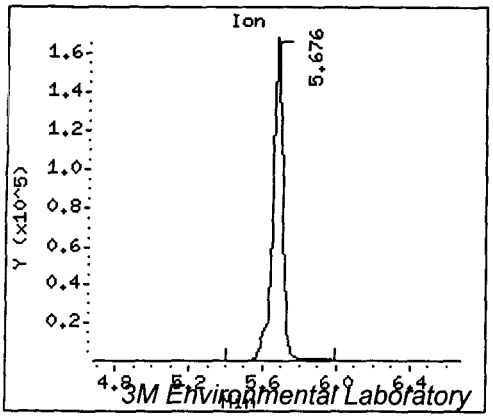
Data File: D:\chem\Rush.i\R010314.b\RUSH0076.D



× 1 THPFOS



2 PFOS



3M Environmental Laboratory

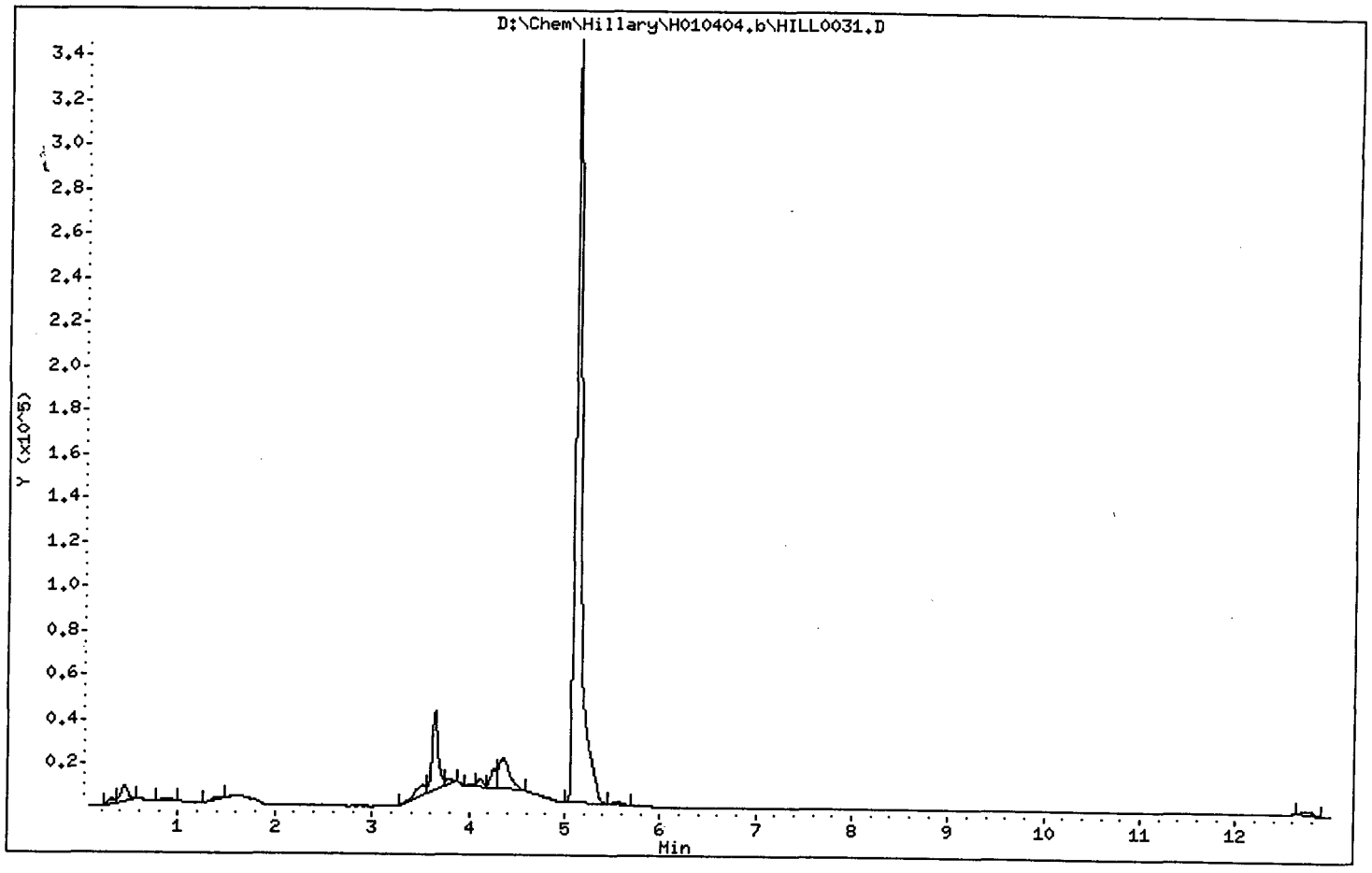
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0031.D
Lab Smp Id: 1311-4151-S1
Inj Date : 04-APR-2001 21:52
Operator : CMC Inst ID: hillary.i
Smp Info : 0mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

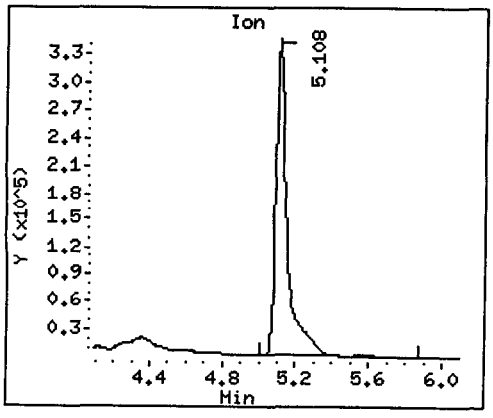
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.108	5.092	0.016	1562301	254.000	254
2 PFOS	499	Compound Not Detected.					

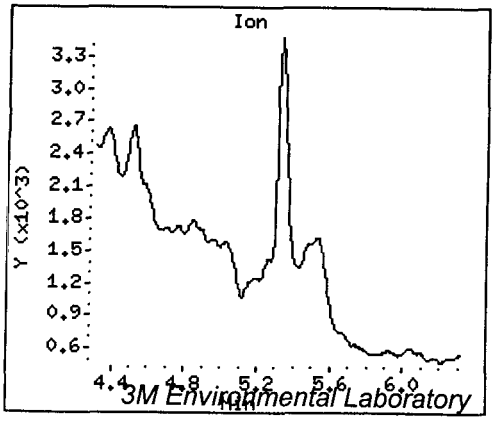
Data File: D:\Chem\Hillary\H010404.b\HILL0031.D



1 THPFOS



2 PFOS (Undetected)



Data File: D:\Chem\Hillary\H010404.b\HILL0032.D
Report Date: 09-Apr-2001 13:05

3M Environmental Laboratory

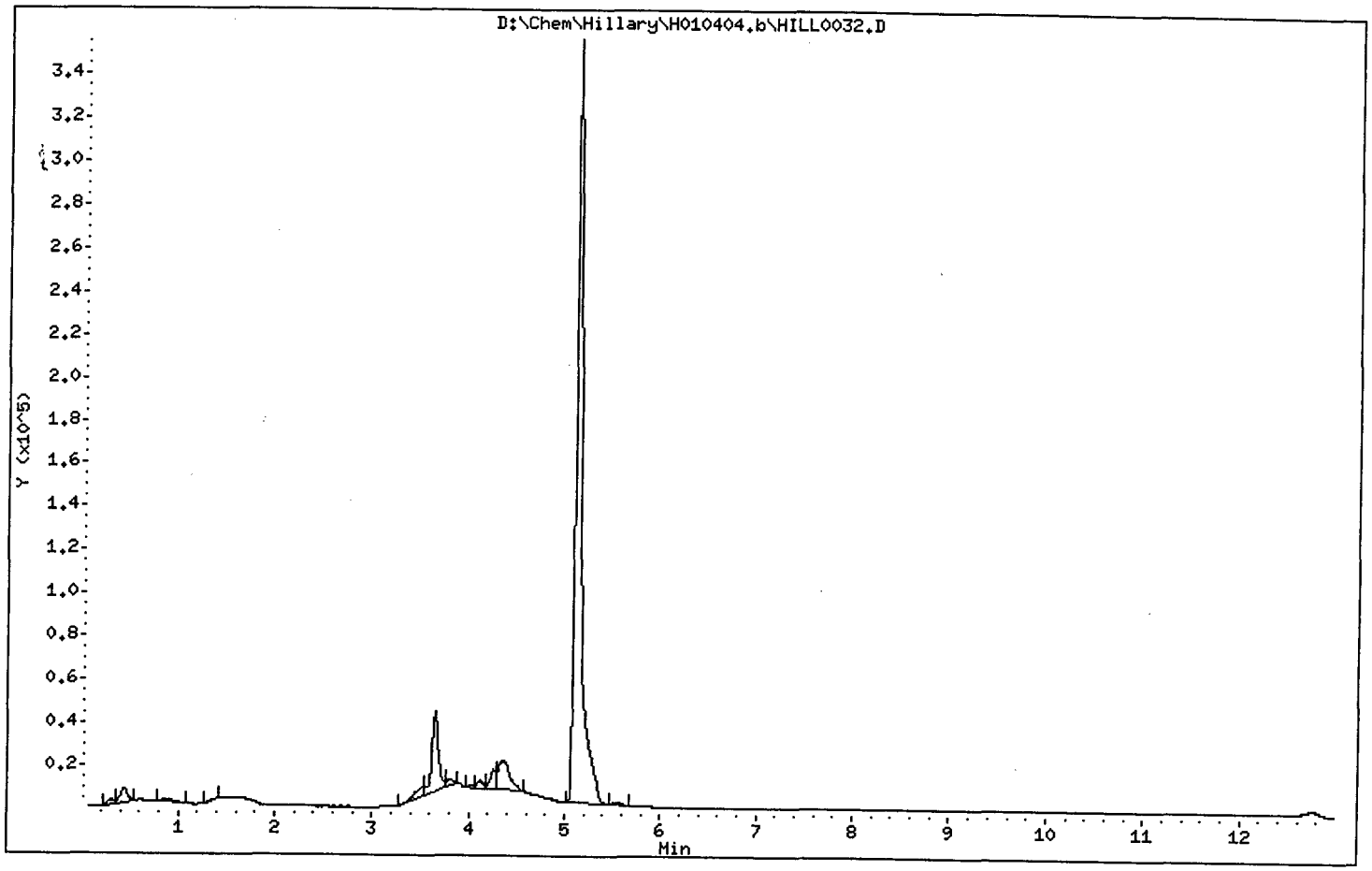
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0032.D
Lab Smp Id: 1311-4152-S1
Inj Date : 04-APR-2001 22:07
Operator : CMC Inst ID: hillary.i
Smp Info : 0mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

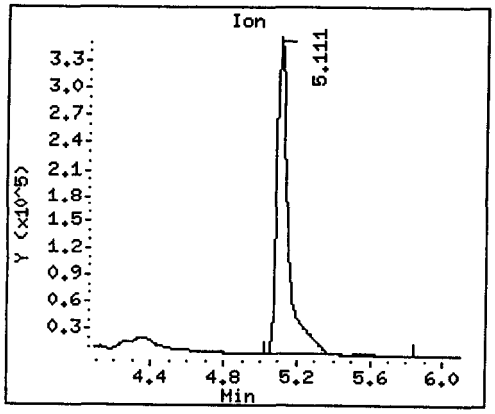
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
1 THPFOS	427	5.111	5.092	0.019	1575594	254.000	254
2 PFOS	499	Compound Not Detected.					

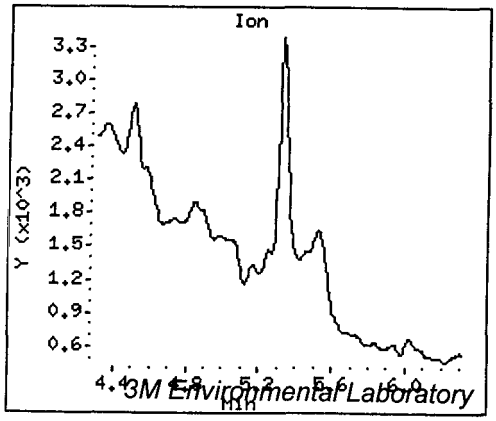
Data File: D:\Chem\Hillary\H010404.b\HILL0032.D



1 THPFOS



2 PFOS (Undetected)



Data File: D:\Chem\Hillary\H010404.b\HILL0033.D
Report Date: 09-Apr-2001 13:05

3M Environmental Laboratory

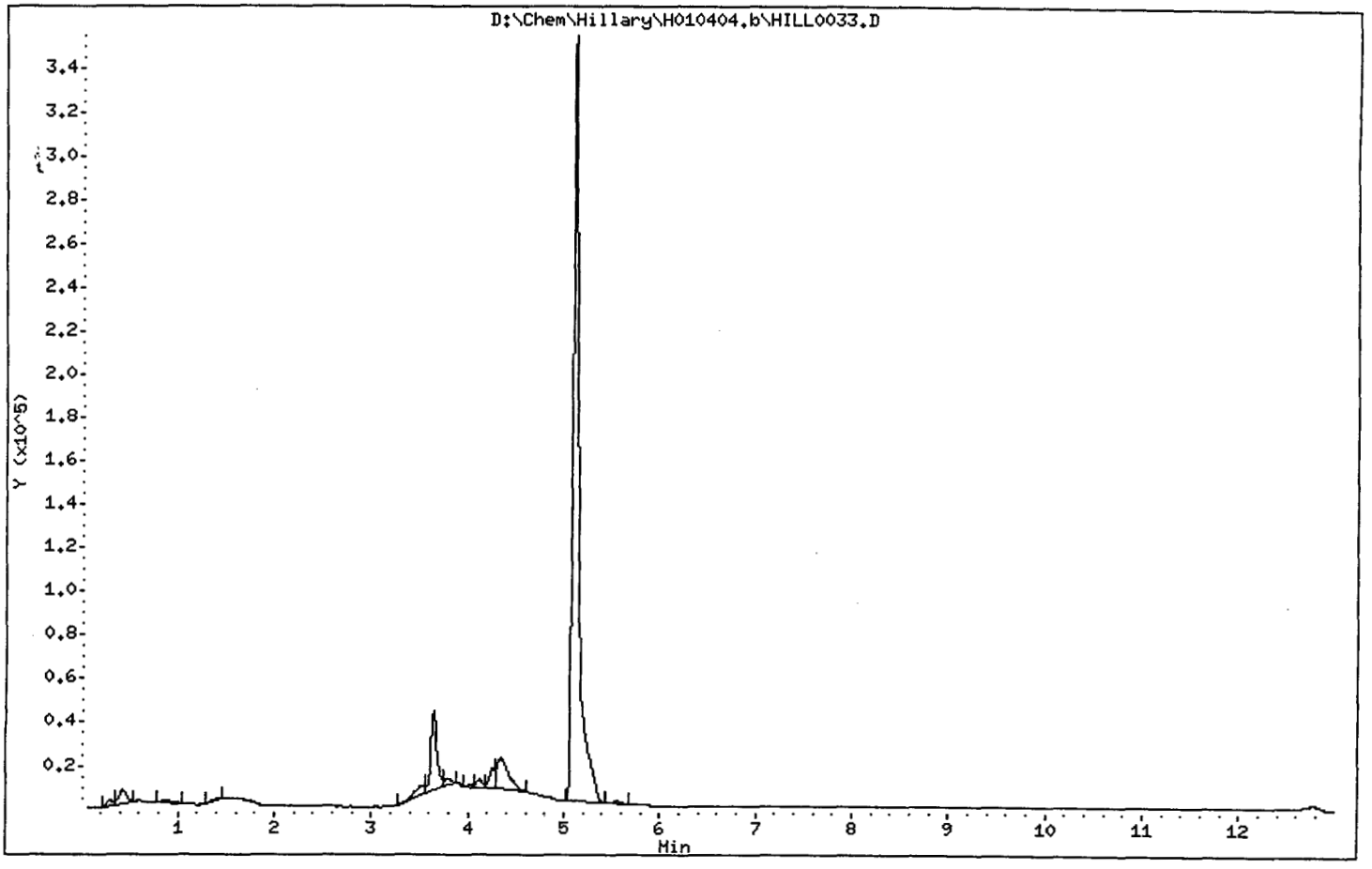
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0033.D
Lab Smp Id: 1311-4153-S1
Inj Date : 04-APR-2001 22:21
Operator : CMC Inst ID: hillary.i
Smp Info : 0mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

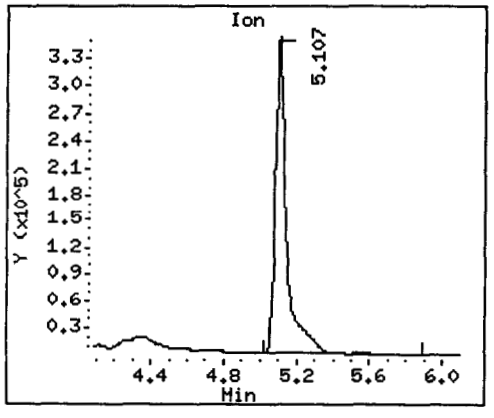
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.106	5.092	0.014	1560062	254.000	254
2 PFOS	499	Compound Not Detected.					

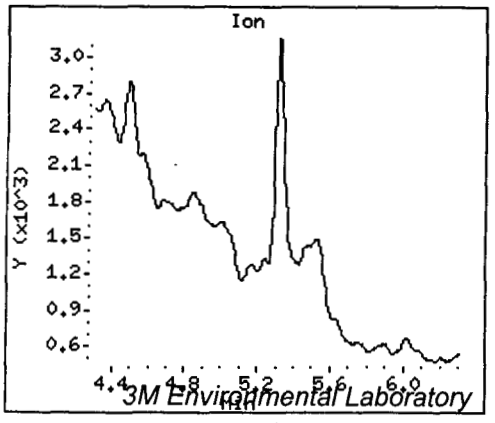
Data File: D:\Chem\Hillary\H010404.b\HILL0033.D



1 THPFOS



2 PFOS (Undetected)



Data File: D:\Chem\Hillary\H010404.b\HILL0034.D
Report Date: 09-Apr-2001 13:05

3M Environmental Laboratory

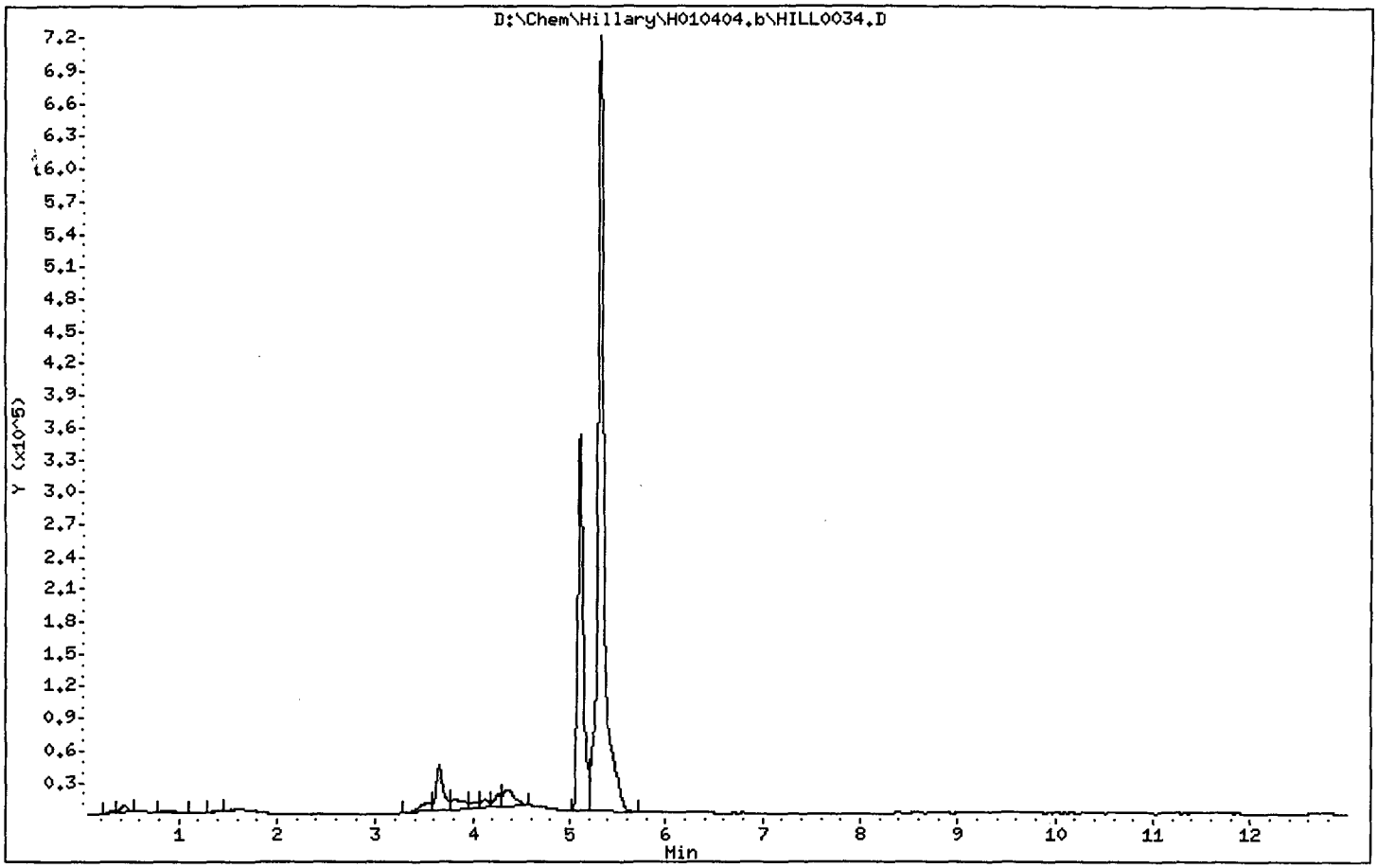
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0034.D
Lab Smp Id: 1311-4153MS-S1
Inj Date : 04-APR-2001 22:36
Operator : CMC Inst ID: hillary.i
Smp Info : 0mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

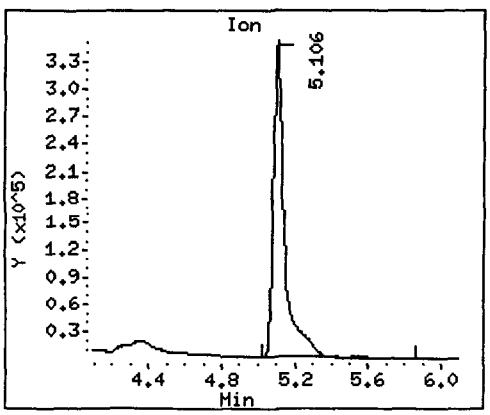
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
1 THPFOS	427	5.105	5.092	0.013	1537278	254.000	254
2 PFOS	499	5.315	5.309	0.006	3170996	168.305	168

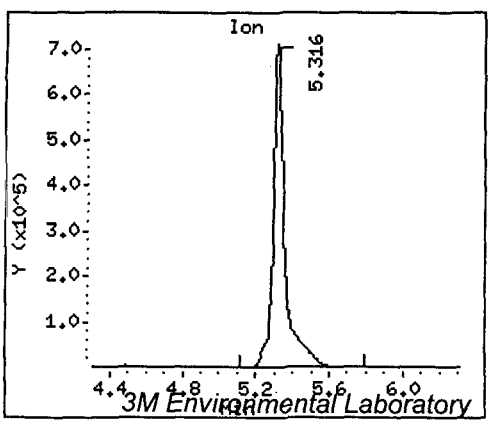
Data File: D:\Chem\Hillary\H010404.b\HILL0034.D



1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010404.b\HILL0035.D
Report Date: 09-Apr-2001 13:05

3M Environmental Laboratory

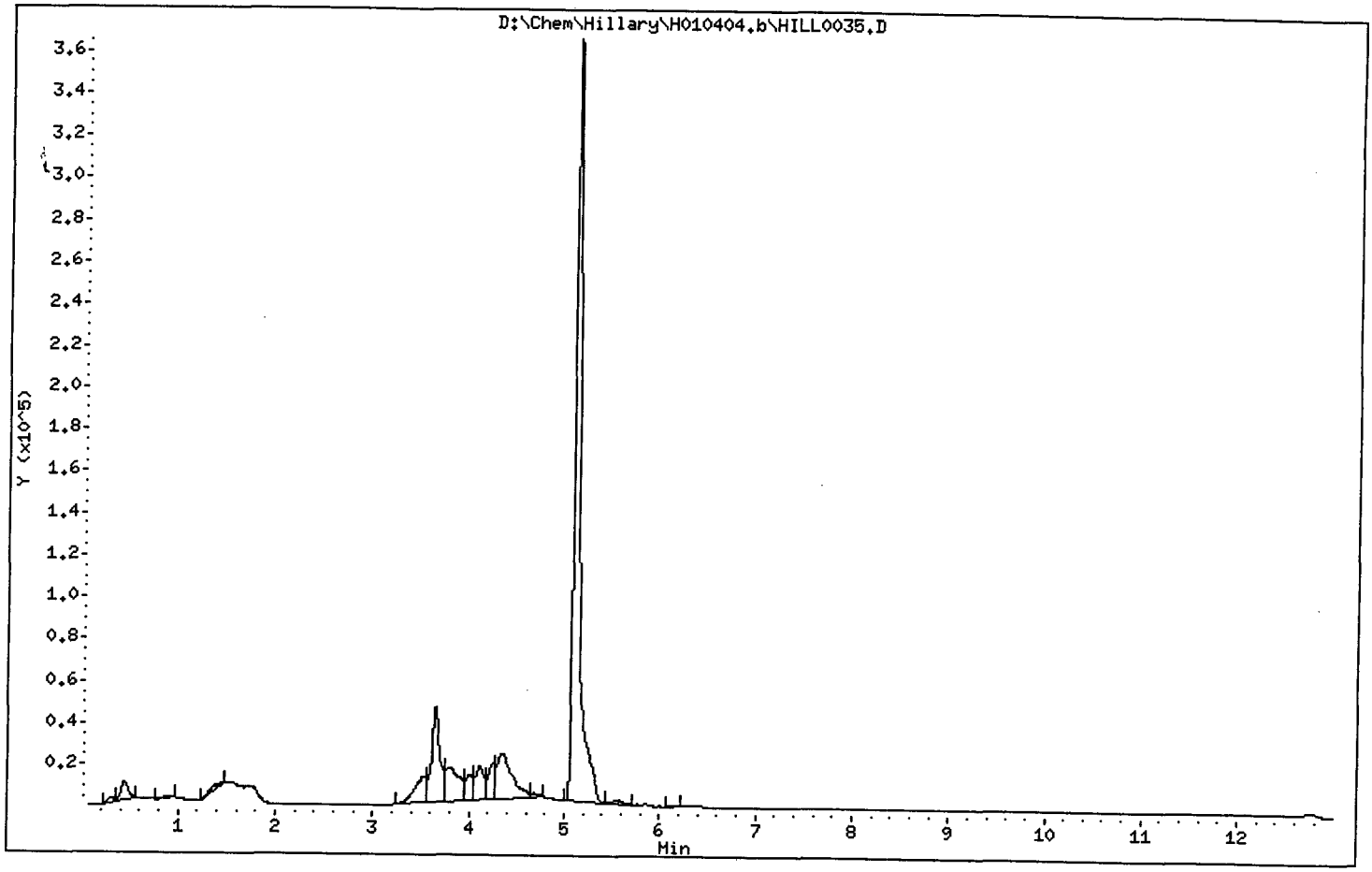
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0035.D
Lab Smp Id: 1311-4154-S1
Inj Date : 04-APR-2001 22:50
Operator : CMC Inst ID: hillary.i
Smp Info : 0mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 45
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

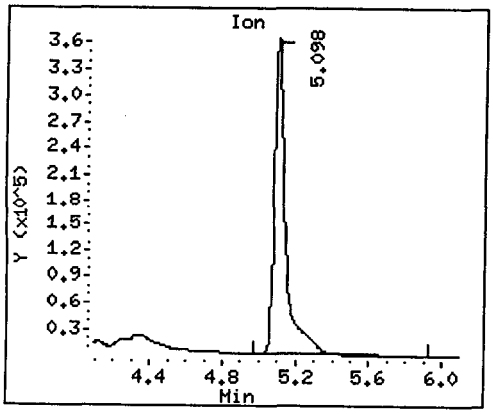
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.098	5.092	0.006	1599896	254.000	254
2 PFOS	499	Compound Not Detected.					

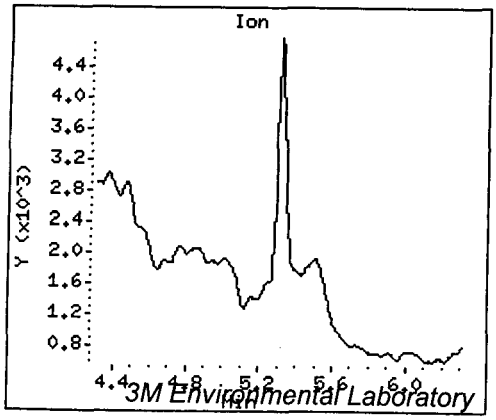
Data File: D:\Chem\Hillary\H010404.b\HILL0035.D



1 THPFOS



2 PFOS (Undetected)



Data File: D:\Chem\Hillary\H010404.b\HILL0036.D
Report Date: 09-Apr-2001 13:05

3M Environmental Laboratory

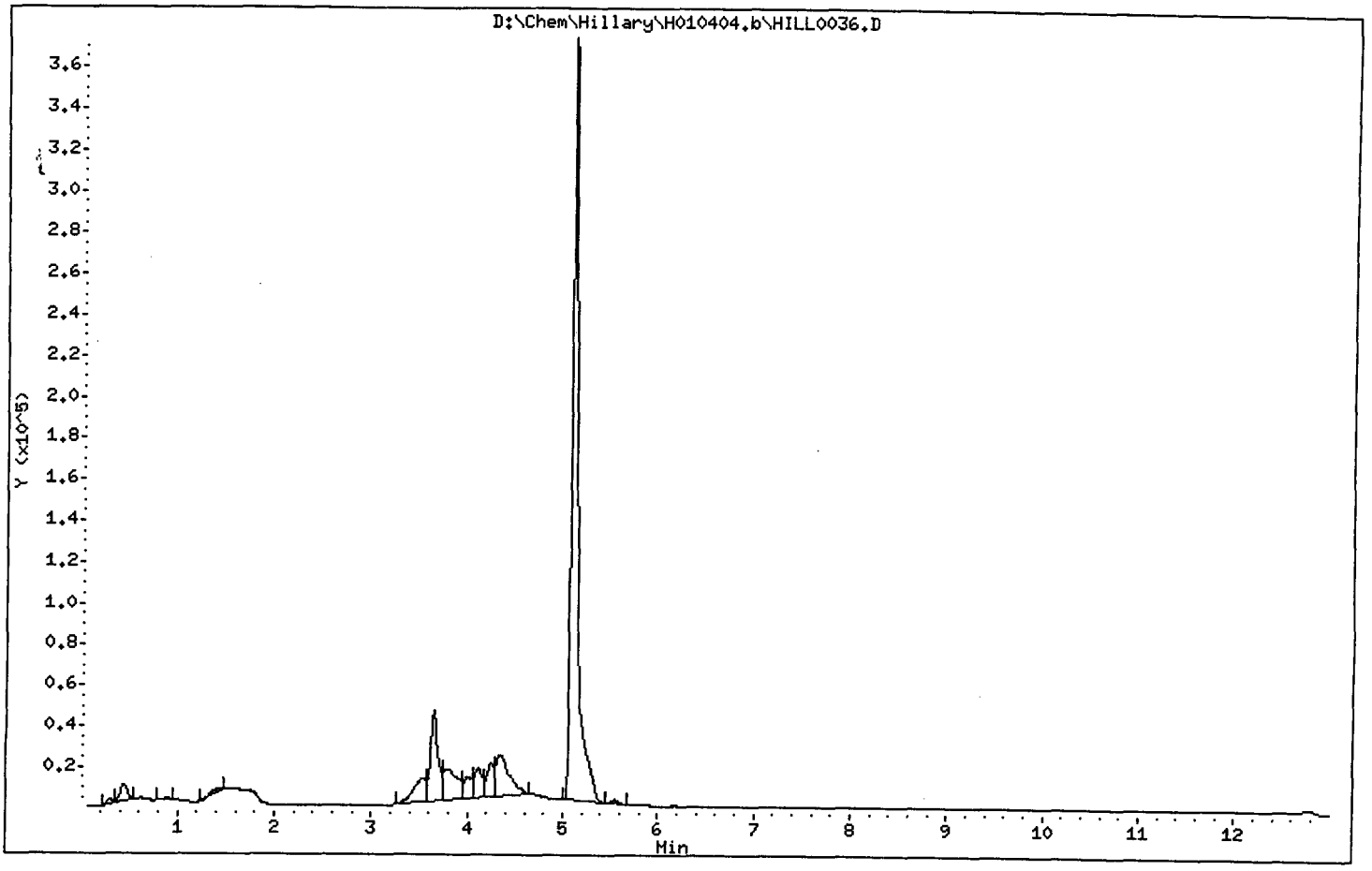
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0036.D
Lab Smp Id: 1311-4155-S1
Inj Date : 04-APR-2001 23:04
Operator : CMC Inst ID: hillary.i
Smp Info : 0mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 46
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

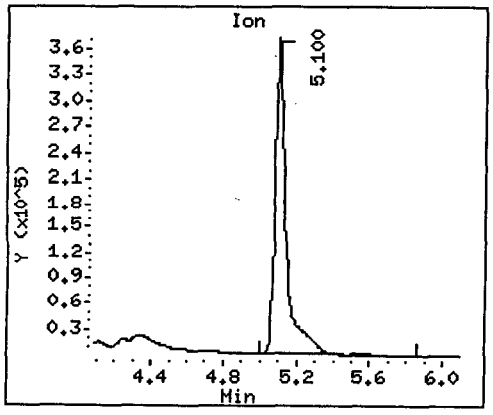
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.099	5.092	0.007	1613917	254.000	254
2 PFOS	499	Compound Not Detected.					

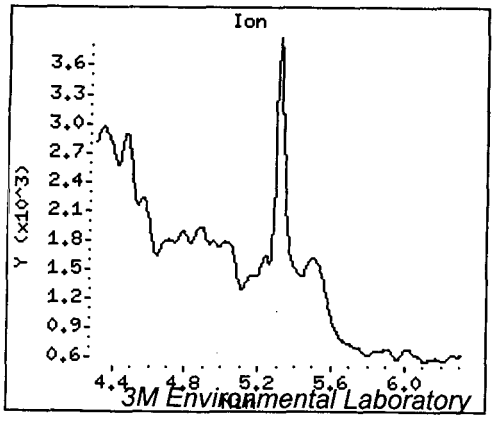
Data File: D:\Chem\Hillary\H010404.b\HILL0036.D



1 THPFOS



2 PFOS (Undetected)



Data File: D:\Chem\Hillary\H010404.b\HILL0037.D
Report Date: 09-Apr-2001 13:05

3M Environmental Laboratory

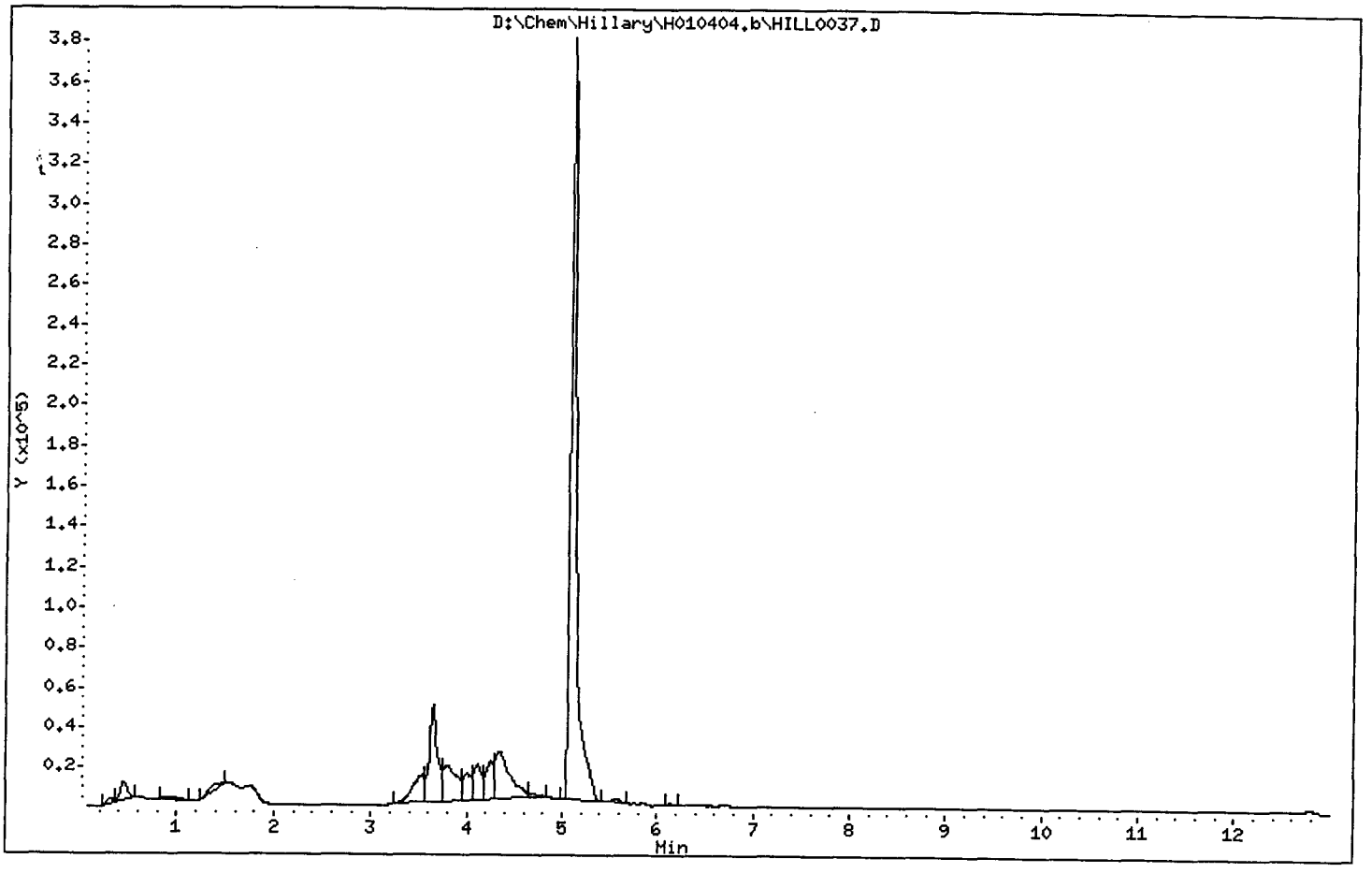
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0037.D
Lab Smp Id: 1311-4156-S1
Inj Date : 04-APR-2001 23:19
Operator : CMC Inst ID: hillary.i
Smp Info : 0mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 47
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

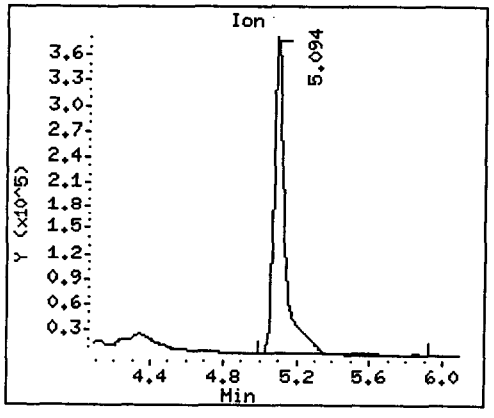
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
1 THPFOS	427	5.093	5.092	0.001	1644662	254.000	254
2 PFOS	499	Compound Not Detected.					

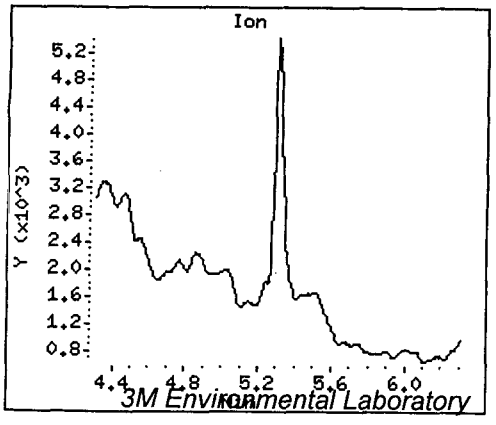
Data File: D:\Chem\Hillary\H010404.b\HILL0037.D



1 THPFOS



2 PFOS (Undetected)



Data File: D:\Chem\Hillary\H010404.b\HILL0039.D
Report Date: 09-Apr-2001 13:05

3M Environmental Laboratory

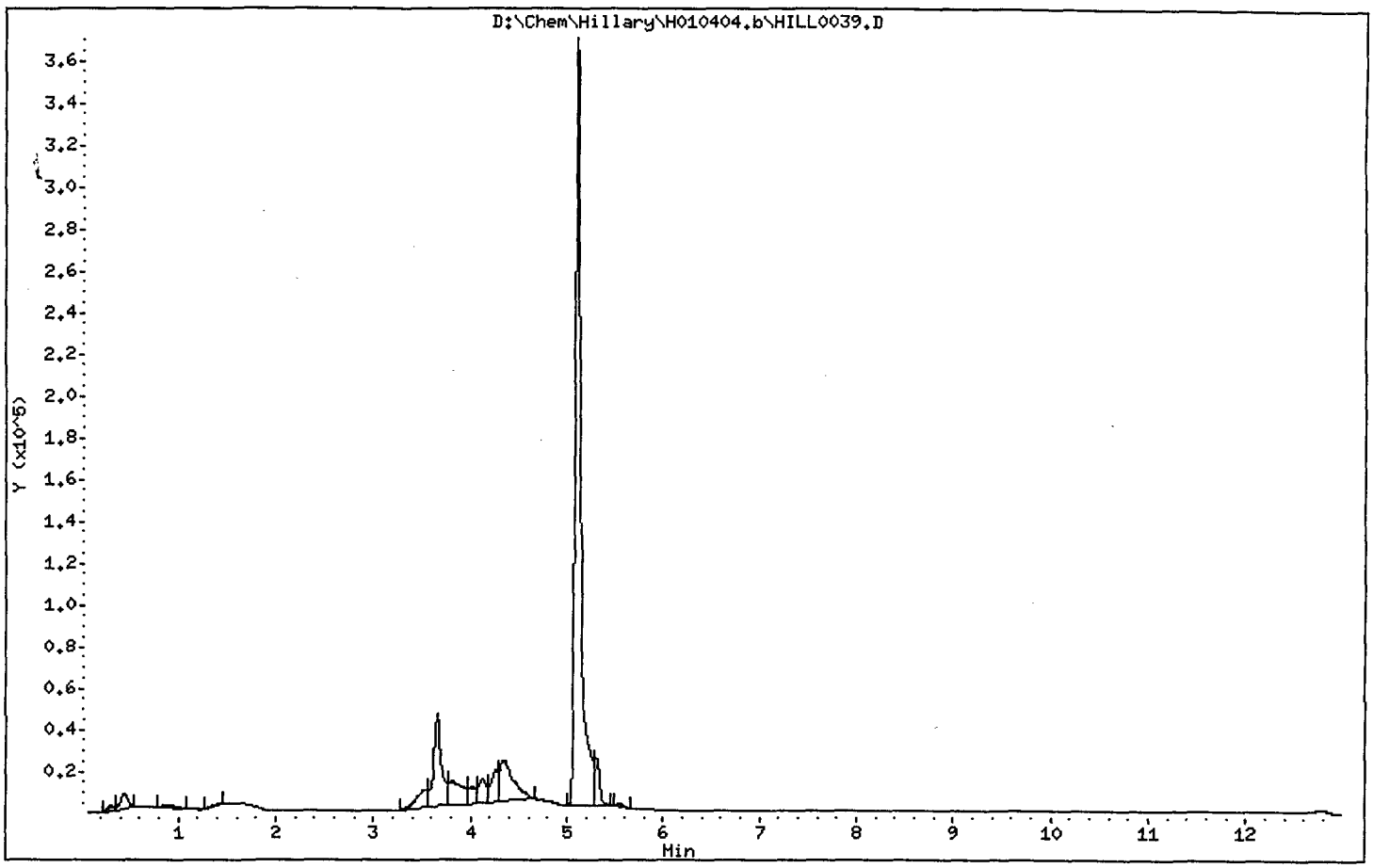
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0039.D
Lab Smp Id: 1311-4157-S1
Inj Date : 04-APR-2001 23:48
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

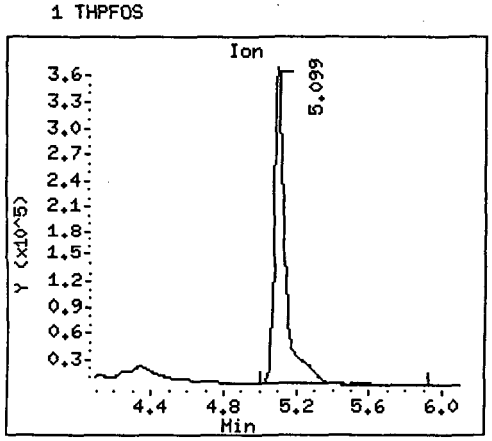
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.098	5.092	0.006	1587389	254.000	254
2 PFOS	499	Compound Not Detected.					

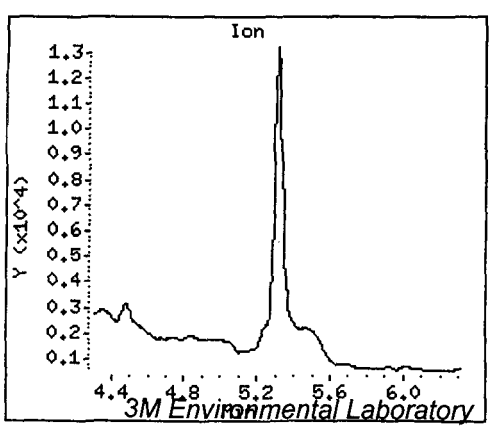
Data File: D:\Chem\Hillary\H010404.b\HILL0039.D



1 THPFOS



2 PFOS (Undetected)



Data File: D:\Chem\Hillary\H010404.b\HILL0040.D
Report Date: 09-Apr-2001 13:06

3M Environmental Laboratory

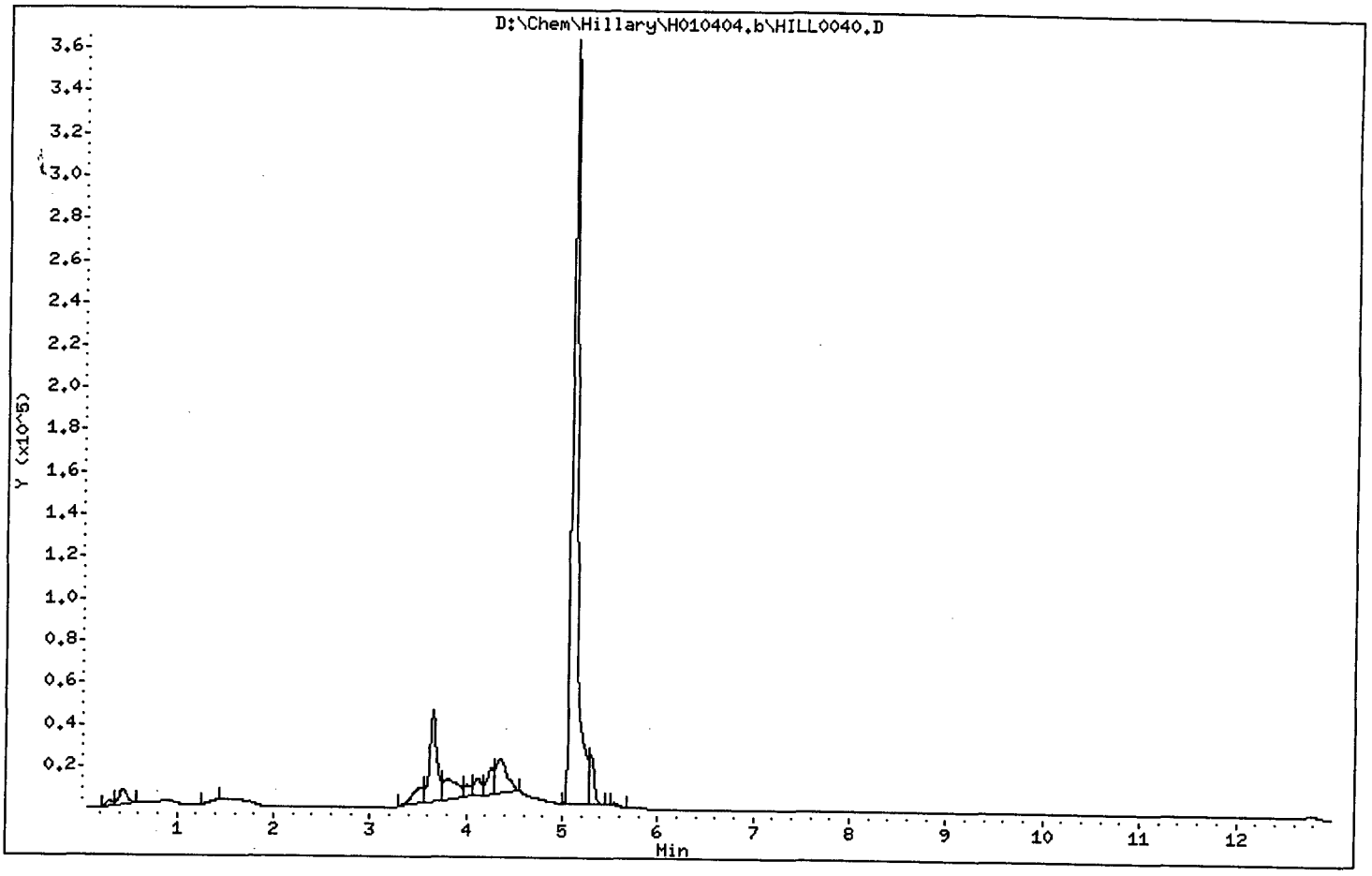
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0040.D
Lab Smp Id: 1311-4158-S1
Inj Date : 05-APR-2001 00:02
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 50
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

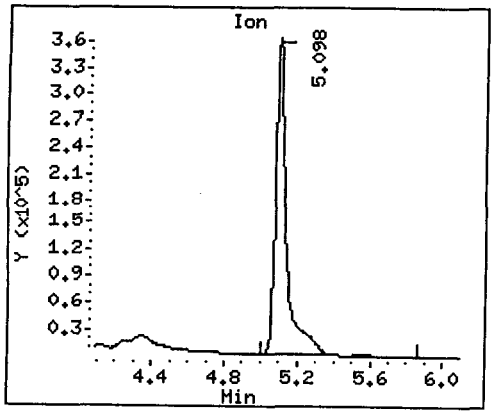
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.098	5.092	0.006	1567309	254.000	254
2 PFOS	499	Compound Not Detected.					

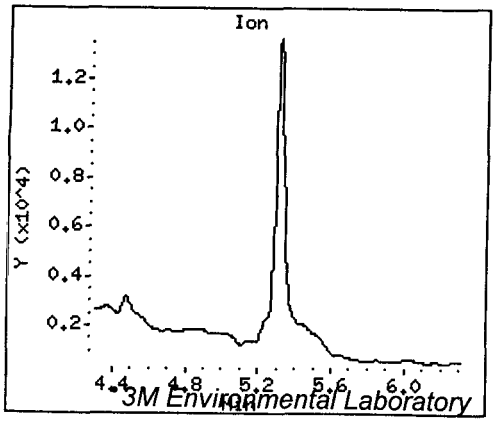
Data File: D:\Chem\Hillary\H010404.b\HILL0040.D



1 THPFOS



2 PFOS (Undetected)



3M Environmental Laboratory

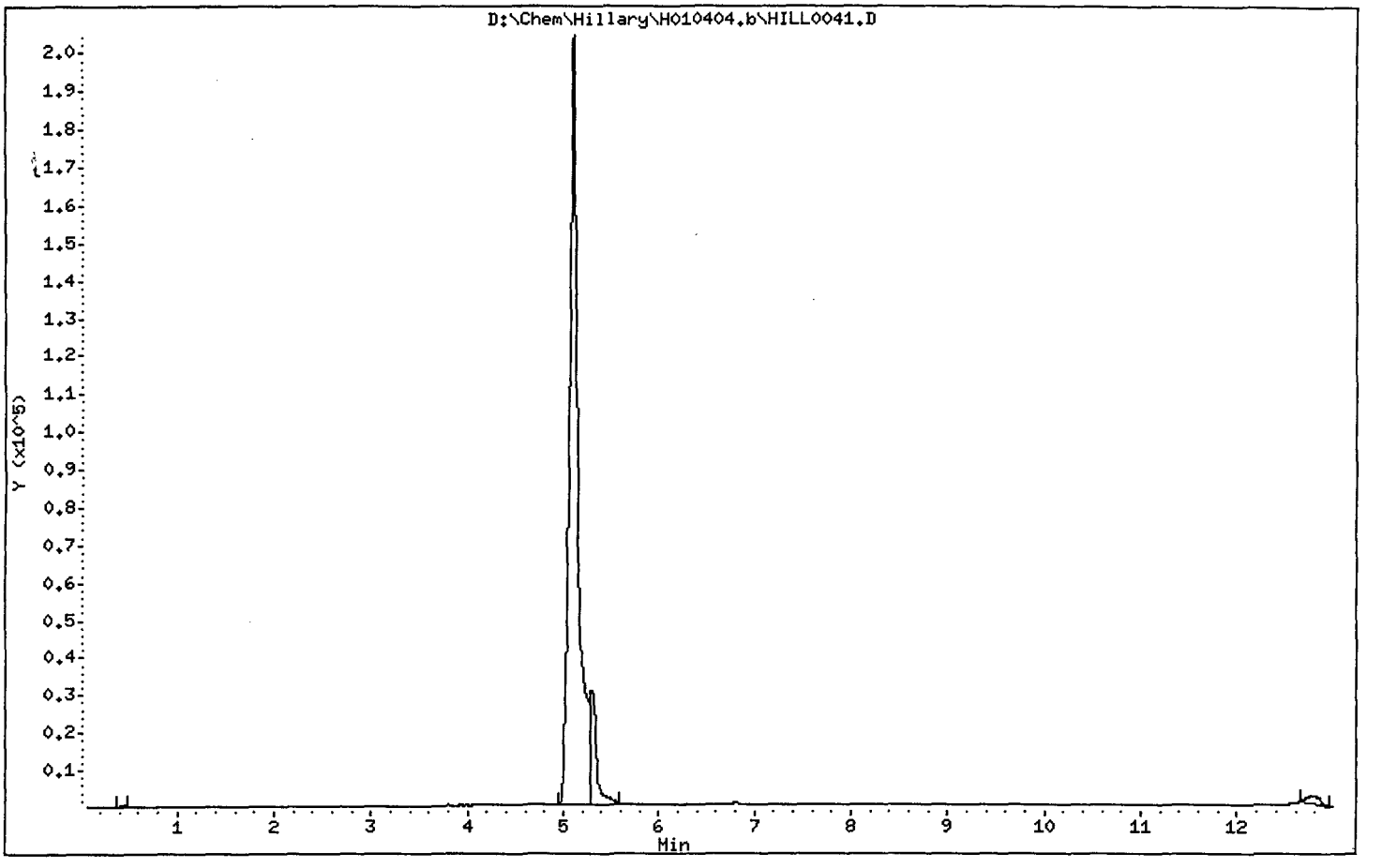
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0041.D
Lab Smp Id: 01003-07-03
Inj Date : 05-APR-2001 00:16
Operator : CMC Inst ID: hillary.i
Smp Info : 5 ng/mL PFOS in MeOH
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

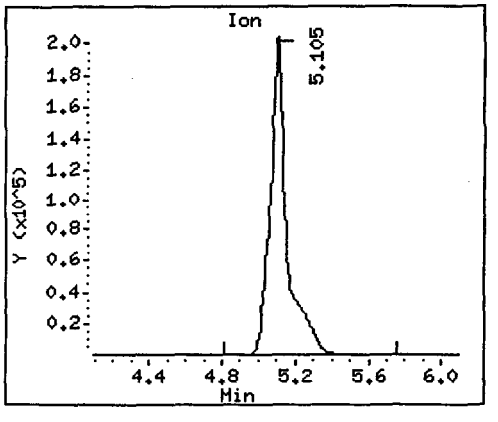
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.105	5.092	0.013	1307817	254.000	254
2 PFOS	499	5.315	5.309	0.006	101216	2.67325	2.67

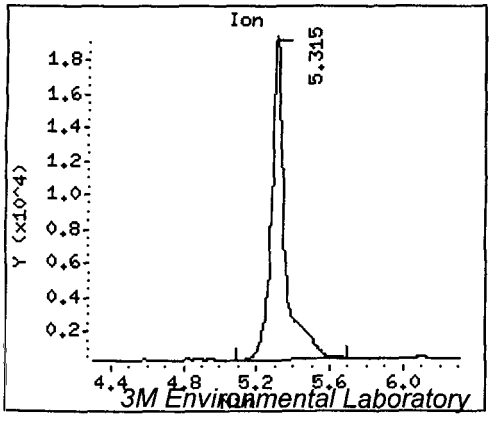
Data File: D:\Chem\Hillary\H010404.b\HILL0041.D



1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010404.b\HILL0045.D
Report Date: 09-Apr-2001 13:06

3M Environmental Laboratory

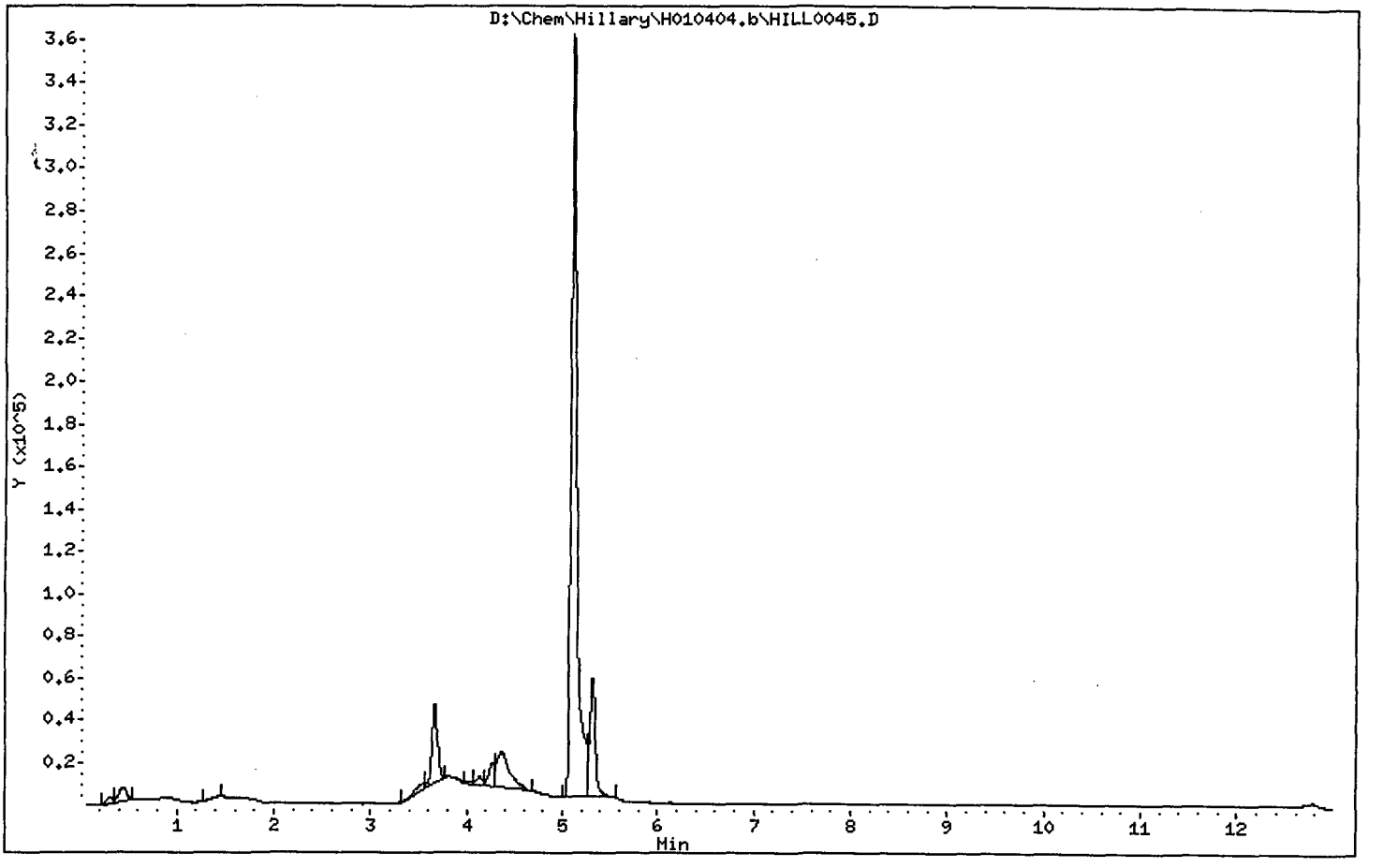
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0045.D
Lab Smp Id: 1311-4159-S1
Inj Date : 05-APR-2001 01:14
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 51
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

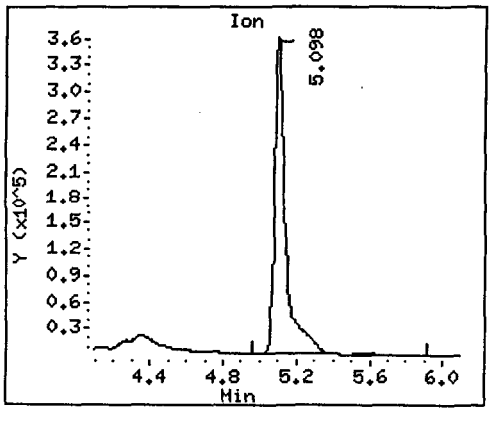
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.098	5.092	0.006	1569488	254.000	254
2 PFOS	499	5.315	5.309	0.006	202756	7.96638	7.97

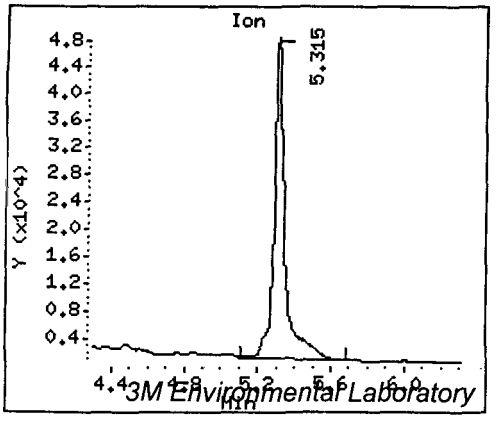
Data File: D:\Chem\Hillary\H010404.b\HILL0045.D



1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010404.b\HILL0046.D
Report Date: 09-Apr-2001 13:06

3M Environmental Laboratory

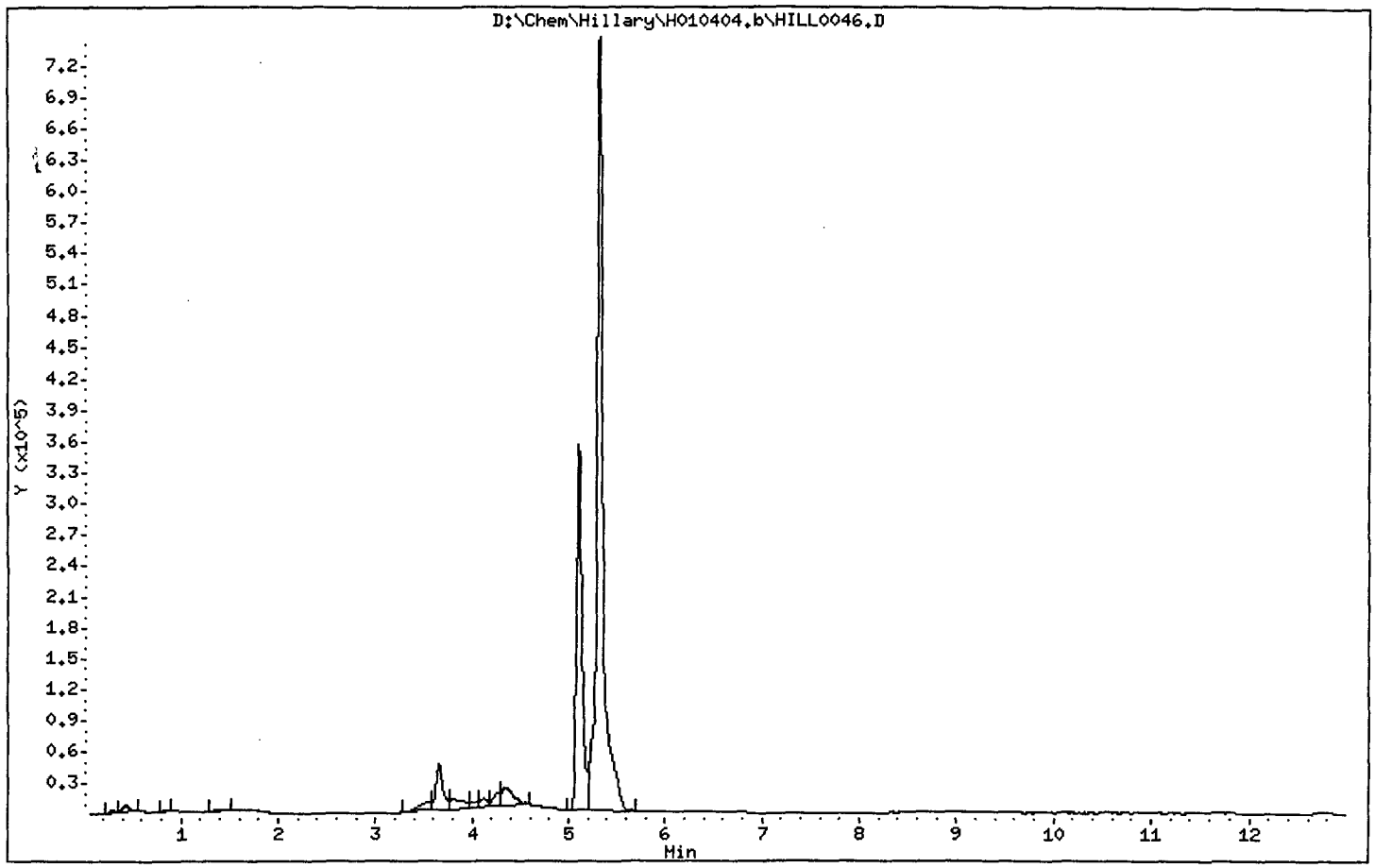
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0046.D
Lab Smp Id: 1311-4159MS-S1
Inj Date : 05-APR-2001 01:28
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 52
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

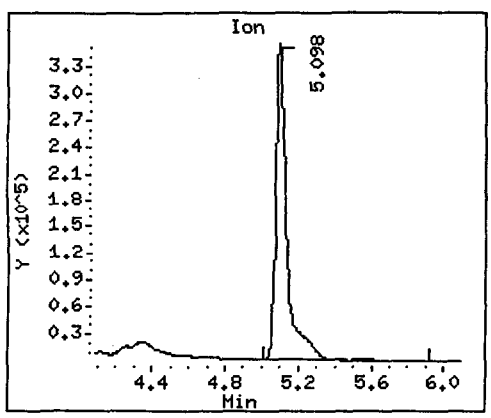
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.098	5.092	0.006	1521100	254.000	254
2 PFOS	499	5.315	5.309	0.006	3255972	173.055	173

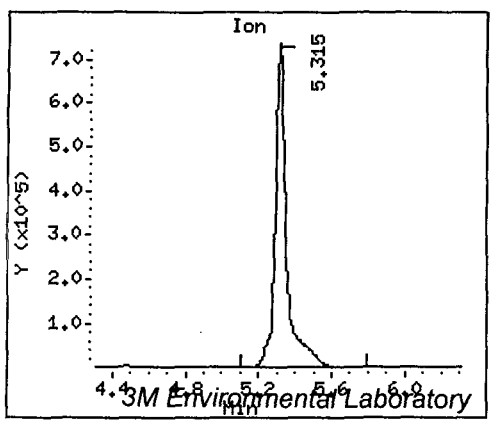
Data File: D:\Chem\Hillary\H010404.b\HILL0046.D



1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010404.b\HILL0047.D
Report Date: 09-Apr-2001 13:06

3M Environmental Laboratory

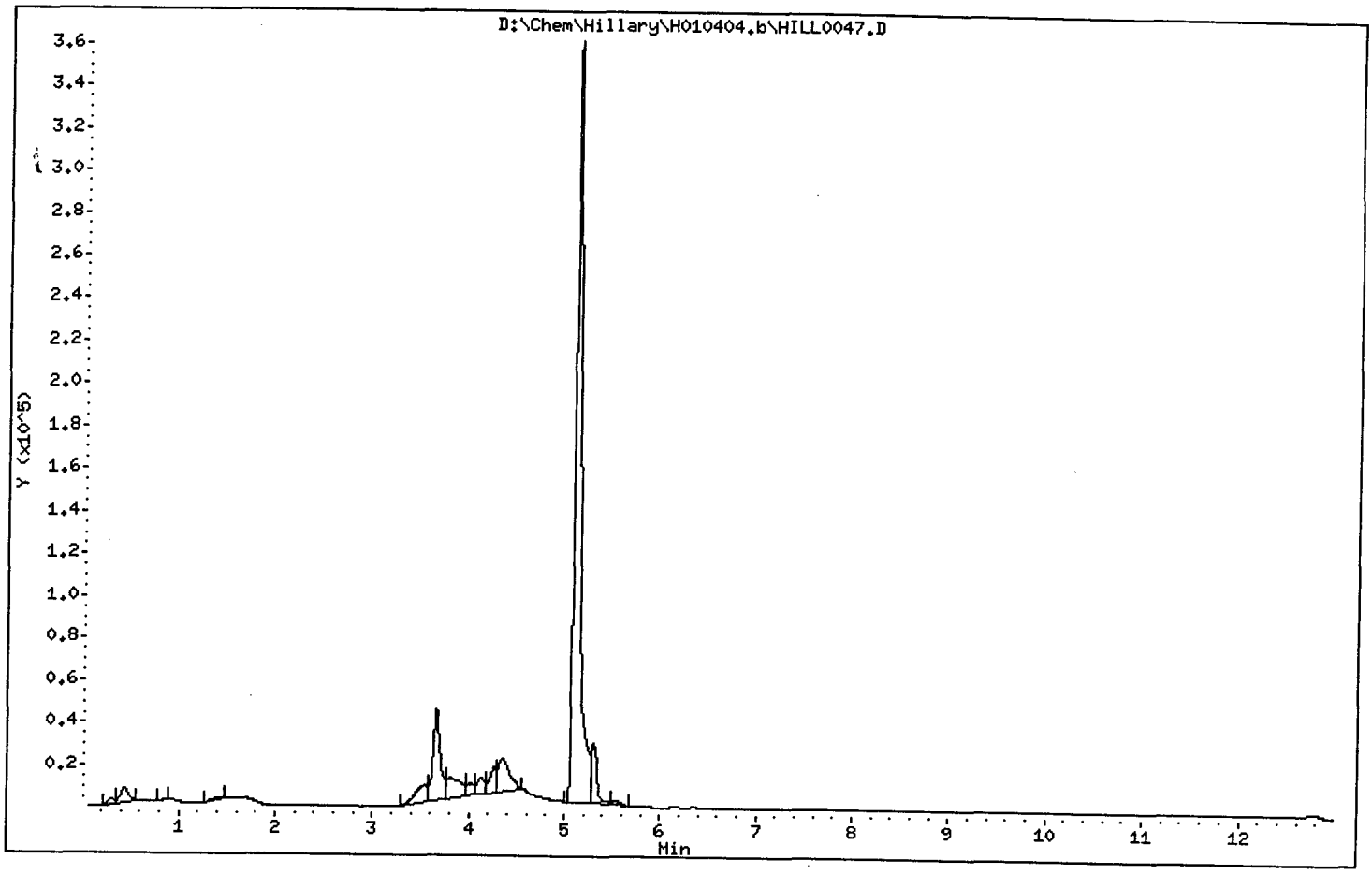
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0047.D
Lab Smp Id: 1311-4160-S1
Inj Date : 05-APR-2001 01:43
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 53
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

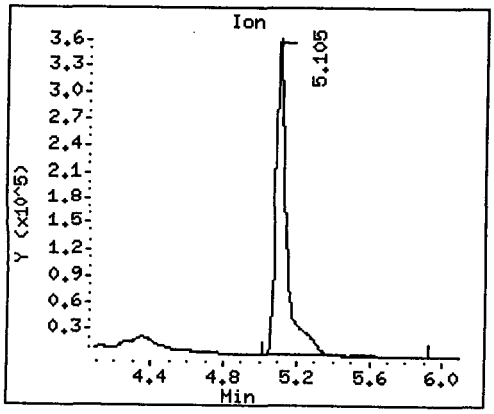
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.105	5.092	0.013	1563690	254.000	254
2 PFOS	499	5.315	5.309	0.006	80242	1.58149	1.58

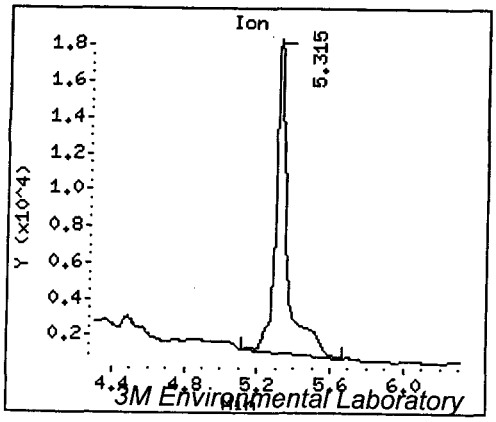
Data File: D:\Chem\Hillary\H010404.b\HILL0047.D



1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010404.b\HILL0048.D
Report Date: 09-Apr-2001 13:06

3M Environmental Laboratory

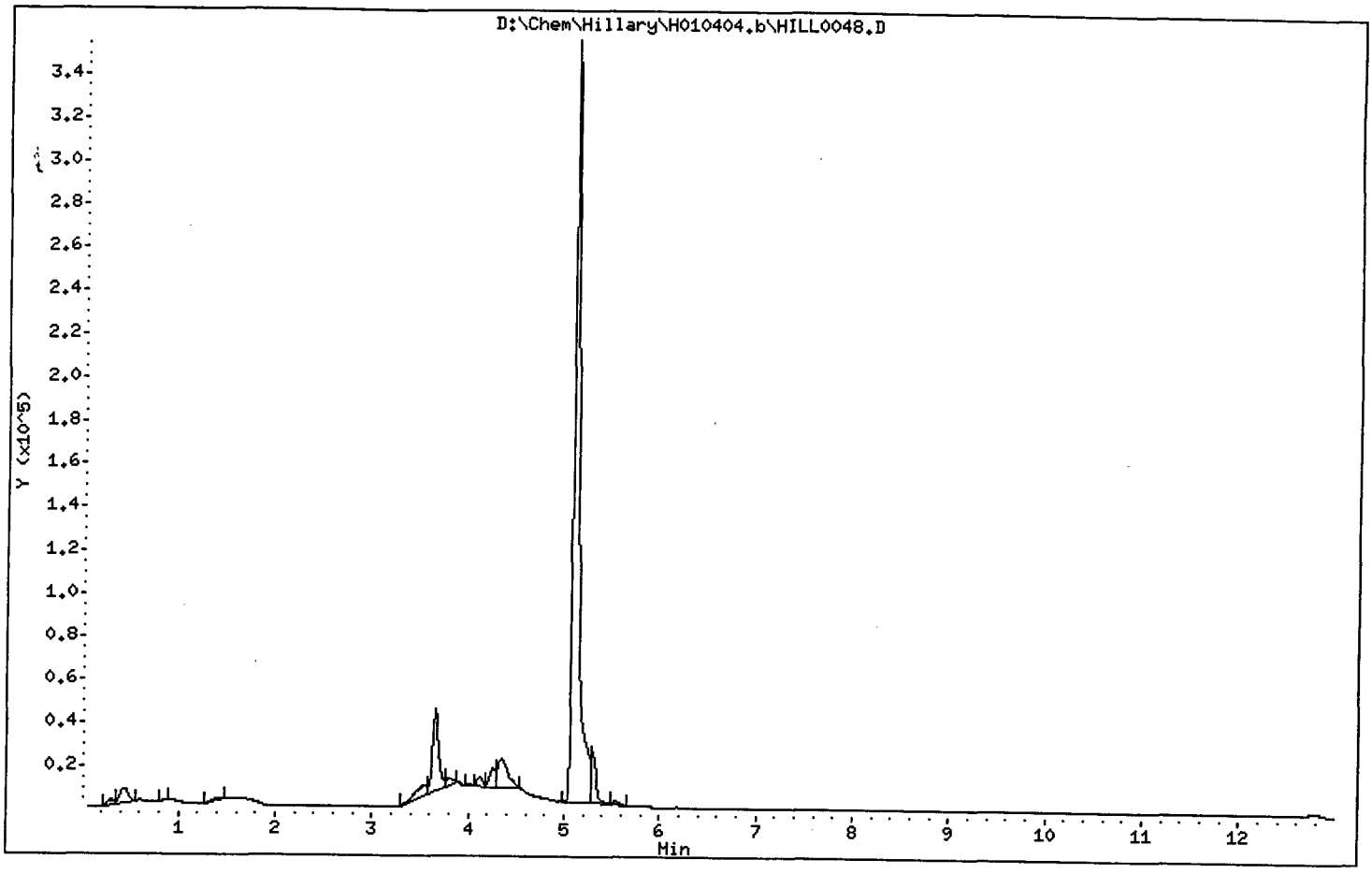
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0048.D
Lab Smp Id: 1311-4161-S1
Inj Date : 05-APR-2001 01:57
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 54
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

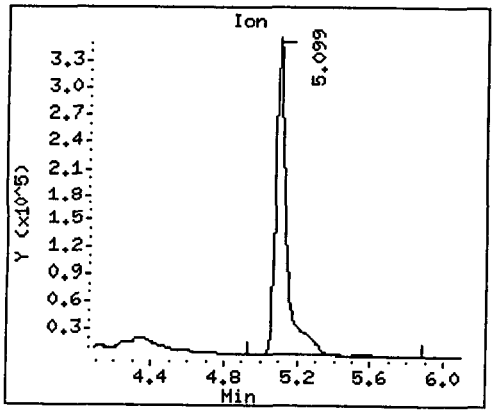
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.098	5.092	0.006	1535494	254.000	254
2 PFOS	499	Compound Not Detected.					

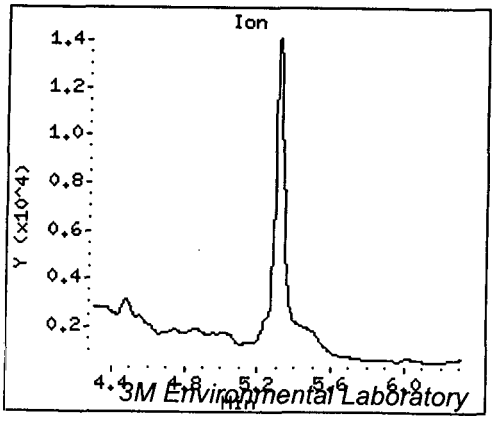
Data File: D:\Chem\Hillary\H010404.b\HILL0048.D



1 THPFOS



2 PFOS (Undetected)



Data File: D:\Chem\Hillary\H010404.b\HILL0049.D
Report Date: 09-Apr-2001 13:06

3M Environmental Laboratory

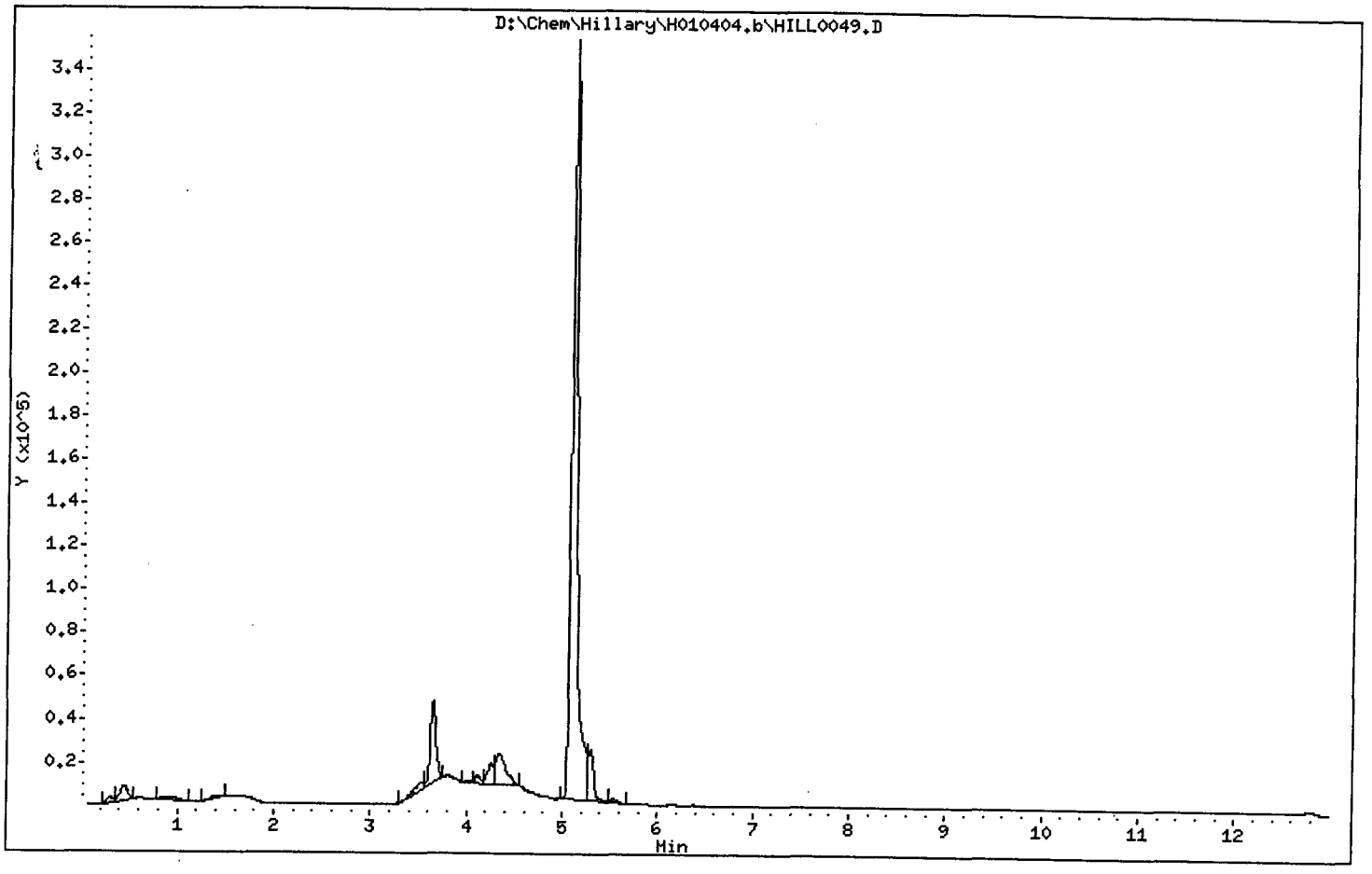
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0049.D
Lab Smp Id: 1311-4162-S1
Inj Date : 05-APR-2001 02:11
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 55
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

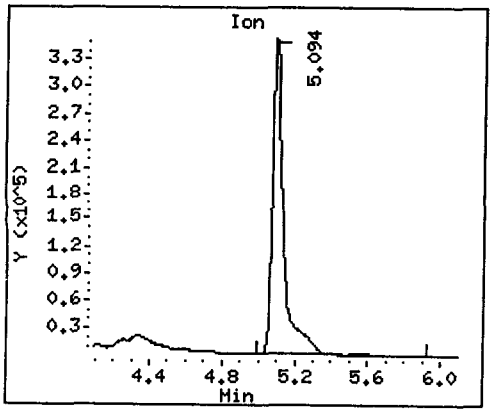
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.093	5.092	0.001	1528194	254.000	254
2 PFOS	499	Compound Not Detected.					

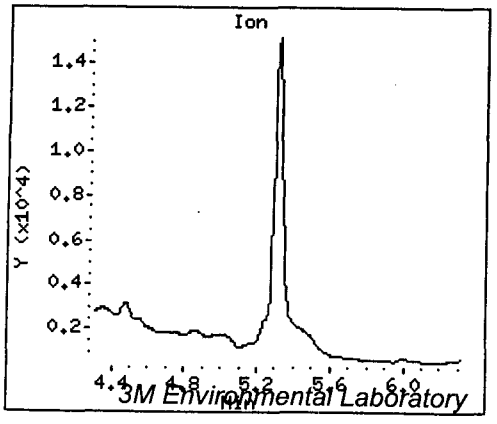
Data File: D:\Chem\Hillary\H010404.b\HILL0049.D



1 THPFOS



2 PFOS (Undetected)



Data File: D:\Chem\Hillary\H010404.b\HILL0050.D
Report Date: 09-Apr-2001 13:06

3M Environmental Laboratory

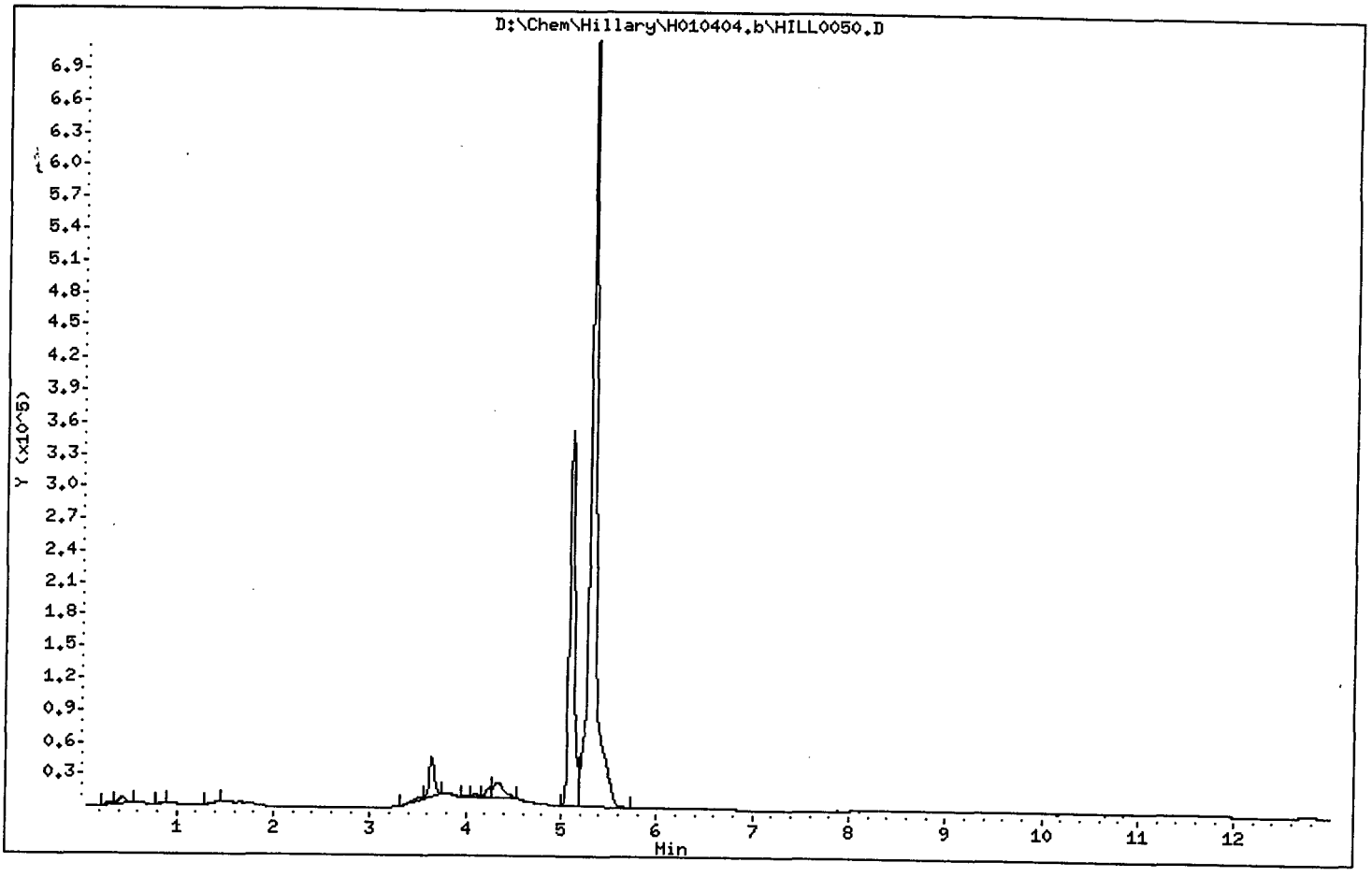
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0050.D
Lab Smp Id: 1311-4162MS-S1
Inj Date : 05-APR-2001 02:26
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 56
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

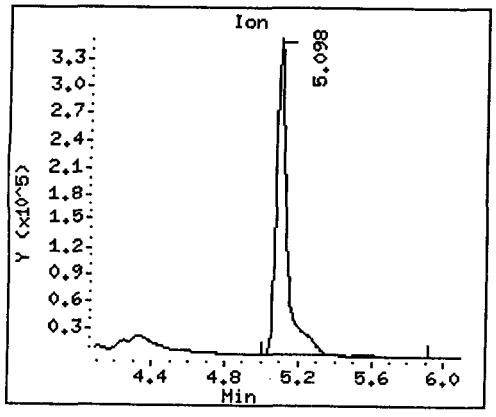
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.097	5.092	0.005	1514404	254.000	254
2 PFOS	499	5.315	5.309	0.006	3115242	165.194	165

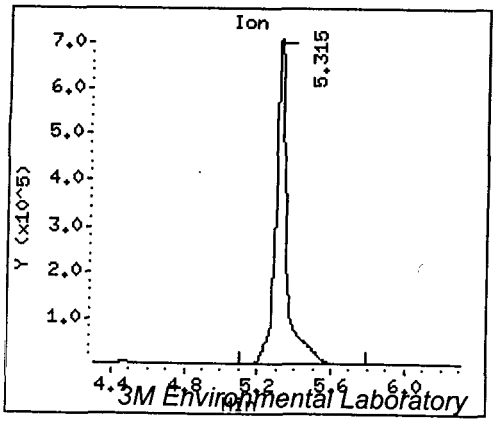
Data File: D:\Chem\Hillary\H010404.b\HILL0050.D



1 THPFOS



2 PFOS



3M Environmental Laboratory

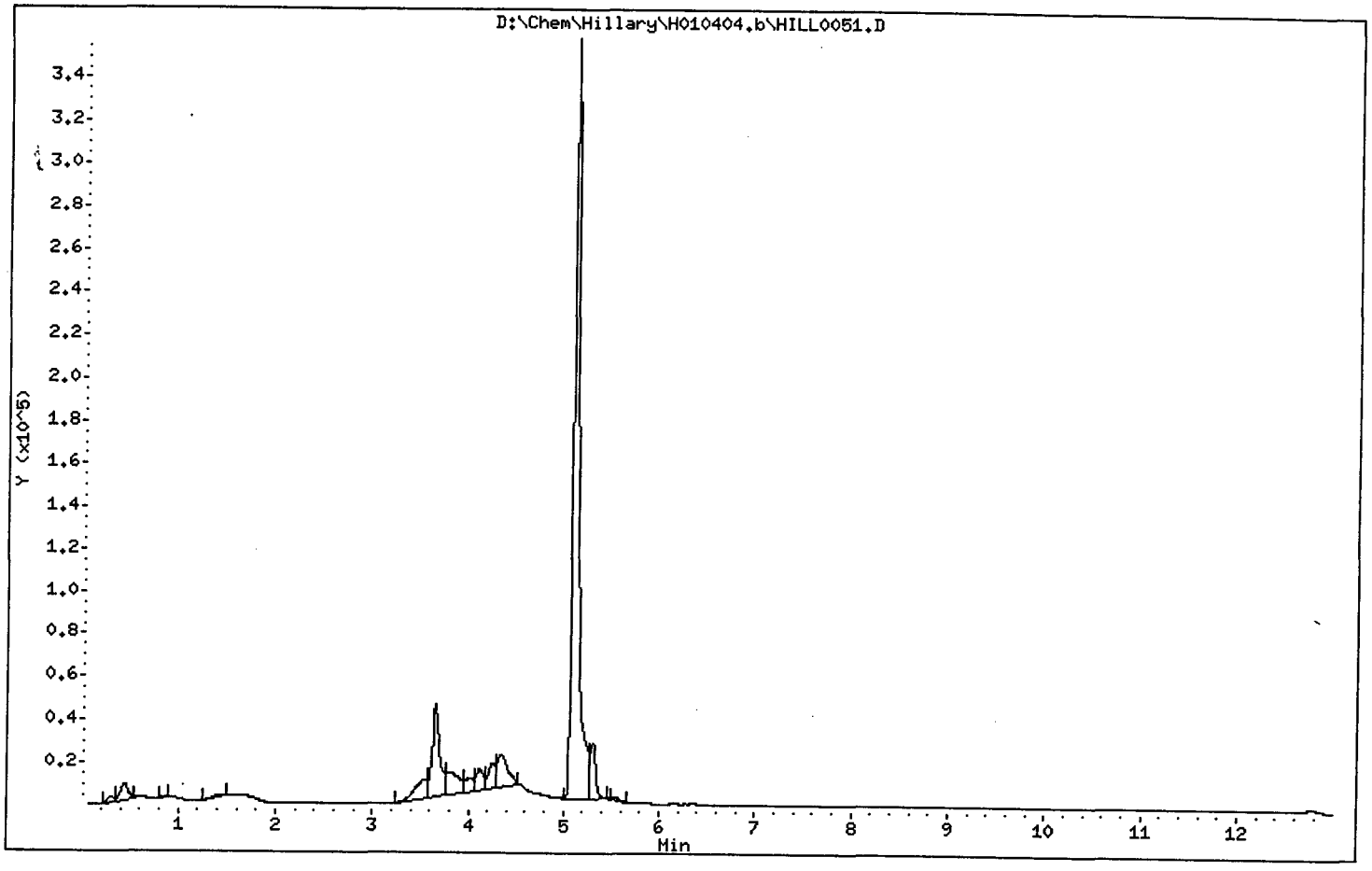
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0051.D
Lab Smp Id: 1311-4163-S1
Inj Date : 05-APR-2001 02:40
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 57
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

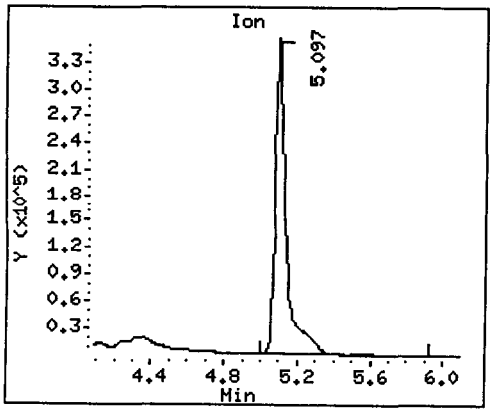
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
1 THPFOS	427	5.097	5.092	0.005	1537963	254.000	254
2 PFOS	499	5.314	5.309	0.005	76776	1.40113	1.40

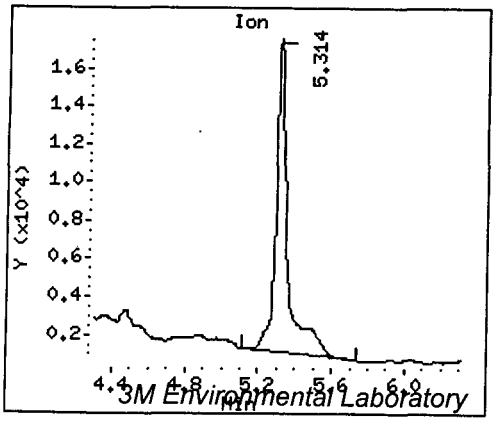
Data File: D:\Chem\Hillary\H010404.b\HILL0051.D



1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010404.b\HILL0052.D
Report Date: 09-Apr-2001 13:06

3M Environmental Laboratory

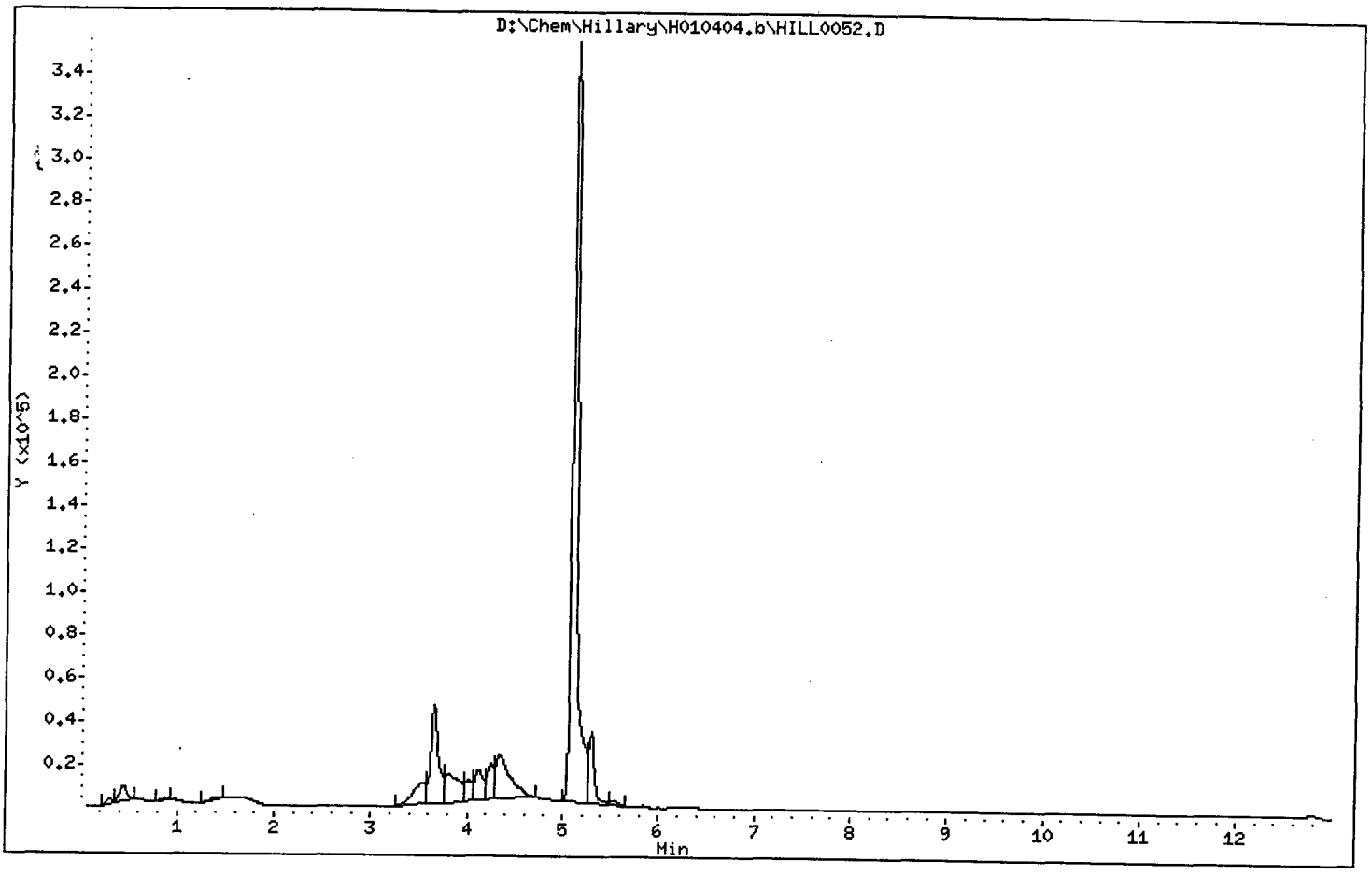
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0052.D
Lab Smp Id: 1311-4164-S1
Inj Date : 05-APR-2001 02:55
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 58
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

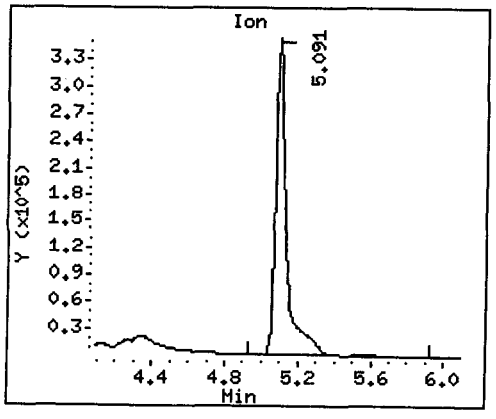
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.091	5.092	-0.001	1529992	254.000	254
2 PFOS	499	5.308	5.309	-0.001	96528	2.42918	2.43

Data File: D:\Chem\Hillary\H010404.b\HILL0052.D



1 THPFOS



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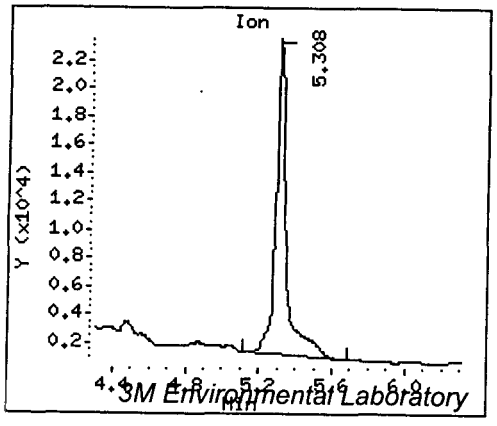


Appendix H: Raw Data Summaries

This appendix includes the raw data summary information from all the analyses conducted in the course of this study.

Data File: D:\Chem\Hillary\H010404.b\HILL0053.D
Report Date: 09-Apr-2001 13:06

3M Environmental Laboratory

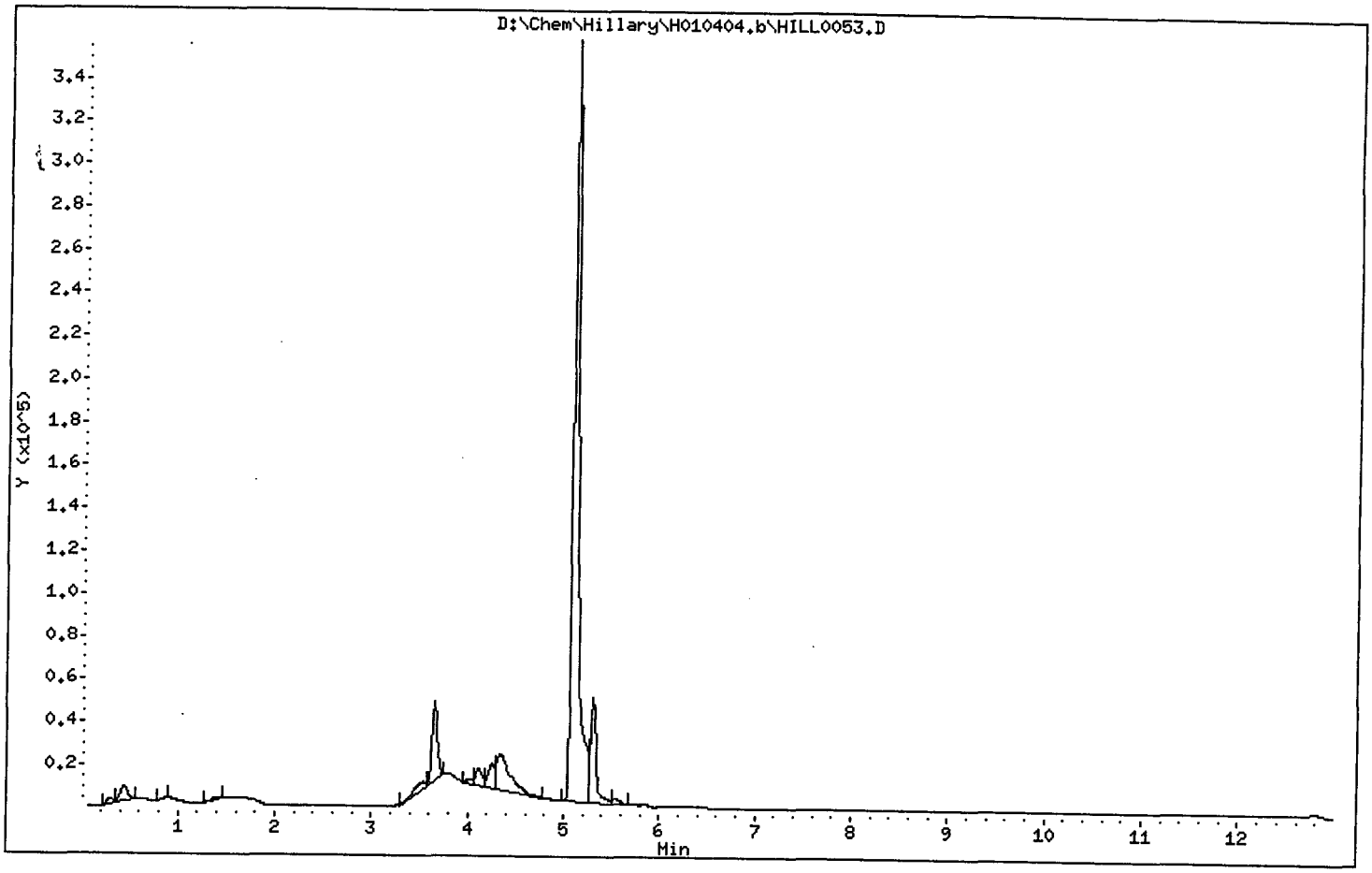
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0053.D
Lab Smp Id: 1311-4165-S1
Inj Date : 05-APR-2001 03:09
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 59
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

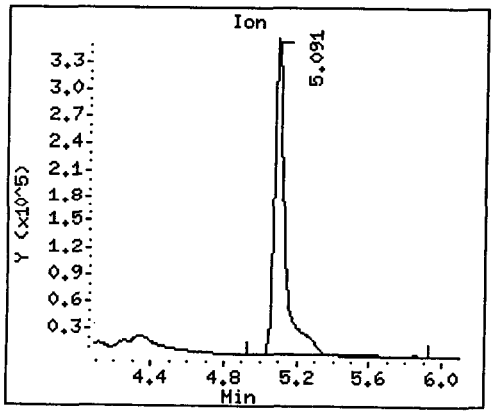
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.091	5.092	-0.001	1541462	254.000	254
2 PFOS	499	5.308	5.309	-0.001	166651	6.08283	6.08

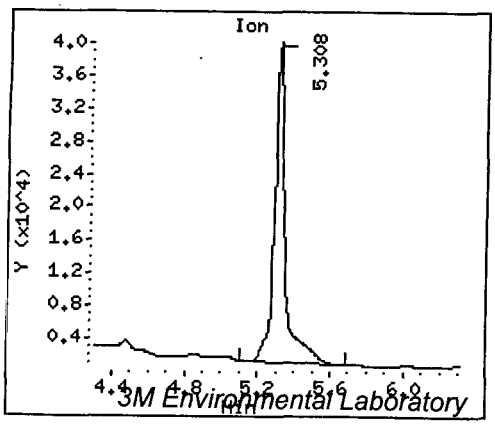
Data File: D:\Chem\Hillary\H010404.b\HILL0053.D



1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010404.b\HILL0054.D
Report Date: 09-Apr-2001 13:06

3M Environmental Laboratory

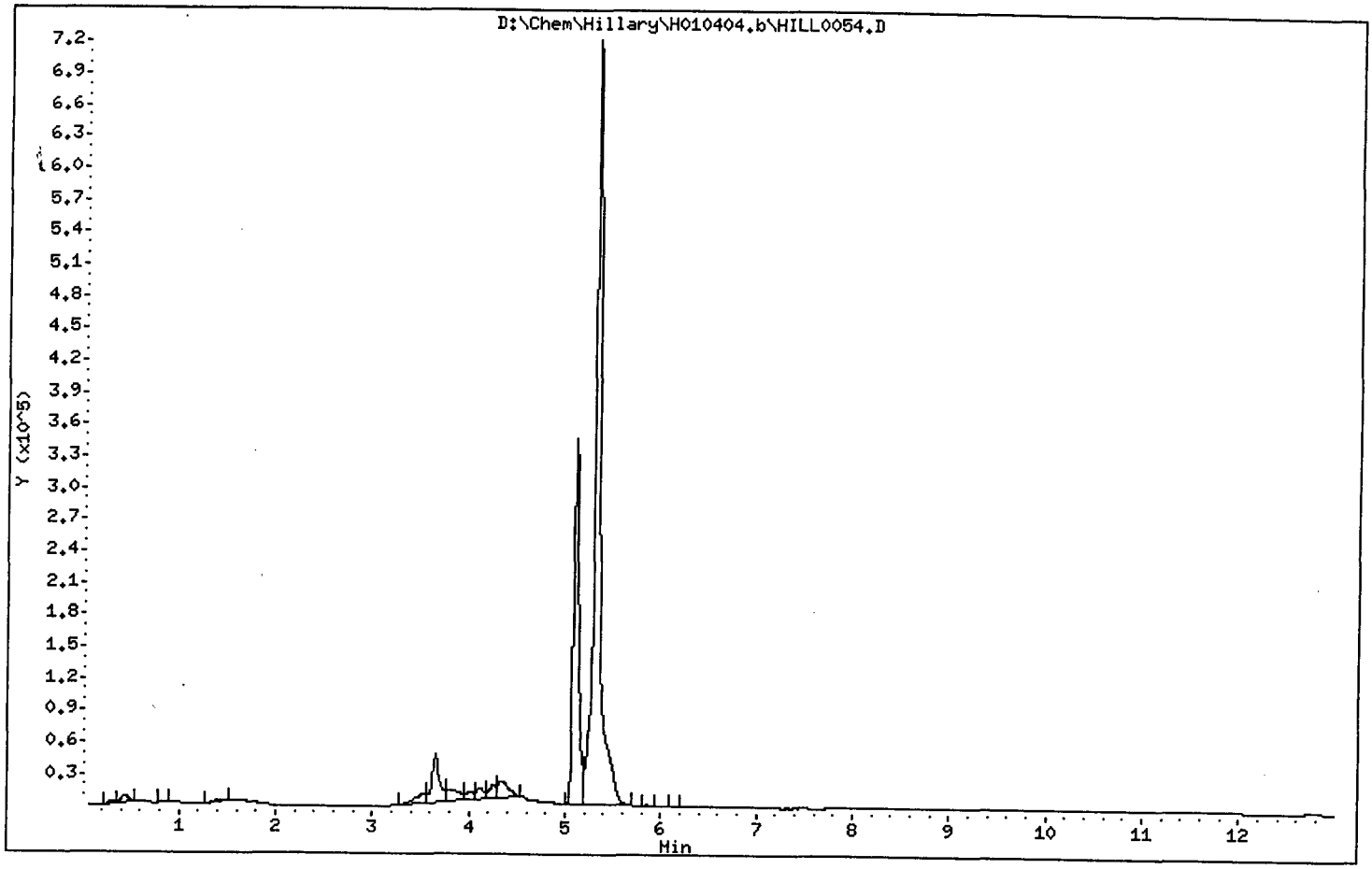
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0054.D
Lab Smp Id: 1311-4165MS-S1
Inj Date : 05-APR-2001 03:23
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 60
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

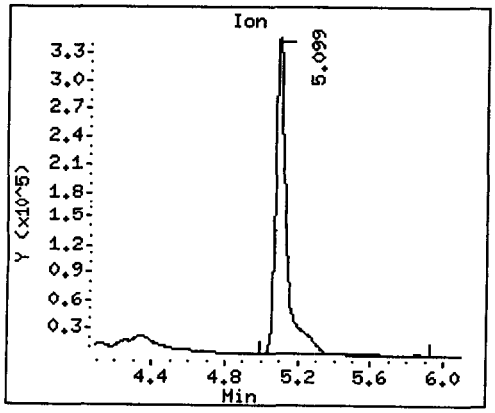
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 THPFOS	427	5.098	5.092	0.006	1500713	254.000	254
2 PFOS	499	5.308	5.309	-0.001	3133475	166.211	166

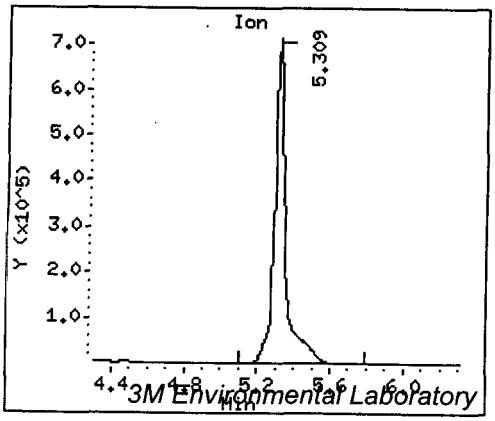
Data File: D:\Chem\Hillary\H010404.b\HILL0054.D



1 THPFOS



2 PFOS



Data File: D:\Chem\Hillary\H010404.b\HILL0059.D
Report Date: 09-Apr-2001 13:06

3M Environmental Laboratory

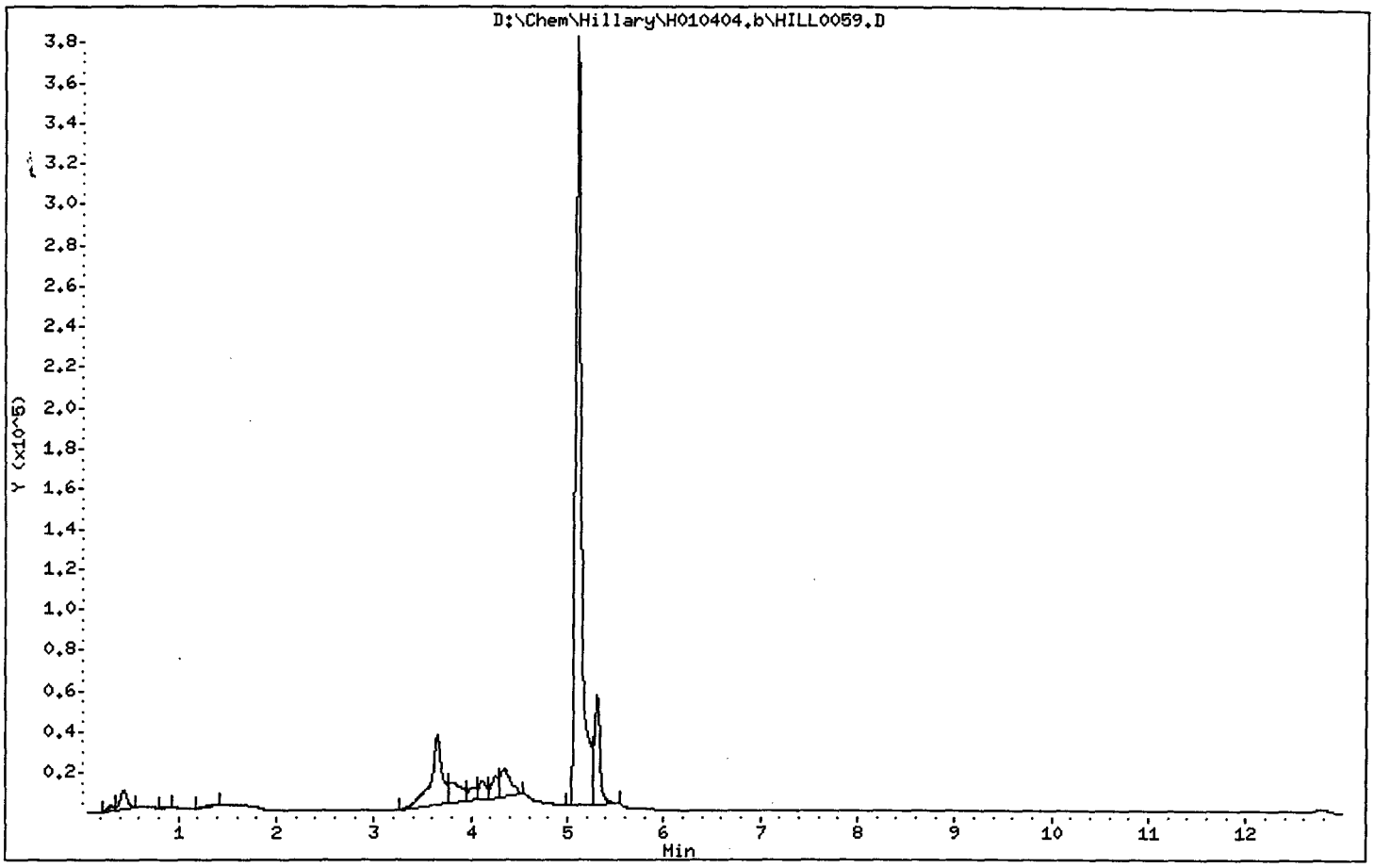
E00-1311 PFOS Adsorb/Desorb

Data file : D:\Chem\Hillary\H010404.b\HILL0059.D
Lab Smp Id: 1311-4166-S1
Inj Date : 05-APR-2001 04:35
Operator : CMC Inst ID: hillary.i
Smp Info : 5mg/L PFOS Study Number E00-1311
Misc Info :
Comment :
Method : D:\Chem\Hillary\H010404.b\H010404.m
Meth Date : 09-Apr-2001 13:02 carlson Quant Type: ESTD
Cal Date : 04-APR-2001 20:41 Cal File: HILL0026.D
Als bottle: 61
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.10
Processing Host: WW19376

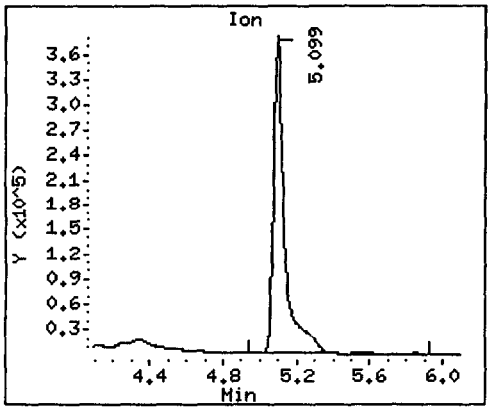
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
1 THPFOS	427	5.098	5.092	0.006	1687410	254.000	254
2 PFOS	499	5.308	5.309	-0.001	183857	6.98024	6.98

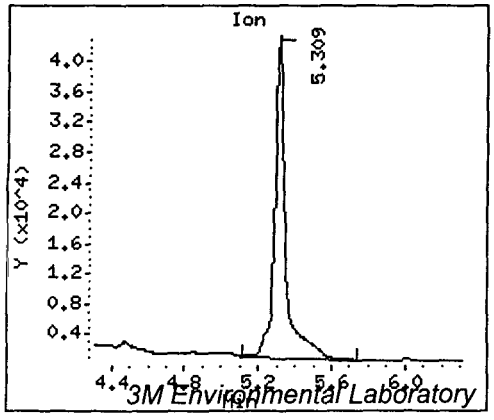
Data File: D:\Chem\Hillary\H010404.b\HILL0059.D



1 THPFOS



2 PFOS



Appendix H: Raw Data Summaries

This appendix includes the raw data summary information from all the analyses conducted in the course of this study.

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010123
Last modified: Wed Jan 24 07:48:32 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 24 06:53:49 2001
Job Code:

Printed: Wed Jan 24 07:54:16 2001

Compound 1: PFOS(499)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
1	t010122_098	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.290	149480	0.000	0.00	bb			
2	t010122_099	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.443	155378	0.000	0.00	bb			
3	t010122_100	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.241	144563	0.000	0.00	bb			
4	t010122_101	0 ppb FC Mix 00002-104-01	6.546	164749	346.252	3.79	bb			
5	t010122_102	2.5 ppb FC Mix 00002-104-02	6.278	166221	399.780	6.92	bbX	177		
6	t010122_103	5 ppb FC Mix 00002-104-03	6.309	181623	436.052	9.03	bbX	81		
7	t010122_104	10 ppb FC Mix 00002-104-04	6.452	212615	499.891	12.76	bbX	28		
8	t010122_105	25 ppb FC Mix 00002-104-05	6.486	292832	689.623	23.83	bb	-5		
9	t010122_106	40 ppb FC Mix 00002-104-06	6.460	353867	841.868	32.71	MM	-18		b
10	t010122_107	50 ppb FC Mix 00002-104-07	6.326	439196	1162.333	51.40	bb	3		
11	t010122_108	75 ppb FC Mix 00002-104-08	6.313	583060	1595.061	76.63	bb	2		
12	t010122_109	100 ppb FC Mix 00002-104-09	6.376	690084	1977.399	98.92	bb	-1		
13	t010122_110	250 ppb FC Mix 00002-104-10	6.314	1303673	4519.670	246.93	bb	-1		
14	t010122_111	500 ppb FC Mix 00002-104-11	6.229	2036643	8986.881	506.27	bb	1		
15	t010122_112	750 ppb FC Mix 00002-104-12	6.472	3108558	12406.422	704.16	MM	-6		b
16	t010122_113	1000 ppb FC Mix 00002-104-13	6.469	3415199	17167.793	978.81	bb	-2		
17	t010122_114	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.529	185076	0.000	0.00	bb			
18	t010122_115	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.436	151445	0.000	0.00	bb			
19	t010123_001	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.578	167484	0.000	0.00	bb			
20	t010123_002	10x E00-1311-3007-S2, 0mg/L PFOS,no soil..	6.406	153481	350.116	4.02	bb			
21	t010123_003	10x E00-1311-3008-S2, 0mg/L PFOS,no soil..	6.310	152060	366.988	5.00	bb			
22	t010123_004	10x E00-1311-3009-S2, 0mg/L PFOS,no soil..	6.431	157526	378.684	5.69	bb			
23	t010123_005	10x E00-1311-3009ms-S2, 0mg/L PFOS,no so..	6.468	1093934	3271.735	174.31	bb			
24	t010123_006	10x E00-1311-3010-S2, 5mg/L PFOS,no soil..	6.458	161601	382.904	5.93	bb			
25	t010123_007	250 ppb FC Mix 00002-104-10	6.386	1278160	4385.279	239.11	bb	-4		
26	t010123_008	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.254	144604	0.000	0.00	bb			
27	t010123_009	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.568	162354	0.000	0.00	bb			
28	t010123_010	10x E00-1311-3011-S2, 5mg/L PFOS,no soil..	6.157	147959	341.086	3.49	bb			
29	t010123_011	10x E00-1311-3012-S2, 0mg/L PFOS,no soil..	6.097	123999	273.510	0.00	bb			
30	t010123_012	10x E00-1311-3012ms-S2, 0mg/L PFOS,no so..	6.117	1142929	3615.037	194.29	bb			
31	t010123_013	10x E00-1311-3022-S2, 0mg/L PFOS,1:1 cla..	6.121	167082	341.722	3.53	bb			
32	t010123_014	10x E00-1311-3023-S2, 0mg/L PFOS,1:1 cla..	6.119	120568	255.127	0.00	bb			
33	t010123_015	250 ppb FC Mix 00002-104-10	6.098	1461557	4623.544	252.97	bb	1		
34	t010123_016	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.108	120451	0.000	0.00	bb			
35	t010123_017	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.119	130250	0.000	0.00	bb			
36	t010123_018	10x E00-1311-3024-S2, 0mg/L PFOS,1:1 cla..	6.362	158587	347.233	3.85	bb			
37	t010123_019	10x E00-1311-3024ms-S2, 0mg/L PFOS,1:1 c..	6.502	1212317	3198.718	170.06	MM			b
38	t010123_020	10x E00-1311-3025-S2, 0mg/L PFOS,1:5 cla..	6.106	127365	260.600	0.00	bb			
39	t010123_021	10x E00-1311-3026-S2, 0mg/L PFOS,1:5 cla..	6.119	139236	292.171	0.64	bb			
40	t010123_022	10x E00-1311-3027-S2, 0mg/L PFOS,1:5 cla..	6.106	125310	251.422	0.00	bb			
41	t010123_023	250 ppb FC Mix 00002-104-10	6.109	1458323	4339.379	236.44	bb	-5		
42	t010123_024	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.131	95010	0.000	0.00	bb			
43	t010123_025	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.124	96165	0.000	0.00	bb			
44	t010123_026	10x E00-1311-3027ms-S2, 0mg/L PFOS,1:5 c..	6.420	967775	2502.035	129.49	bb			
45	t010123_027	10x E00-1311-3028-S2, 0mg/L PFOS,1:25 cl..	6.455	166690	376.511	5.56	bb			
46	t010123_028	10x E00-1311-3029-S2, 0mg/L PFOS,1:25 cl..	6.392	166376	382.084	5.88	bb			
47	t010123_029	10x E00-1311-3030-S2, 0mg/L PFOS,1:25 cl..	6.230	148831	335.207	3.15	bb			
48	t010123_030	10x E00-1311-3030ms-S2, 0mg/L PFOS,1:25 ..	6.529	1212415	2936.432	154.79	MM			b
49	t010123_031	250 ppb FC Mix 00002-104-10	6.155	1329455	4518.724	246.87	bb	-1		
50	t010123_032	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.403	154776	0.000	0.00	bb			
51	t010123_033	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.514	165352	0.000	0.00	bb			
52	t010123_034	10x E00-1311-3094-S2, 5mg/L PFOS,1:1 cla..	6.256	919833	1916.324	95.36	bb			
53	t010123_035	10x E00-1311-3095-S2, 5mg/L PFOS,1:1 cla..	6.531	1105460	2217.788	112.93	bb			
54	t010123_036	10x E00-1311-3096-S2, 5mg/L PFOS,1:1 cla..	6.423	1302358	3017.893	159.53	bb			
55	t010123_037	10x E00-1311-3096ms-S2, 5mg/L PFOS,1:1 c..	6.350	2227419	6774.423	377.94	bb			
56	t010123_038	10x E00-1311-3097-S2, 5mg/L PFOS,1:5 cla..	6.375	1351396	3087.088	163.56	bb			
57	t010123_039	250 ppb FC Mix 00002-104-10	6.218	1295576	4505.026	246.08	bb	-2		
58	t010123_040	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.432	163488	0.000	0.00	bb			
59	t010123_041	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.299	155335	0.000	0.00	bb			
60	t010123_042	10x E00-1311-3098-S2, 5mg/L PFOS,1:5 cla..	6.253	1338917	3282.293	174.93	bb			
61	t010123_043	10x E00-1311-3098ms-S2, 5mg/L PFOS,1:5 c..	6.251	2190122	7297.900	408.33	bb			
62	t010123_044	10x E00-1311-3100-S2, 5mg/L PFOS,1:25 cl..	6.322	3728466	8481.570	476.98	bb			
63	t010123_045	10x E00-1311-3101-S2, 5mg/L PFOS,1:25 cl..	6.253	3779124	9225.336	520.09	bb			
64	t010123_046	10x E00-1311-3102-S2, 5mg/L PFOS,1:25 cl..	6.410	3814147	8899.134	501.18	bb			
65	t010123_047	250 ppb FC Mix 00002-104-10	6.302	1341100	4483.275	244.81	bb	-2		
66	t010123_048	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.411	166983	0.000	0.00	bb			
67	t010123_049	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.447	166594	0.000	0.00	bb			
68	t010123_050	10x E00-1311-3102ms-S2, 5mg/L PFOS,1:25 ..	6.190	4547300	15741.143	896.63	bb			
69	t010123_051	10x E00-1311-3166-S2, 5mg/L PFOS,1:1 Sed..	6.182	873870	1707.559	83.19	bb			
70	t010123_052	10x E00-1311-31668-S2, 5mg/L PFOS,1:1 Se..	6.203	1003813	1998.291	100.14	bb			
71	t010123_053	10x E00-1311-3168-S2, 5mg/L PFOS,1:1 Sed..	6.120	582014	1165.110	51.56	bb			
72	t010123_054	10x E00-1311-3168ms-S2, 5mg/L PFOS,1:1 S..	6.074	1618471	4449.399	242.84	bb			
73	t010123_055	250 ppb FC Mix 00002-104-10	6.349	1337470	3739.611	201.55	bb	-19		
74	t010123_056	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.384	171733	0.000	0.00	bb			
75	t010123_057	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.382	174436	0.000	0.00	bb			
76	t010123_058	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.156	154736	0.000	0.00	bb			
77	t010123_059	0 ppb FC Mix 00002-104-01	6.159	107657	218.235	0.00	bb			
78	t010123_060	2.5 ppb FC Mix 00002-104-02	6.457	179721	380.367	5.78	bbX	131		
79	t010123_061	5 ppb FC Mix 00002-104-03	6.431	196874	456.559	10.23	bbX	105		
80	t010123_062	10 ppb FC Mix 00002-104-04	6.408	231081	546.187	15.46	bbX	55		
81	t010123_063	25 ppb FC Mix 00002-104-05	6.396	314548	754.734	27.63	bb	11		
82	t010123_064	40 ppb FC Mix 00002-104-06	6.355	396613	988.034	41.24	bb	3		

① Sequence t010123 was started immediatly following t010122, using the last Curve of that run as the first run of this Sequence. (AC) CMC 4-19-01

Quantitated and Printed by CMC on 24 Jan 01 Study # E00-1311

CMC 1/24/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010123
Last modified: Wed Jan 24 07:48:32 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 24 06:53:49 2001
Job Code:

Printed: Wed Jan 24 07:54:16 2001

Compound 1: PFOS(499)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
83	t010123_065	50 ppb FC Mix 00002-104-07	6.303	463216	1186.763	52.83	bb	6		
84	t010123_066	75 ppb FC Mix 00002-104-08	6.374	623373	1561.132	74.65	bb	-0		
85	t010123_067	100 ppb FC Mix 00002-104-09	6.300	740153	1995.565	99.98	bb	-0		
86	t010123_068	250 ppb FC Mix 00002-104-10	6.340	1392032	4451.828	242.98	bb	-3		
87	t010123_069	500 ppb FC Mix 00002-104-11	6.150	2222555	9308.893	524.93	bb	5		
88	t010123_070	750 ppb FC Mix 00002-104-12	6.163	3363541	13449.481	764.42	bb	2		
89	t010123_071	1000 ppb FC Mix 00002-104-13	6.156	4161343	18086.088	1031.66	bb	3		
90	t010123_072	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.164	137404	0.000	0.00	bb			
91	t010123_073	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.141	141494	0.000	0.00	bb			

Quantitated and Printed by CMC on 24 Jan 01 Study # E00-1311

CMC 1/24/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010123
Last modified: Wed Jan 24 07:48:32 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 24 06:53:49 2001
Job Code:

Printed: Wed Jan 24 07:54:16 2001

Compound 2: I.S.(TH-PFOS)(427)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
1	t010122_098	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.242	691	690.849	1.95	bb			
2	t010122_099	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.383	560	560.268	1.58	bb			
3	t010122_100	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.192	661	660.914	1.87	bb			
4	t010122_101	0 ppb FC Mix 00002-104-01	6.389	118951	118951.328	336.00	bb	34		
5	t010122_102	2.5 ppb FC Mix 00002-104-02	6.217	103945	103945.063	293.61	bb	17		
6	t010122_103	5 ppb FC Mix 00002-104-03	6.249	104129	104129.148	294.13	bb	18		
7	t010122_104	10 ppb FC Mix 00002-104-04	6.367	106331	106330.531	300.35	bb	20		
8	t010122_105	25 ppb FC Mix 00002-104-05	6.390	106157	106156.602	299.85	bb	20		
9	t010122_106	40 ppb FC Mix 00002-104-06	6.232	105084	105083.742	296.82	bb	19		
10	t010122_107	50 ppb FC Mix 00002-104-07	6.266	94464	94464.391	266.83	bb	7		
11	t010122_108	75 ppb FC Mix 00002-104-08	6.253	91385	91385.258	258.13	bb	3		
12	t010122_109	100 ppb FC Mix 00002-104-09	6.316	87246	87246.352	246.44	bb	-1		
13	t010122_110	250 ppb FC Mix 00002-104-10	6.266	72111	72111.070	203.69	bb	-19		
14	t010122_111	500 ppb FC Mix 00002-104-11	6.181	56656	56656.000	160.03	bb	-36		
15	t010122_112	750 ppb FC Mix 00002-104-12	6.231	62640	62640.102	176.94	bb	-29		
16	t010122_113	1000 ppb FC Mix 00002-104-13	6.385	49733	49732.637	140.48	bb	-44		
17	t010122_114	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.240	951	951.098	2.69	bb			
18	t010122_115	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.363	553	552.916	1.56	bd			
19	t010123_001	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.988	548	547.605	1.55	bb			
20	t010123_002	10x E00-1311-3007-S2, 0mg/L PFOS,no soil..	6.334	109593	109593.180	309.56	bb	24		
21	t010123_003	10x E00-1311-3008-S2, 0mg/L PFOS,no soil..	6.250	103586	103586.234	292.59	bb	17		
22	t010123_004	10x E00-1311-3009-S2, 0mg/L PFOS,no soil..	6.346	103996	103995.594	293.75	bb	18		
23	t010123_005	10x E00-1311-3009ms-S2, 0mg/L PFOS,no so..	6.383	83590	83589.734	236.11	bb	-6		
24	t010123_006	10x E00-1311-3010-S2, 5mg/L PFOS,no soil..	6.374	105510	105510.461	298.03	bb	19		
25	t010123_007	250 ppb FC Mix 00002-104-10	6.326	72867	72866.516	205.82	bb	-18		
26	t010123_008	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.193	675	675.222	1.91	bd			
27	t010123_009	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
28	t010123_010	10x E00-1311-3011-S2, 5mg/L PFOS,no soil..	6.097	108447	108447.039	306.32	bb	23		
29	t010123_011	10x E00-1311-3012-S2, 0mg/L PFOS,no soil..	6.037	113341	113340.656	320.15	bb	28		
30	t010123_012	10x E00-1311-3012ms-S2, 0mg/L PFOS,no so..	6.069	79040	79039.930	223.26	bb	-11		
31	t010123_013	10x E00-1311-3022-S2, 0mg/L PFOS,1:1 cla..	6.061	122235	122235.211	345.27	bb	38		
32	t010123_014	10x E00-1311-3023-S2, 0mg/L PFOS,1:1 cla..	6.047	118145	118145.313	333.72	bb	33		
33	t010123_015	250 ppb FC Mix 00002-104-10	6.049	79028	79027.961	223.23	bb	-11		
34	t010123_016	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.048	1325	1325.487	3.74	bb			
35	t010123_017	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.059	1759	1758.722	4.97	bb			
36	t010123_018	10x E00-1311-3024-S2, 0mg/L PFOS,1:1 cla..	6.146	114179	114179.469	322.52	bb	29		
37	t010123_019	10x E00-1311-3024ms-S2, 0mg/L PFOS,1:1 c..	6.393	94750	94750.258	267.64	bb	7		
38	t010123_020	10x E00-1311-3025-S2, 0mg/L PFOS,1:5 cla..	6.046	122184	122184.172	345.13	bb	38		
39	t010123_021	10x E00-1311-3026-S2, 0mg/L PFOS,1:5 cla..	6.046	119139	119139.492	336.53	bb	35		
40	t010123_022	10x E00-1311-3027-S2, 0mg/L PFOS,1:5 cla..	6.046	124601	124601.102	351.95	bb	41		
41	t010123_023	250 ppb FC Mix 00002-104-10	6.037	84017	84016.813	237.32	bb	-5		
42	t010123_024	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.046	1533	1532.789	4.33	bb			
43	t010123_025	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.040	1451	1451.493	4.10	bb			
44	t010123_026	10x E00-1311-3027ms-S2, 0mg/L PFOS,1:5 c..	6.191	96699	96698.766	273.14	bb	9		
45	t010123_027	10x E00-1311-3028-S2, 0mg/L PFOS,1:25 cl..	6.371	110681	110680.852	312.63	bb	25		
46	t010123_028	10x E00-1311-3029-S2, 0mg/L PFOS,1:25 cl..	6.308	108861	108861.070	307.49	bb	23		
47	t010123_029	10x E00-1311-3030-S2, 0mg/L PFOS,1:25 cl..	6.170	110999	110999.164	313.53	bb	25		
48	t010123_030	10x E00-1311-3030ms-S2, 0mg/L PFOS,1:25 ..	6.336	103222	103221.789	291.57	bb	17		
49	t010123_031	250 ppb FC Mix 00002-104-10	6.119	73553	73552.547	207.76	bb	-17		
50	t010123_032	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.175	1245	1245.197	3.52	bb			
51	t010123_033	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.418	531	530.664	1.50	bb			
52	t010123_034	10x E00-1311-3094-S2, 5mg/L PFOS,1:1 cla..	6.112	120000	119999.648	338.96	bb	36		
53	t010123_035	10x E00-1311-3095-S2, 5mg/L PFOS,1:1 cla..	6.290	124613	124612.836	351.99	bb	41		
54	t010123_036	10x E00-1311-3096-S2, 5mg/L PFOS,1:1 cla..	6.351	107886	107886.336	304.74	bb	22		
55	t010123_037	10x E00-1311-3096ms-S2, 5mg/L PFOS,1:1 c..	6.289	82200	82199.563	232.18	bb	-7		
56	t010123_038	10x E00-1311-3097-S2, 5mg/L PFOS,1:5 cla..	6.303	109439	109439.414	309.13	bb	24		
57	t010123_039	250 ppb FC Mix 00002-104-10	6.169	71896	71896.141	203.08	bb	-19		
58	t010123_040	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
59	t010123_041	MeOH Blank, TN-A-4740, Aliq. 12/04/00	7.166	4534	4533.709	12.81	bb			
60	t010123_042	10x E00-1311-3098-S2, 5mg/L PFOS,1:5 cla..	6.205	101980	101980.344	288.06	bb	15		
61	t010123_043	10x E00-1311-3098ms-S2, 5mg/L PFOS,1:5 c..	6.202	75026	75025.750	211.92	bb	-15		
62	t010123_044	10x E00-1311-3100-S2, 5mg/L PFOS,1:25 cl..	6.262	109899	109899.039	310.43	bb	24		
63	t010123_045	10x E00-1311-3101-S2, 5mg/L PFOS,1:25 cl..	6.204	102412	102411.563	289.28	bb	16		
64	t010123_046	10x E00-1311-3102-S2, 5mg/L PFOS,1:25 cl..	6.338	107149	107149.367	302.66	bb	21		
65	t010123_047	250 ppb FC Mix 00002-104-10	6.254	74784	74783.500	211.24	bb	-16		
66	t010123_048	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.350	661	661.374	1.87	bb			
67	t010123_049	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.387	520	520.055	1.47	bb			
68	t010123_050	10x E00-1311-3102ms-S2, 5mg/L PFOS,1:25 ..	6.142	72220	72219.969	204.00	bb	-18		
69	t010123_051	10x E00-1311-3166-S2, 5mg/L PFOS,1:1 Sed..	6.086	127941	127941.430	361.39	bb	45		
70	t010123_052	10x E00-1311-31668-S2, 5mg/L PFOS,1:1 Se..	6.095	125584	125583.922	354.73	bb	42		
71	t010123_053	10x E00-1311-3168-S2, 5mg/L PFOS,1:1 Sed..	6.060	124884	124883.797	352.75	bb	41		
72	t010123_054	10x E00-1311-3168ms-S2, 5mg/L PFOS,1:1 S..	6.025	90938	90937.609	256.87	bb	3		
73	t010123_055	250 ppb FC Mix 00002-104-10	6.156	89412	89412.344	252.56	bb	1		
74	t010123_056	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.312	677	676.734	1.91	bb			
75	t010123_057	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.322	595	595.368	1.68	bb			
76	t010123_058	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.095	2000	2000.157	5.65	bb			
77	t010123_059	0 ppb FC Mix 00002-104-01	6.063	123326	123326.328	348.35	bb	39		
78	t010123_060	2.5 ppb FC Mix 00002-104-02	6.179	118124	118123.727	333.66	bb	33		
79	t010123_061	5 ppb FC Mix 00002-104-03	6.346	107803	107803.281	304.51	bb	22		
80	t010123_062	10 ppb FC Mix 00002-104-04	6.335	105770	105770.016	298.76	bb	20		
81	t010123_063	25 ppb FC Mix 00002-104-05	6.324	104192	104191.516	294.30	bb	18		
82	t010123_064	40 ppb FC Mix 00002-104-06	6.294	100354	100354.180	283.47	bb	13		

Quantitated and Printed by CMC on 24 Jan 01 Study # E00-1311

CMC 1/24/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010123
Last modified: Wed Jan 24 07:48:32 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 24 06:53:49 2001
Job Code:

Printed: Wed Jan 24 07:54:16 2001

Compound 2: I.S.(TH-PFOS)(427)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
83	t010123_065	50 ppb FC Mix 00002-104-07	6.242	97580	97579.789	275.63	bb	10		
84	t010123_066	75 ppb FC Mix 00002-104-08	6.302	99827	99827.031	281.98	bb	13		
85	t010123_067	100 ppb FC Mix 00002-104-09	6.251	92725	92724.766	261.91	bb	5		
86	t010123_068	250 ppb FC Mix 00002-104-10	6.279	78172	78171.930	220.81	bb	-12		
87	t010123_069	500 ppb FC Mix 00002-104-11	6.102	59689	59689.027	168.60	bb	-33		
88	t010123_070	750 ppb FC Mix 00002-104-12	6.091	62522	62521.754	176.60	bb	-29		
89	t010123_071	1000 ppb FC Mix 00002-104-13	6.095	57521	57521.328	162.48	bb	-35		
90	t010123_072	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.092	1502	1502.362	4.24	bb			
91	t010123_073	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.069	1802	1801.890	5.09	bb			

Quantitated and Printed by CMC on 24 Jan 01 Study # E00-1311

CMC 1/24/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010124
Last modified: Wed Jan 24 08:14:06 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 24 06:53:49 2001
Job Code:

Printed: Thu Jan 25 07:47:21 2001

Compound 1: PFOS(499)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
1	t010123_057	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.382	174436	0.000	0.00	bb			
2	t010123_058	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.156	154736	0.000	0.00	bb			
3	t010123_059	0 ppb FC Mix 00002-104-01	6.159	107657	218.235	7.77	bb			
4	t010123_060	2.5 ppb FC Mix 00002-104-02	6.457	179721	380.367	16.28	bbX	551		
5	t010123_061	5 ppb FC Mix 00002-104-03	6.431	196874	456.559	20.28	bbX	306		
6	t010123_062	10 ppb FC Mix 00002-104-04	6.408	231081	546.187	24.99	bbX	150		
7	t010123_063	25 ppb FC Mix 00002-104-05	6.396	314548	754.734	35.96	bbX	44		
8	t010123_064	40 ppb FC Mix 00002-104-06	6.355	396613	988.034	48.27	bb	21		
9	t010123_065	50 ppb FC Mix 00002-104-07	6.303	463216	1186.763	58.76	bb	18		
10	t010123_066	75 ppb FC Mix 00002-104-08	6.374	623373	1561.132	78.59	bb	5		
11	t010123_067	100 ppb FC Mix 00002-104-09	6.300	740153	1995.565	101.69	bb	2		
12	t010123_068	250 ppb FC Mix 00002-104-10	6.340	1392032	4451.828	234.06	bb	-6		
13	t010123_069	500 ppb FC Mix 00002-104-11	6.150	2222555	9308.893	505.39	bb	1		
14	t010123_070	750 ppb FC Mix 00002-104-12	6.163	3363541	13449.481	748.03	bb	-0		
15	t010123_071	1000 ppb FC Mix 00002-104-13	6.156	4161343	18086.088	1034.13	bb	3		
16	t010123_072	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.164	137404	0.000	0.00	bb			
17	t010123_073	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.141	141494	0.000	0.00	bb			
18	t010124_001	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.622	329160	0.000	0.00	bb			
19	t010124_002	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.174	148405	0.000	0.00	bb			
20	t010124_003	10x E00-1311-3169-S2, 0.5mg/L PFOS,1:5 S..	6.555	2008353	3570.085	186.19	bb			
21	t010124_004	10x E00-1311-3170-S2, 0.5mg/L PFOS,1:5 S..	6.124	2978378	6104.627	324.90	bb			
22	t010124_005	10x E00-1311-3171-S2, 0.5mg/L PFOS,1:5 S..	6.325	2091729	4018.001	210.45	bb			
23	t010124_006	10x E00-1311-3171ms-S2, 0.5mg/L PFOS,1:5..	6.122	3089729	8684.097	469.73	bb			
24	t010124_007	10x E00-1311-3172-S2, 0.5mg/L PFOS,1:25 ..	6.542	2749532	5030.908	265.72	bb			
25	t010124_008	250 ppb FC Mix 00002-104-10	6.098	1690139	4406.001	231.56	bb	-7		
26	t010124_009	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.541	211382	0.000	0.00	bb			
27	t010124_010	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.265	186560	0.000	0.00	bb			
28	t010124_011	10x E00-1311-3173-S2, 0.5mg/L PFOS,1:25 ..	6.540	2974252	5340.462	282.72	bb			
29	t010124_012	10x E00-1311-3174-S2, 0.5mg/L PFOS,1:25 ..	6.253	2789063	5395.878	285.76	bb			
30	t010124_013	10x E00-1311-3174ms-S2, 0.5mg/L PFOS,1:2..	6.533	3375943	7580.041	407.27	bb			
31	t010124_014	10x E00-1311-3184-S2, 0mg/L PFOS,1:1 Sed..	6.227	174753	331.804	13.73	bb			
32	t010124_015	10x E00-1311-3185-S2, 0mg/L PFOS,1:1 Sed..	6.483	183066	351.811	14.78	bb			
33	t010124_016	250 ppb FC Mix 00002-104-10	6.278	1492375	4495.674	236.45	bb	-5		
34	t010124_017	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.409	185832	0.000	0.00	bb			
35	t010124_018	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.328	192377	0.000	0.00	bb			
36	t010124_019	10x E00-1311-3186-S2, 0mg/L PFOS,1:1 Sed..	6.317	189635	378.275	16.17	bb			
37	t010124_020	10x E00-1311-3186ms-S2, 0mg/L PFOS,1:1 S..	6.507	1332791	3109.357	161.33	bb			
38	t010124_021	10x E00-1311-3187-S2, 0mg/L PFOS,1:5 Sed..	6.290	190604	369.223	15.69	bb			
39	t010124_022	10x E00-1311-3188-S2, 0mg/L PFOS,1:5 Sed..	6.580	202180	369.266	15.70	bb			
40	t010124_023	10x E00-1311-3189-S2, 0mg/L PFOS,1:5 Sed..	6.216	176278	344.860	14.42	bb			
41	t010124_024	250 ppb FC Mix 00002-104-10	6.420	1440653	4259.849	223.60	bb	-11		
42	t010124_025	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.218	166888	0.000	0.00	bb			
43	t010124_026	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.565	209975	0.000	0.00	bb			
44	t010124_027	10x E00-1311-3189ms-S2, 0mg/L PFOS,1:5 S..	6.386	1789138	3571.515	186.26	bb			
45	t010124_028	10x E00-1311-3190-S2, 0mg/L PFOS,1:25 Se..	6.361	201659	408.113	17.74	bb			
46	t010124_029	10x E00-1311-3191-S2, 0mg/L PFOS,1:25 Se..	6.218	177442	343.872	14.36	bb			
47	t010124_030	10x E00-1311-3192-S2, 0mg/L PFOS,1:25 Se..	6.592	202407	372.116	15.85	bb			
48	t010124_031	10x E00-1311-3192ms-S2, 0mg/L PFOS,1:25 ..	6.193	1351244	3603.727	188.01	bb			
49	t010124_032	250 ppb FC Mix 00002-104-10	6.543	1589633	3743.216	195.55	MM	-22	b	
50	t010124_033	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.528	188064	0.000	0.00	bb			
51	t010124_034	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.204	173176	0.000	0.00	bb			
52	t010124_035	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.375	189146	0.000	0.00	bb			
53	t010124_036	0 ppb FC Mix 00002-104-01	6.123	107963	223.595	8.05	bb			
54	t010124_037	2.5 ppb FC Mix 00002-104-02	6.402	195139	442.196	19.53	bbX	681		
55	t010124_038	5 ppb FC Mix 00002-104-03	6.134	170706	359.205	15.17	bbX	203		
56	t010124_039	10 ppb FC Mix 00002-104-04	6.159	230314	504.877	22.82	bbX	128		
57	t010124_040	25 ppb FC Mix 00002-104-05	6.541	325950	684.561	32.27	bbX	29		
58	t010124_041	40 ppb FC Mix 00002-104-06	6.086	393053	913.309	44.32	bb	11		
59	t010124_042	50 ppb FC Mix 00002-104-07	6.363	426687	1007.082	49.27	bb	-1		
60	t010124_043	75 ppb FC Mix 00002-104-08	6.111	615435	1636.708	82.61	bb	10		
61	t010124_044	100 ppb FC Mix 00002-104-09	6.516	678046	1616.410	81.53	bb	-18		
62	t010124_045	250 ppb FC Mix 00002-104-10	6.121	1475797	4437.320	233.27	bb	-7		
63	t010124_046	500 ppb FC Mix 00002-104-11	6.325	2194012	9228.069	500.77	bb	0		
64	t010124_047	750 ppb FC Mix 00002-104-12	6.121	3224378	13956.302	778.52	bb	4		
65	t010124_048	1000 ppb FC Mix 00002-104-13	6.360	3953019	16771.422	951.32	bb	-5		
66	t010124_049	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.118	137693	0.000	0.00	bb			
67	t010124_050	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.553	185417	0.000	0.00	bb			

① (AC) Sequence t010124 started immediately after t010124, using the former 2nd curve as the new 1st curve cmc 4-19-01

Quantitated and Printed by CMC on 25 Jan 01 Study # E00-1311

cmc 1/25/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010124
Last modified: Wed Jan 24 08:14:06 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 24 06:53:49 2001
Job Code:

Printed: Thu Jan 25 07:47:21 2001

Compound 2: I.S.(TH-PFOS)(427)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
1	t010123_057	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.322	595	595.368	1.61	bb			
2	t010123_058	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.095	2000	2000.157	5.41	bb			
3	t010123_059	0 ppb FC Mix 00002-104-01	6.063	123326	123326.328	333.59	bb	33		
4	t010123_060	2.5 ppb FC Mix 00002-104-02	6.179	118124	118123.727	319.52	bb	28		
5	t010123_061	5 ppb FC Mix 00002-104-03	6.346	107803	107803.281	291.60	bb	17		
6	t010123_062	10 ppb FC Mix 00002-104-04	6.335	105770	105770.016	286.10	bb	14		
7	t010123_063	25 ppb FC Mix 00002-104-05	6.324	104192	104191.516	281.83	bb	13		
8	t010123_064	40 ppb FC Mix 00002-104-06	6.294	100354	100354.180	271.45	bb	9		
9	t010123_065	50 ppb FC Mix 00002-104-07	6.242	97580	97579.789	263.95	bb	6		
10	t010123_066	75 ppb FC Mix 00002-104-08	6.302	99827	99827.031	270.03	bb	8		
11	t010123_067	100 ppb FC Mix 00002-104-09	6.251	92725	92724.766	250.82	bb	0		
12	t010123_068	250 ppb FC Mix 00002-104-10	6.279	78172	78171.930	211.45	bb	-15		
13	t010123_069	500 ppb FC Mix 00002-104-11	6.102	59689	59689.027	161.46	bb	-35		
14	t010123_070	750 ppb FC Mix 00002-104-12	6.091	62522	62521.754	169.12	bb	-32		
15	t010123_071	1000 ppb FC Mix 00002-104-13	6.095	57521	57521.328	155.59	bb	-38		
16	t010123_072	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.092	1502	1502.362	4.06	bb			
17	t010123_073	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.069	1802	1801.890	4.87	bb			
18	t010124_001	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.067	846	846.302	2.29	bb			
19	t010124_002	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.102	1760	1759.649	4.76	bb			
20	t010124_003	10x E00-1311-3169-S2, 0.5mg/L PFOS,1:5 S..	6.338	140638	140637.594	380.42	bb	52		
21	t010124_004	10x E00-1311-3170-S2, 0.5mg/L PFOS,1:5 S..	6.075	121972	121972.141	329.93	bb	32		
22	t010124_005	10x E00-1311-3171-S2, 0.5mg/L PFOS,1:5 S..	6.144	130147	130147.320	352.04	bb	41		
23	t010124_006	10x E00-1311-3171ms-S2, 0.5mg/L PFOS,1:5..	6.073	88948	88947.891	240.60	bb	-4		
24	t010124_007	10x E00-1311-3172-S2, 0.5mg/L PFOS,1:25 ..	6.301	136632	136631.984	369.58	bb	48		
25	t010124_008	250 ppb FC Mix 00002-104-10	6.038	95900	95899.828	259.41	bb	4		
26	t010124_009	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.420	566	566.227	1.53	bb			
27	t010124_010	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.157	1457	1456.896	3.94	bb			
28	t010124_011	10x E00-1311-3173-S2, 0.5mg/L PFOS,1:25 ..	6.396	139232	139231.969	376.62	bb	51		
29	t010124_012	10x E00-1311-3174-S2, 0.5mg/L PFOS,1:25 ..	6.145	129222	129221.938	349.54	bb	40		
30	t010124_013	10x E00-1311-3174ms-S2, 0.5mg/L PFOS,1:2..	6.280	111343	111343.148	301.18	bb	20		
31	t010124_014	10x E00-1311-3184-S2, 0mg/L PFOS,1:1 Sed..	6.131	131669	131668.844	356.16	bb	42		
32	t010124_015	10x E00-1311-3185-S2, 0mg/L PFOS,1:1 Sed..	6.206	130088	130088.313	351.88	bb	41		
33	t010124_016	250 ppb FC Mix 00002-104-10	6.230	82989	82989.492	224.48	bb	-10		
34	t010124_017	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.192	704	703.963	1.90	bb			
35	t010124_018	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
36	t010124_019	10x E00-1311-3186-S2, 0mg/L PFOS,1:1 Sed..	6.161	125329	125328.508	339.01	bb	36		
37	t010124_020	10x E00-1311-3186ms-S2, 0mg/L PFOS,1:1 S..	6.387	107160	107159.664	289.86	bb	16		
38	t010124_021	10x E00-1311-3187-S2, 0mg/L PFOS,1:5 Sed..	6.145	129058	129057.625	349.10	bb	40		
39	t010124_022	10x E00-1311-3188-S2, 0mg/L PFOS,1:5 Sed..	6.351	136880	136879.719	370.25	bb	48		
40	t010124_023	10x E00-1311-3189-S2, 0mg/L PFOS,1:5 Sed..	6.120	127790	127789.961	345.67	bb	38		
41	t010124_024	250 ppb FC Mix 00002-104-10	6.347	84548	84548.352	228.70	bb	-9		
42	t010124_025	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.122	1735	1735.427	4.69	bb			
43	t010124_026	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.408	722	721.528	1.95	bb			
44	t010124_027	10x E00-1311-3189ms-S2, 0mg/L PFOS,1:5 S..	6.192	125237	125236.625	338.76	bb	36		
45	t010124_028	10x E00-1311-3190-S2, 0mg/L PFOS,1:25 Se..	6.277	123531	123531.180	334.15	bb	34		
46	t010124_029	10x E00-1311-3191-S2, 0mg/L PFOS,1:25 Se..	6.122	129002	129002.477	348.95	bb	40		
47	t010124_030	10x E00-1311-3192-S2, 0mg/L PFOS,1:25 Se..	6.315	135984	135984.188	367.83	bb	47		
48	t010124_031	10x E00-1311-3192ms-S2, 0mg/L PFOS,1:25 ..	6.121	93739	93739.367	253.56	bb	1		
49	t010124_032	250 ppb FC Mix 00002-104-10	6.338	106168	106167.570	287.18	bb	15		
50	t010124_033	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.239	913	913.271	2.47	bb			
51	t010124_034	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.131	1535	1535.103	4.15	bb			
52	t010124_035	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.315	521	521.492	1.41	bb			
53	t010124_036	0 ppb FC Mix 00002-104-01	6.039	120713	120713.117	326.52	bb	31		
54	t010124_037	2.5 ppb FC Mix 00002-104-02	6.329	110324	110323.898	298.42	bb	19		
55	t010124_038	5 ppb FC Mix 00002-104-03	6.074	118808	118807.953	321.37	bb	29		
56	t010124_039	10 ppb FC Mix 00002-104-04	6.051	114045	114044.594	308.49	bb	23		
57	t010124_040	25 ppb FC Mix 00002-104-05	6.323	119036	119036.070	321.99	bb	29		
58	t010124_041	40 ppb FC Mix 00002-104-06	6.037	107590	107590.352	291.03	bb	16		
59	t010124_042	50 ppb FC Mix 00002-104-07	6.170	105922	105921.656	286.51	bb	15		
60	t010124_043	75 ppb FC Mix 00002-104-08	6.074	94005	94005.047	254.28	bb	2		
61	t010124_044	100 ppb FC Mix 00002-104-09	6.275	104869	104869.109	283.67	bb	13		
62	t010124_045	250 ppb FC Mix 00002-104-10	6.048	83147	83146.836	224.91	bb	-10		
63	t010124_046	500 ppb FC Mix 00002-104-11	6.264	59439	59438.539	160.78	bb	-36		
64	t010124_047	750 ppb FC Mix 00002-104-12	6.049	57758	57758.453	156.23	bb	-38		
65	t010124_048	1000 ppb FC Mix 00002-104-13	6.167	58925	58924.914	159.39	bb	-36		
66	t010124_049	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.046	1483	1482.589	4.01	bb			
67	t010124_050	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.252	612	612.205	1.66	bb			

Quantitated and Printed by CMC on 25 Jan 01 Study # E00-1311

CMC 1/25/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010125
Last modified: Thu Jan 25 10:45:39 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 31 07:38:20 2001
Job Code:

Printed: Wed Jan 31 07:42:18 2001

Compound 1: PFOS(499)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
1	t010125_001	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.450	831200	831200.000	125.20	bb			
2	t010125_002	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.241	296143	296143.250	9.40	bb			
3	t010125_003	1000 ppb FC Mix 00002-104-13	6.119	5181707	5181707.000	1495.43	bb	50		
4	t010125_004	1000 ppb FC Mix 00002-104-13	6.542	5239732	5239732.000	1527.47	bb	53		
5	t010125_005	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.108	251789	251788.984	0.05	bb			
6	t010125_006	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.543	296161	296161.125	9.40	bb			
7	t010125_007	0 ppb FC Mix 00002-104-01	6.121	190383	190383.219	0.00	bb			
8	t010125_008	2.5 ppb FC Mix 00002-104-02	6.520	228073	228073.438	0.00	bb	-100		
9	t010125_009	5 ppb FC Mix 00002-104-03	6.156	209827	209827.078	0.00	bb	-100		
10	t010125_010	10 ppb FC Mix 00002-104-04	6.388	256076	256076.359	0.95	bb	-91		
11	t010125_011	25 ppb FC Mix 00002-104-05	6.111	321643	321642.656	14.79	bb	-41		
12	t010125_012	40 ppb FC Mix 00002-104-06	6.292	422644	422643.563	36.27	bb	-9		
13	t010125_013	50 ppb FC Mix 00002-104-07	6.388	508823	508823.188	54.76	bb	10		
14	t010125_014	75 ppb FC Mix 00002-104-08	6.074	625655	625654.688	80.04	bb	7		
15	t010125_015	100 ppb FC Mix 00002-104-09	6.483	696012	696012.313	95.40	bb	-5		
16	t010125_016	250 ppb FC Mix 00002-104-10	6.134	1607022	1607021.750	304.22	bb	22		
17	t010125_017	500 ppb FC Mix 00002-104-11	6.509	2477999	2477998.750	525.01	bb	5		
18	t010125_018	750 ppb FC Mix 00002-104-12	6.398	3324924	3324924.000	767.38	bb	2		
19	t010125_019	1000 ppb FC Mix 00002-104-13	6.265	3625888	3625888.250	862.44	bb	-14		
20	t010125_020	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.107	140546	140546.016	0.00	bb			
21	t010125_021	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.531	175460	175459.922	0.00	bb			
22	t010125_022	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.265	150713	150713.141	0.00	bb			
23	t010125_023	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.352	168830	168829.969	0.00	bb			
24	t010125_024	0 ppb FC Mix 00002-104-01	6.146	132405	132404.578	0.00	bb			
25	t010125_025	2.5 ppb FC Mix 00002-104-02	6.349	181926	181925.563	0.00	bbX	-100		
26	t010125_026	5 ppb FC Mix 00002-104-03	6.121	170151	170150.672	0.00	bbX	-100		
27	t010125_027	10 ppb FC Mix 00002-104-04	6.302	223063	223063.438	0.00	bbX	-100		
28	t010125_028	25 ppb FC Mix 00002-104-05	6.110	298612	298612.031	9.92	bbX	-60		
29	t010125_029	40 ppb FC Mix 00002-104-06	6.458	400141	400141.438	31.47	bb	-21		
30	t010125_030	50 ppb FC Mix 00002-104-07	6.110	469182	469181.844	46.24	bb	-8		
31	t010125_031	75 ppb FC Mix 00002-104-08	6.156	604584	604584.250	75.46	bb	1		
32	t010125_032	100 ppb FC Mix 00002-104-09	6.341	744175	744174.750	105.97	bb	6		
33	t010125_033	250 ppb FC Mix 00002-104-10	6.050	1484003	1484002.500	274.84	bb	10		
34	t010125_034	500 ppb FC Mix 00002-104-11	6.520	2300138	2300137.500	477.90	bb	-4		
35	t010125_035	750 ppb FC Mix 00002-104-12	6.543	3223153	3223152.500	736.43	bb	-2		
36	t010125_036	1000 ppb FC Mix 00002-104-13	6.050	3992950	3992949.500	986.75	bb	-1		
37	t010125_037	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.590	178960	178960.375	0.00	bb			
38	t010125_038	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.073	106658	106658.281	0.00	bb			
39	t010125_039	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.410	168177	168176.719	0.00	bb			
40	t010125_040	10x E00-1311-0016	6.121	84682	84681.828	0.00	bb			
41	t010125_041	10x E00-1311-0017	6.500	162860	162860.281	0.00	bb			
42	t010125_042	10x E00-1311-0018	6.169	141596	141596.422	0.00	bb			
43	t010125_043	10x E00-1311-0019	6.675	188330	188329.828	0.00	bb			
44	t010125_044	10x E00-1311-0020	6.170	141421	141420.531	0.00	bb			
45	t010125_045	250 ppb FC Mix 00002-104-10	6.458	1301101	1301100.500	231.89	bb	-7		
46	t010125_046	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.049	125026	125026.102	0.00	bb			
47	t010125_047	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.567	161718	161717.781	0.00	bb			
48	t010125_048	10x E00-1311-0021	6.062	104841	104841.234	0.00	bb			
49	t010125_049	10x E00-1311-0022	6.590	170430	170429.656	0.00	bb			
50	t010125_050	10x E00-1311-0023	6.107	138637	138637.172	0.00	bb			
51	t010125_051	10x E00-1311-0024	6.662	193349	193349.172	0.00	bb			
52	t010125_052	10x E00-1311-0025	6.108	134611	134610.734	0.00	bb			
53	t010125_053	250 ppb FC Mix 00002-104-10	6.492	1353855	1353855.250	244.20	bb	-2		
54	t010125_054	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.095	139866	139866.328	0.00	bb			
55	t010125_055	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.626	198325	198324.719	0.00	bb			
56	t010125_056	10x E00-1311-0026	6.144	139708	139707.766	0.00	bb			
57	t010125_057	10x E00-1311-0027	6.612	198474	198473.656	0.00	bb			
58	t010125_058	10x E00-1311-0028	6.072	146448	146448.297	0.00	bb			
59	t010125_059	10x E00-1311-0029	6.135	55629	55628.688	0.00	bb			
60	t010125_060	10x E00-1311-0030	6.170	145556	145555.625	0.00	bb			
61	t010125_061	250 ppb FC Mix 00002-104-10	6.445	1369261	1369261.375	247.80	bb	-1		
62	t010125_062	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.039	122300	122300.242	0.00	bb			
63	t010125_063	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.460	151469	151468.953	0.00	bb			
64	t010125_064	10x E00-1311-0031	6.025	2808144	2808143.500	615.66	bb			
65	t010125_065	10x E00-1311-0032	6.508	2511874	2511874.250	534.11	bb			
66	t010125_066	10x E00-1311-0033	6.035	2834724	2834724.000	623.15	bb			
67	t010125_067	10x E00-1311-0034	6.505	2425654	2425654.250	511.02	bb			
68	t010125_068	10x E00-1311-0035	6.035	2748880	2748880.250	599.06	bb			
69	t010125_069	250 ppb FC Mix 00002-104-10	6.532	1418330	1418330.250	259.33	bb	4		
70	t010125_070	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.674	59950	59950.008	0.00	bb			
71	t010125_071	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.108	138127	138126.672	0.00	bb			
72	t010125_072	10x E00-1311-0036	6.315	2531397	2531397.000	539.37	bb			
73	t010125_073	10x E00-1311-0037	6.012	2761946	2761945.500	602.70	bb			
74	t010125_074	10x E00-1311-0038	6.458	2545826	2545825.750	543.28	bb			
75	t010125_075	10x E00-1311-0039	6.086	2807459	2807459.250	615.46	bb			
76	t010125_076	10x E00-1311-0040	6.325	2632773	2632772.750	566.96	bb			
77	t010125_077	250 ppb FC Mix 00002-104-10	6.096	1501077	1501077.125	278.90	bb	12		
78	t010125_078	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.205	148933	148933.156	0.00	bb			
79	t010125_079	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.579	174595	174594.859	0.00	bb			
80	t010125_080	10x E00-1311-0041	6.254	2612098	2612098.000	561.30	bb			
81	t010125_081	10x E00-1311-0042	6.109	2687648	2687647.500	582.06	bb			
82	t010125_082	10x E00-1311-0043	6.507	2610315	2610315.000	560.81	bb			

Quantitated and Printed by CMC on 31 Jan 01 Study # E00-1311

CMC 1/31/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010125
Last modified: Thu Jan 25 10:45:39 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 31 07:38:20 2001
Job Code:

Printed: Wed Jan 31 07:42:18 2001

Compound 1: PFOS(499)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
83	t010125_083	10x E00-1311-0044	6.073	2858584	2858584.250	629.91	bb			
84	t010125_084	10x E00-1311-0045	6.324	2564991	2564990.500	548.47	bb			
85	t010125_085	250 ppb FC Mix 00002-104-10	6.047	1595213	1595213.250	301.38	bb	21		
86	t010125_086	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.578	179278	179278.266	0.00	bb			
87	t010125_087	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.036	113308	113308.227	0.00	bb			
88	t010125_088	10x E00-1311-0046	6.313	2646938	2646937.500	570.84	bb			
89	t010125_089	10x E00-1311-0047	6.119	2804164	2804164.000	614.54	bb			
90	t010125_090	10x E00-1311-0048	6.299	2570387	2570386.500	549.94	bb			
91	t010125_091	10x E00-1311-0049	6.098	2879210	2879210.250	635.77	bb			
92	t010125_092	10x E00-1311-0050	6.170	2533023	2533023.250	539.81	bb			
93	t010125_093	250 ppb FC Mix 00002-104-10	6.058	1333005	1333005.000	239.33	bb	-4		
94	t010125_094	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.373	146205	146204.859	0.00	bb			
95	t010125_095	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.059	70683	70683.414	0.00	bb			
96	t010125_096	10x E00-1311-0051	6.363	2005865	2005864.625	402.35	bb			
97	t010125_097	10x E00-1311-0052	6.099	2065654	2065653.500	417.47	bb			
98	t010125_098	10x E00-1311-0053	6.120	1833231	1833230.750	359.31	bb			
99	t010125_099	10x E00-1311-0054	6.180	1920545	1920544.625	380.97	bb			
100	t010125_100	10x E00-1311-0055	6.331	2784784	2784784.000	609.10	bb			
101	t010125_101	250 ppb FC Mix 00002-104-10	6.046	1582417	1582416.750	298.31	bb	19		
102	t010125_102	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.448	180976	180975.719	0.00	bb			
103	t010125_103	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.051	126826	126826.359	0.00	bb			
104	t010125_104	10x E00-1311-0056	6.541	2766212	2766211.500	603.90	bb			
105	t010125_105	10x E00-1311-0057	6.493	2534908	2534908.000	540.32	bb			
106	t010125_106	10x E00-1311-0058	6.048	3035785	3035785.000	680.88	bb			
107	t010125_107	10x E00-1311-0059	6.348	2548403	2548402.500	543.97	bb			
108	t010125_108	10x E00-1311-0060	6.071	2813637	2813637.000	617.20	bb			
109	t010125_109	250 ppb FC Mix 00002-104-10	6.468	1387797	1387796.500	252.15	bb	1		
110	t010125_110	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.024	125085	125084.563	0.00	bb			
111	t010125_111	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.552	174696	174695.734	0.00	bb			
112	t010125_112	10x E00-1311-0061	6.322	2567028	2567027.750	549.02	bb			
113	t010125_113	10x E00-1311-0062	6.071	2770308	2770308.000	605.04	bb			
114	t010125_114	10x E00-1311-0063	6.507	2493961	2493960.500	529.29	bb			
115	t010125_115	10x E00-1311-0064	6.061	2801319	2801318.750	613.74	bb			
116	t010125_116	10x E00-1311-0065	6.535	2516190	2516190.000	535.27	bb			
117	t010125_117	250 ppb FC Mix 00002-104-10	6.503	1357075	1357075.125	244.95	bb	-2		
118	t010125_118	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.058	103976	103975.977	0.00	bb			
119	t010125_119	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.528	175921	175920.563	0.00	bb			
120	t010125_120	10x E00-1311-0066	6.385	2561146	2561146.000	547.43	bb			
121	t010125_121	10x E00-1311-0067	6.033	1697580	1697580.000	326.10	bb			
122	t010125_122	10x E00-1311-0068	6.168	2221849	2221848.750	457.52	bb			
123	t010125_123	10x E00-1311-0069	6.050	2703580	2703579.500	586.47	bb			
124	t010125_124	10x E00-1311-0070	6.436	2045583	2045583.000	412.39	bb			
125	t010125_125	250 ppb FC Mix 00002-104-10	6.157	1373129	1373128.625	248.71	bb	-1		
126	t010125_126	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.060	131690	131689.594	0.00	bb			
127	t010125_127	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.662	209049	209048.594	0.00	bb			
128	t010125_128	10x E00-1311-0071	6.026	2281647	2281647.250	473.07	bb			
129	t010125_129	10x E00-1311-0072	6.543	1994915	1994914.500	399.60	bb			
130	t010125_130	10x E00-1311-0073	6.156	2107328	2107328.000	428.08	bb			
131	t010125_131	10x E00-1311-0074	6.073	2275225	2275224.500	471.39	bb			
132	t010125_132	10x E00-1311-0075	6.263	2070675	2070675.125	418.75	bb			
133	t010125_133	250 ppb FC Mix 00002-104-10	6.135	1418906	1418906.000	259.46	bb	4		
134	t010125_134	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.576	189572	189572.422	0.00	bb			
135	t010125_135	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.070	77809	77809.250	0.00	bb			
136	t010125_136	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.581	188258	188257.766	0.00	bb			
137	t010125_137	0 ppb FC Mix 00002-104-01	6.095	177973	177972.719	0.00	bb			
138	t010125_138	2.5 ppb FC Mix 00002-104-02	6.450	191784	191784.063	0.00	bbX	-100		
139	t010125_139	5 ppb FC Mix 00002-104-03	6.181	191884	191884.234	0.00	bbX	-100		
140	t010125_140	10 ppb FC Mix 00002-104-04	6.326	235222	235222.219	0.00	bbX	-100		
141	t010125_141	25 ppb FC Mix 00002-104-05	6.096	308328	308328.469	11.98	bbX	-52		
142	t010125_142	40 ppb FC Mix 00002-104-06	6.312	387661	387661.406	28.81	bb	-28		
143	t010125_143	50 ppb FC Mix 00002-104-07	6.240	479692	479691.563	48.49	bb	-3		
144	t010125_144	75 ppb FC Mix 00002-104-08	6.530	578191	578191.375	69.74	bb	-7		
145	t010125_145	100 ppb FC Mix 00002-104-09	6.109	780577	780576.875	114.00	bb	14		
146	t010125_146	250 ppb FC Mix 00002-104-10	6.424	1380449	1380448.875	250.42	bb	0		
147	t010125_147	500 ppb FC Mix 00002-104-11	6.039	2466444	2466444.250	521.91	MM	4	a	
148	t010125_148	750 ppb FC Mix 00002-104-12	6.528	3197643	3197642.500	728.76	bb	-3		
149	t010125_149	1000 ppb FC Mix 00002-104-13	6.040	4125592	4125591.750	1034.37	bb	3		
150	t010125_150	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.556	205462	205461.656	0.00	bb			
151	t010125_151	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.674	71219	71219.266	0.00	bb			

Quantitated and Printed by CMC on 31 Jan 01 Study # E00-1311

CMC 1/31/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010125
Last modified: Thu Jan 25 10:45:39 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 31 07:38:20 2001
Job Code:

Printed: Wed Jan 31 07:42:18 2001

Compound 2: I.S.(TH-PFOS)(427)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
1	t010125_001	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.209	5373	5372.524	14.48	bb			
2	t010125_002	MeOH Blank, TN-A-4740, Aliq. 12/04/00	7.132	11729	11728.611	31.62	bb			
3	t010125_003	1000 ppb FC Mix 00002-104-13	6.071	70045	70045.336	188.83	bb	-24		
4	t010125_004	1000 ppb FC Mix 00002-104-13	6.325	75600	75600.156	203.80	bb	-18		
5	t010125_005	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.048	2522	2522.483	6.80	bb			
6	t010125_006	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.012	519	519.195	1.40	bb			
7	t010125_007	0 ppb FC Mix 00002-104-01	6.061	126675	126675.086	341.49	bb	37		
8	t010125_008	2.5 ppb FC Mix 00002-104-02	6.231	117847	117846.625	317.69	bb	27		
9	t010125_009	5 ppb FC Mix 00002-104-03	6.096	118679	118679.031	319.93	bb	28		
10	t010125_010	10 ppb FC Mix 00002-104-04	6.159	112125	112125.469	302.27	bb	21		
11	t010125_011	25 ppb FC Mix 00002-104-05	6.063	109100	109100.398	294.11	bb	18		
12	t010125_012	40 ppb FC Mix 00002-104-06	6.135	107613	107613.313	290.10	bb	16		
13	t010125_013	50 ppb FC Mix 00002-104-07	6.328	99745	99744.711	268.89	bb	8		
14	t010125_014	75 ppb FC Mix 00002-104-08	6.026	102506	102505.703	276.33	bb	11		
15	t010125_015	100 ppb FC Mix 00002-104-09	6.230	96942	96941.961	261.33	bb	5		
16	t010125_016	250 ppb FC Mix 00002-104-10	6.073	82354	82353.539	222.01	bb	-11		
17	t010125_017	500 ppb FC Mix 00002-104-11	6.400	73659	73659.094	198.57	bb	-21		
18	t010125_018	750 ppb FC Mix 00002-104-12	6.193	62381	62380.656	168.16	bb	-33		
19	t010125_019	1000 ppb FC Mix 00002-104-13	6.217	46986	46985.852	126.66	bb	-49		
20	t010125_020	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.046	1691	1690.943	4.56	bb			
21	t010125_021	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.410	514	514.222	1.39	bd			
22	t010125_022	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.120	1019	1019.106	2.75	bb			
23	t010125_023	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.292	503	503.462	1.36	bb			
24	t010125_024	0 ppb FC Mix 00002-104-01	6.086	118013	118013.289	318.14	bb	27		
25	t010125_025	2.5 ppb FC Mix 00002-104-02	6.145	106158	106157.750	286.18	bb	14		
26	t010125_026	5 ppb FC Mix 00002-104-03	6.061	109910	109909.656	296.29	bb	19		
27	t010125_027	10 ppb FC Mix 00002-104-04	6.109	105112	105111.656	283.36	bb	13		
28	t010125_028	25 ppb FC Mix 00002-104-05	6.061	101461	101460.953	273.52	bb	9		
29	t010125_029	40 ppb FC Mix 00002-104-06	6.206	99250	99250.172	267.56	bb	7		
30	t010125_030	50 ppb FC Mix 00002-104-07	6.062	97592	97591.688	263.09	bb	5		
31	t010125_031	75 ppb FC Mix 00002-104-08	6.035	96662	96662.000	260.58	bb	4		
32	t010125_032	100 ppb FC Mix 00002-104-09	6.280	84852	84852.133	228.74	bb	-9		
33	t010125_033	250 ppb FC Mix 00002-104-10	5.990	76758	76757.734	206.92	bb	-17		
34	t010125_034	500 ppb FC Mix 00002-104-11	6.399	76238	76237.547	205.52	bb	-18		
35	t010125_035	750 ppb FC Mix 00002-104-12	6.362	70176	70176.188	189.18	bb	-24		
36	t010125_036	1000 ppb FC Mix 00002-104-13	5.990	53632	53631.707	144.58	bb	-42		
37	t010125_037	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
38	t010125_038	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.000	1428	1427.568	3.85	bb			
39	t010125_039	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.169	603	603.102	1.63	bb			
40	t010125_040	10x E00-1311-0016	6.025	118872	118872.305	320.45	bb	28		
41	t010125_041	10x E00-1311-0017	6.380	112733	112733.109	303.90	bb	22		
42	t010125_042	10x E00-1311-0018	6.108	110966	110965.875	299.14	bb	20		
43	t010125_043	10x E00-1311-0019	6.072	114288	114288.406	308.10	bb	23		
44	t010125_044	10x E00-1311-0020	6.110	109119	109118.742	294.16	bb	18		
45	t010125_045	250 ppb FC Mix 00002-104-10	6.157	86705	86705.156	233.74	bb	-7		
46	t010125_046	MeOH Blank, TN-A-4740, Aliq. 12/04/00	5.952	1081	1080.741	2.91	bb			
47	t010125_047	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
48	t010125_048	10x E00-1311-0021	5.990	124529	124529.461	335.70	bb	34		
49	t010125_049	10x E00-1311-0022	6.265	122964	122964.258	331.49	bb	33		
50	t010125_050	10x E00-1311-0023	6.047	117237	117236.961	316.05	bb	26		
51	t010125_051	10x E00-1311-0024	6.121	117726	117725.922	317.36	bb	27		
52	t010125_052	10x E00-1311-0025	6.048	116042	116041.797	312.82	bb	25		
53	t010125_053	250 ppb FC Mix 00002-104-10	6.179	92444	92444.086	249.21	bb	-0		
54	t010125_054	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.035	2050	2050.362	5.53	bb			
55	t010125_055	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.145	712	712.336	1.92	bb			
56	t010125_056	10x E00-1311-0026	6.084	113810	113810.109	306.81	bb	23		
57	t010125_057	10x E00-1311-0027	6.082	119408	119407.734	321.90	bb	29		
58	t010125_058	10x E00-1311-0028	6.012	252894	252894.094	681.75	bb	173		
59	t010125_059	10x E00-1311-0029	5.978	186886	186885.938	503.80	bb	102		
60	t010125_060	10x E00-1311-0030	6.109	185019	185019.078	498.77	bb	100		
61	t010125_061	250 ppb FC Mix 00002-104-10	6.144	92634	92633.828	249.72	bb	-0		
62	t010125_062	MeOH Blank, TN-A-4740, Aliq. 12/04/00	5.966	1567	1567.286	4.23	bb			
63	t010125_063	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
64	t010125_064	10x E00-1311-0031	5.977	108803	108802.805	293.31	bb	17		
65	t010125_065	10x E00-1311-0032	6.207	119501	119501.391	322.15	bb	29		
66	t010125_066	10x E00-1311-0033	5.963	113016	113015.695	304.67	bb	22		
67	t010125_067	10x E00-1311-0034	6.204	119626	119626.469	322.49	bb	29		
68	t010125_068	10x E00-1311-0035	5.975	107200	107199.844	288.99	bb	16		
69	t010125_069	250 ppb FC Mix 00002-104-10	6.303	103229	103228.641	278.28	bb	11		
70	t010125_070	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.000	1198	1198.204	3.23	bb			
71	t010125_071	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.048	1922	1922.064	5.18	bb			
72	t010125_072	10x E00-1311-0036	6.050	116049	116048.961	312.84	bb	25		
73	t010125_073	10x E00-1311-0037	5.952	108684	108683.570	292.99	bb	17		
74	t010125_074	10x E00-1311-0038	6.133	119125	119124.578	321.13	bb	28		
75	t010125_075	10x E00-1311-0039	6.037	108263	108263.000	291.85	bb	17		
76	t010125_076	10x E00-1311-0040	6.085	115063	115063.258	310.19	bb	24		
77	t010125_077	250 ppb FC Mix 00002-104-10	5.987	89852	89851.828	242.22	bb	-3		
78	t010125_078	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.157	607	606.992	1.64	bb			
79	t010125_079	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
80	t010125_080	10x E00-1311-0041	6.037	116893	116893.242	315.12	bb	26		
81	t010125_081	10x E00-1311-0042	6.049	106721	106720.656	287.70	bb	15		
82	t010125_082	10x E00-1311-0043	6.206	122748	122748.484	330.90	bb	32		

Quantitated and Printed by CMC on 31 Jan 01 Study # E00-1311

CMC 1/31/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010125
Last modified: Thu Jan 25 10:45:39 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 31 07:38:20 2001
Job Code:

Printed: Wed Jan 31 07:42:18 2001

Compound 2: I.S. (TH-PFOS) (427)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
83	t010125_083	10x E00-1311-0044	6.013	105324	105324.102	283.93	bb	14		
84	t010125_084	10x E00-1311-0045	6.072	116901	116900.750	315.14	bb	26		
85	t010125_085	250 ppb FC Mix 00002-104-10	5.999	83072	83072.023	223.94	bb	-10		
86	t010125_086	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
87	t010125_087	MeOH Blank, TN-A-4740, Aliq. 12/04/00	5.976	1668	1668.148	4.50	bb			
88	t010125_088	10x E00-1311-0046	6.253	106186	106186.273	286.26	bb	15		
89	t010125_089	10x E00-1311-0047	6.070	103150	103150.477	278.07	bb	11		
90	t010125_090	10x E00-1311-0048	6.070	112295	112295.242	302.72	bb	21		
91	t010125_091	10x E00-1311-0049	6.049	96921	96921.016	261.28	bb	5		
92	t010125_092	10x E00-1311-0050	6.038	102624	102624.383	276.65	bb	11		
93	t010125_093	250 ppb FC Mix 00002-104-10	5.986	71867	71867.242	193.74	bb	-23		
94	t010125_094	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
95	t010125_095	MeOH Blank, TN-A-4740, Aliq. 12/04/00	5.975	1056	1055.913	2.85	bb			
96	t010125_096	10x E00-1311-0051	6.291	68547	68546.523	184.79	bb	-26		
97	t010125_097	10x E00-1311-0052	6.039	62273	62273.418	167.88	bb	-33		
98	t010125_098	10x E00-1311-0053	5.999	68098	68097.969	183.58	bb	-27		
99	t010125_099	10x E00-1311-0054	6.120	53704	53704.141	144.77	bb	-42		
100	t010125_100	10x E00-1311-0055	6.271	104842	104842.320	282.63	bb	13		
101	t010125_101	250 ppb FC Mix 00002-104-10	5.998	81701	81701.250	220.25	bb	-12		
102	t010125_102	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.376	695	695.141	1.87	bb			
103	t010125_103	MeOH Blank, TN-A-4740, Aliq. 12/04/00	5.990	2071	2071.462	5.58	bb			
104	t010125_104	10x E00-1311-0056	6.361	123699	123699.445	333.47	bb	33		
105	t010125_105	10x E00-1311-0057	6.168	114165	114164.625	307.76	bb	23		
106	t010125_106	10x E00-1311-0058	5.988	101409	101408.508	273.38	bb	9		
107	t010125_107	10x E00-1311-0059	6.071	109000	109000.344	293.84	bb	18		
108	t010125_108	10x E00-1311-0060	6.011	98029	98029.047	264.27	bb	6		
109	t010125_109	250 ppb FC Mix 00002-104-10	6.372	81428	81428.047	219.51	bb	-12		
110	t010125_110	MeOH Blank, TN-A-4740, Aliq. 12/04/00	5.952	1436	1435.502	3.87	bb			
111	t010125_111	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
112	t010125_112	10x E00-1311-0061	6.262	99050	99049.680	267.02	bb	7		
113	t010125_113	10x E00-1311-0062	6.023	96206	96205.742	259.35	bb	4		
114	t010125_114	10x E00-1311-0063	6.170	112143	112143.391	302.31	bb	21		
115	t010125_115	10x E00-1311-0064	6.001	97979	97978.953	264.13	bb	6		
116	t010125_116	10x E00-1311-0065	6.245	115602	115601.617	311.64	bb	25		
117	t010125_117	250 ppb FC Mix 00002-104-10	6.203	94374	94374.211	254.41	bb	2		
118	t010125_118	MeOH Blank, TN-A-4740, Aliq. 12/04/00	5.986	1721	1720.759	4.64	bb			
119	t010125_119	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.383	530	530.416	1.43	bd			
120	t010125_120	10x E00-1311-0066	6.313	102207	102207.477	275.53	bb	10		
121	t010125_121	10x E00-1311-0067	5.985	207435	207435.234	559.20	bb	124		
122	t010125_122	10x E00-1311-0068	5.999	209218	209218.359	564.01	bb	126		
123	t010125_123	10x E00-1311-0069	5.966	222164	222163.859	598.91	bb	140		
124	t010125_124	10x E00-1311-0070	6.351	131563	131562.906	354.67	bb	42		
125	t010125_125	250 ppb FC Mix 00002-104-10	6.000	88381	88380.602	238.26	bb	-5		
126	t010125_126	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.000	1806	1806.316	4.87	bb			
127	t010125_127	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.084	1088	1088.456	2.93	bb			
128	t010125_128	10x E00-1311-0071	5.965	159566	159565.938	430.16	bb	72		
129	t010125_129	10x E00-1311-0072	6.267	128245	128244.859	345.72	bb	38		
130	t010125_130	10x E00-1311-0073	5.999	173139	173139.297	466.75	bb	87		
131	t010125_131	10x E00-1311-0074	5.977	176159	176158.922	474.89	bb	90		
132	t010125_132	10x E00-1311-0075	6.203	141078	141078.141	380.32	bb	52		
133	t010125_133	250 ppb FC Mix 00002-104-10	6.086	77577	77576.617	209.13	bb	-16		
134	t010125_134	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
135	t010125_135	MeOH Blank, TN-A-4740, Aliq. 12/04/00	5.962	1240	1240.172	3.34	bb			
136	t010125_136	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
137	t010125_137	0 ppb FC Mix 00002-104-01	5.975	118927	118927.320	320.60	bb	28		
138	t010125_138	2.5 ppb FC Mix 00002-104-02	6.354	107193	107192.914	288.97	bb	16		
139	t010125_139	5 ppb FC Mix 00002-104-03	6.121	110172	110171.938	297.00	bb	19		
140	t010125_140	10 ppb FC Mix 00002-104-04	6.085	113811	113810.570	306.81	bb	23		
141	t010125_141	25 ppb FC Mix 00002-104-05	6.048	115567	115567.383	311.54	bb	25		
142	t010125_142	40 ppb FC Mix 00002-104-06	6.108	110021	110021.266	296.59	bb	19		
143	t010125_143	50 ppb FC Mix 00002-104-07	6.192	97363	97363.398	262.47	bb	5		
144	t010125_144	75 ppb FC Mix 00002-104-08	6.240	111684	111684.203	301.08	bb	20		
145	t010125_145	100 ppb FC Mix 00002-104-09	6.061	94649	94649.477	255.15	bb	2		
146	t010125_146	250 ppb FC Mix 00002-104-10	6.159	90408	90407.883	243.72	bb	-3		
147	t010125_147	500 ppb FC Mix 00002-104-11	5.979	67716	67715.648	182.55	bb	-27		
148	t010125_148	750 ppb FC Mix 00002-104-12	6.288	73708	73708.352	198.70	bb	-21		
149	t010125_149	1000 ppb FC Mix 00002-104-13	5.979	55605	55605.203	149.90	bb	-40		
150	t010125_150	MeOH Blank, TN-A-4740, Aliq. 12/04/00	5.953	578	578.391	1.56	bb			
151	t010125_151	MeOH Blank, TN-A-4740, Aliq. 12/04/00	5.988	1101	1101.073	2.97	bb			

Quantitated and Printed by CMC on 31 Jan 01 Study # E00-1311

CMC 1/31/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb E00-1311

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001120a
Last modified: Thu Jan 11 07:00:06 2001
Method: C:\Masslynx\soup020199.pro\MethDB\s001120
Last modified: Wed Nov 22 06:41:05 2000
Job Code:

Printed: Thu Jan 11 07:03:22 2001

Compound 1: PFOS (499>99), func 1

#	Name	study no Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
1	s00120_001	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.141	259	0.00		bb		
2	s00120_002	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		7.117	30961			bbI		
3	s00120_003	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		7.118	30002			bbI		
4	s00120_004	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.130	213	0.00		bb		
5	s00120_005	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.118	148	0.00		bb		
6	s00120_006	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		7.119	691	0.00		bb		
7	s00120_007	E00-1311 2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Analyte		7.117	1222	0.00	-100	bb		
8	s00120_008	E00-1311 4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Analyte		7.131	1468	0.00	-100	bb		
9	s00120_009	E00-1311 9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Analyte		7.131	1566	0.00	-100	bb		
10	s00120_010	E00-1311 24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Analyte		7.118	2745	17.72	-28	bb		
11	s00120_011	E00-1311 39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Analyte		7.118	3508	34.55	-13	bb		
12	s00120_012	E00-1311 49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Analyte		7.119	3899	43.26	-13	bb		
13	s00120_013	E00-1311 74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Analyte		7.117	5352	76.26	3	bb		
14	s00120_014	E00-1311 99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Analyte		7.107	6795	110.02	11	bb		
15	s00120_015	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Analyte		7.105	12561	257.10	4	bb		
16	s00120_016	E00-1311 495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Analyte		7.106	19155	460.85	-7	bb		
17	s00120_017	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		7.107	28597	974.59	-2	bb		
18	s00120_018	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.119	144	0.00		bb		
19	s00120_019	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.118	123	0.00		bb		
20	s00120_020	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.129	124	0.00		bb		
21	s00120_021	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		7.117	604	0.00		bb		
22	s00120_022	E00-1311 2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Standard	2.47	7.106	1095	0.00	-100	bbX		
23	s00120_023	E00-1311 4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Standard	4.95	7.118	1354	0.00	-100	bbX		
24	s00120_024	E00-1311 9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Standard	9.90	7.106	1454	0.00	-100	bbX		
25	s00120_025	E00-1311 24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Standard	24.75	7.117	2683	16.35	-34	bb		
26	s00120_026	E00-1311 39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Standard	39.60	7.107	3390	31.91	-19	bb		
27	s00120_027	E00-1311 49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Standard	49.50	7.106	3889	43.05	-13	bb		
28	s00120_028	E00-1311 74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Standard	74.26	7.106	5282	74.65	1	bb		
29	s00120_029	E00-1311 99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Standard	99.20	7.106	6720	108.24	9	bb		
30	s00120_030	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Standard	247.90	7.106	12653	259.63	5	bb		
31	s00120_031	E00-1311 495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Standard	495.90	7.106	19151	460.70	-7	bb		
32	s00120_032	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Standard	991.78	7.107	28429	955.43	-4	bb		
33	s00120_033	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.130	207	0.00		bb		
34	s00120_034	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.128	133	0.00		bb		
35	s00120_035	E00-1311 E00-1311-1001 0hr	Analyte		7.131	110	0.00		bb		
36	s00120_036	E00-1311 E00-1311-1002 0hr	Analyte		7.142	161	0.00		bb		
37	s00120_037	E00-1311 E00-1311-1003 0hr	Analyte		7.132	119	0.00		bb		
38	s00120_038	E00-1311 E00-1311-1004 0hr	Analyte		7.133	2652	15.68		bb		
39	s00120_039	E00-1311 E00-1311-1005 0hr	Analyte		7.138	2598	14.50		bb		
40	s00120_040	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.131	12431	253.52	2	bb		
41	s00120_041	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.143	119	0.00		bb		
42	s00120_042	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.144	90	0.00		bb		
43	s00120_043	E00-1311 E00-1311-1006 0hr	Analyte		7.131	2578	14.07		bb		
44	s00120_044	E00-1311 E00-1311-1007 0hr	Analyte		7.143	19884	486.97		bb		
45	s00120_045	E00-1311 E00-1311-1008 0hr	Analyte		7.142	20845	523.02		bb		
46	s00120_046	E00-1311 E00-1311-1009 0hr	Analyte		7.133	21384	544.09		bb		
47	s00120_047	E00-1311 E00-1311-1010 24 hour, 0mg/L, S1, C-1	Analyte		7.130	3116	25.86		bb		
48	s00120_048	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.130	12536	256.40	3	bb		
49	s00120_049	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.142	100	0.00		bb		
50	s00120_050	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.142	81	0.00		bb		
51	s00120_051	E00-1311 E00-1311-1011 24 hour, 0mg/L, S1, C-1	Analyte		7.141	1084	0.00		bb		
52	s00120_052	E00-1311 E00-1311-1012 24 hour, 0mg/L, S1, C-1	Analyte		7.143	540	0.00		bb		
53	s00120_053	E00-1311 E00-1311-1012 24 hour, 0mg/L, S1, C-1, MS	Analyte		7.131	11095	217.61		bb		
54	s00120_054	E00-1311 E00-1311-1013 24 hour, 0.10mg/L, S1, C-1	Analyte		7.143	2562	13.72		bb		
55	s00120_055	E00-1311 E00-1311-1014 24 hour, 0.10mg/L, S1, C-1	Analyte		7.142	2834	19.66		bb		
56	s00120_056	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.131	12793	263.50	6	bb		
57	s00120_057	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.130	133	0.00		bb		
58	s00120_058	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.138	149	0.00		bb		
59	s00120_059	E00-1311 E00-1311-1015 24 hour, 0.10mg/L, S1, C-1	Analyte		7.141	2667	16.01		bb		
60	s00120_060	E00-1311 E00-1311-1015 24 hour, 0.10mg/L, S1, C-1, MS	Analyte		7.141	12420	253.23		bb		
61	s00120_061	E00-1311 E00-1311-1016 24 hour, 1.0mg/L, S1, C-1	Analyte		7.144	19190	462.08		bb		
62	s00120_062	E00-1311 E00-1311-1017 24 hour, 1.0mg/L, S1, C-1	Analyte		7.142	19557	475.12		bb		
63	s00120_063	E00-1311 E00-1311-1018 24 hour, 1.0mg/L, S1, C-1	Analyte		7.140	20389	505.67		bb		
64	s00120_064	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.133	12905	266.61	8	bb		
65	s00120_065	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.132	160	0.00		bb		
66	s00120_066	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.142	89	0.00		bb		
67	s00120_067	E00-1311 E00-1311-1018 24 hour, 1.0mg/L, S1, C-1 MS	Analyte		7.131	25186	719.03		bb		
68	s00120_068	E00-1311 E00-1311-1010 24 hour, 0mg/L, S2, C-1	Analyte		7.142	3033	24.03		bb		
69	s00120_069	E00-1311 E00-1311-1011 24 hour, 0mg/L, S2, C-1	Analyte		7.141	1052	0.00		bb		
70	s00120_070	E00-1311 E00-1311-1012 24 hour, 0mg/L, S2, C-1	Analyte		7.142	438	0.00		bb		
71	s00120_071	E00-1311 E00-1311-1012 24 hour, 0mg/L, S2, C-1, MS	Analyte		7.141	12229	248.01		bb		
72	s00120_072	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.127	13639	287.25	16	bb		
73	s00120_073	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.154	106	0.00		bb		
74	s00120_074	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.141	91	0.00		bb		
75	s00120_075	E00-1311 E00-1311-1013 24 hour, 0.10mg/L, S2, C-1	Analyte		7.143	1425	0.00		bb		
76	s00120_076	E00-1311 E00-1311-1014 24 hour, 0.10mg/L, S2, C-1	Analyte		7.130	1186	0.00		bb		
77	s00120_077	E00-1311 E00-1311-1015 24 hour, 0.10mg/L, S2, C-1	Analyte		7.131	1470	0.00		bb		
78	s00120_078	E00-1311 E00-1311-1015 24 hour, 0.10mg/L, S2, C-1, MS	Analyte		7.129	12466	254.50		bb		
79	s00120_079	E00-1311 E00-1311-1016 24 hour, 1.0mg/L, S2, C-1	Analyte		7.133	6830	110.87		bb		
80	s00120_080	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.119	13880	294.14	19	bb		
81	s00120_081	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.140	81	0.00		bb		
82	s00120_082	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.128	79	0.00		bb		
83	s00120_083	E00-1311 E00-1311-1017 24 hour, 1.0mg/L, S2, C-1	Analyte		7.130	7145	118.37		bb		
84	s00120_084	E00-1311 E00-1311-1018 24 hour, 1.0mg/L, S2, C-1	Analyte		7.132	7928	137.30		bb		
85	s00120_085	E00-1311 E00-1311-1018 24 hour, 1.0mg/L, S2, C-1, MS	Analyte		7.130	15596	344.75		bb		
86	s00120_086	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.127	109	0.00		bb		
87	s00120_087	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.142	81	0.00		bb		
88	s00120_088	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		7.120	625	0.00		bb		
89	s00120_089	E00-1311 2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Standard	2.47	7.115	1061	0.00	-100	bbX		

SOUP 020199: quantitated and printed by CMC on 01/11/01

CMC 1/11/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb E00-1311

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001120a
Last modified: Thu Jan 11 07:00:06 2001
Method: C:\Masslynx\soup020199.pro\MethDB\s001120
Last modified: Wed Nov 22 06:41:05 2000
Job Code:

Printed: Thu Jan 11 07:03:22 2001

Compound 1: PFOS (499>99), func 1

#	Name	study no Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
90	s00120_090	E00-1311 4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Standard	4.95	7.118	1382	0.00	-100	bbX		
91	s00120_091	E00-1311 9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Standard	9.90	7.116	1491	0.00	-100	bbX		
92	s00120_092	E00-1311 24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Standard	24.75	7.118	2749	17.81	-28	bb		
93	s00120_093	E00-1311 39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Standard	39.60	7.117	3542	35.30	-11	bb		
94	s00120_094	E00-1311 49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Standard	49.50	7.115	4013	45.81	-7	bb		
95	s00120_095	E00-1311 74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Standard	74.26	7.117	5604	82.08	11	bb		
96	s00120_096	E00-1311 99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Standard	99.20	7.115	6903	112.60	14	bb		
97	s00120_097	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Standard	247.90	7.129	13256	276.43	12	bb		
98	s00120_098	E00-1311 495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Standard	495.90	7.115	19804	484.08	-2	bb		
99	s00120_099	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Standard	991.78	7.118	29264	1080.65	9	bb		
100	s00120_100	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.125	137	0.00		bb		
101	s00120_101	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.126	87	0.00		bb		
102	s00120_102	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.142	92	0.00		bb		

SOUP 020199: quantitated and printed by CMC on 01/11/01

CMC 1/11/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb E00-1311

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001120a
Last modified: Thu Jan 11 07:00:06 2001
Method: C:\Masslynx\soup020199.pro\MethDB\s001120
Last modified: Wed Nov 22 06:41:05 2000
Job Code:

Printed: Thu Jan 11 07:03:22 2001

Compound 2: THPFOS (427>80), func 2

#	Name	study no Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod Co
1	s00120_001	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
2	s00120_002	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		6.938	2930	257.53	5	bb	
3	s00120_003	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		6.938	2763	242.81	-1	bb	
4	s00120_004	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
5	s00120_005	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
6	s00120_006	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		6.927	2812	247.17	0	bb	
7	s00120_007	E00-1311 2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Analyte		6.926	3382	297.23	21	bb	
8	s00120_008	E00-1311 4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Analyte		6.952	3449	303.13	23	bb	
9	s00120_009	E00-1311 9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Analyte		6.940	3103	272.69	11	bb	
10	s00120_010	E00-1311 24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Analyte		6.938	3256	286.20	16	bb	
11	s00120_011	E00-1311 39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Analyte		6.927	2928	257.37	5	bb	
12	s00120_012	E00-1311 49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Analyte		6.939	2648	232.71	-5	bb	
13	s00120_013	E00-1311 74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Analyte		6.926	2677	235.32	-4	bb	
14	s00120_014	E00-1311 99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Analyte		6.926	2711	238.30	-3	bb	
15	s00120_015	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Analyte		6.926	2632	231.34	-6	bb	
16	s00120_016	E00-1311 495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Analyte		6.926	2507	220.31	-10	bb	
17	s00120_017	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		6.927	2412	211.97	-14	bb	
18	s00120_018	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
19	s00120_019	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank							
20	s00120_020	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank							
21	s00120_021	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		6.925	2702	237.45	-4	bb	
22	s00120_022	E00-1311 2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Standard	246.10	6.927	3155	277.28	13	bb	
23	s00120_023	E00-1311 4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Standard	246.10	6.939	3245	285.19	16	bb	
24	s00120_024	E00-1311 9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Standard	246.10	6.926	2865	251.77	2	bb	
25	s00120_025	E00-1311 24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Standard	246.10	6.938	3119	274.08	11	bb	
26	s00120_026	E00-1311 39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Standard	246.10	6.928	2791	245.25	-0	bb	
27	s00120_027	E00-1311 49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Standard	246.10	6.927	2618	230.10	-7	bb	
28	s00120_028	E00-1311 74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Standard	246.10	6.926	2621	230.34	-6	bb	
29	s00120_029	E00-1311 99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Standard	246.10	6.927	2590	227.66	-7	bb	
30	s00120_030	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Standard	246.10	6.926	2611	229.43	-7	bb	
31	s00120_031	E00-1311 495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Standard	246.10	6.926	2488	218.68	-11	bb	
32	s00120_032	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Standard	246.10	6.926	2506	220.25	-11	bb	
33	s00120_033	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
34	s00120_034	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
35	s00120_035	E00-1311 E00-1311-1001 0hr	Analyte		6.951	3530	310.26	24	bb	
36	s00120_036	E00-1311 E00-1311-1002 0hr	Analyte		6.951	3521	309.43	24	bb	
37	s00120_037	E00-1311 E00-1311-1003 0hr	Analyte		6.953	3549	311.94	25	bb	
38	s00120_038	E00-1311 E00-1311-1004 0hr	Analyte		6.953	3518	309.20	24	bb	
39	s00120_039	E00-1311 E00-1311-1005 0hr	Analyte		6.947	3496	307.26	23	bb	
40	s00120_040	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.951	2489	218.76	-11	bb	
41	s00120_041	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
42	s00120_042	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
43	s00120_043	E00-1311 E00-1311-1006 0hr	Analyte		6.952	3489	306.60	23	bb	
44	s00120_044	E00-1311 E00-1311-1007 0hr	Analyte		6.951	3477	305.55	22	bb	
45	s00120_045	E00-1311 E00-1311-1008 0hr	Analyte		6.962	3270	287.41	15	bb	
46	s00120_046	E00-1311 E00-1311-1009 0hr	Analyte		6.953	3377	296.83	19	bb	
47	s00120_047	E00-1311 E00-1311-1010 24 hour, 0mg/L, S1, C-1	Analyte		6.951	3432	301.61	21	bb	
48	s00120_048	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.951	2527	222.08	-10	bb	
49	s00120_049	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
50	s00120_050	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
51	s00120_051	E00-1311 E00-1311-1011 24 hour, 0mg/L, S1, C-1	Analyte		6.948	3519	309.27	24	bb	
52	s00120_052	E00-1311 E00-1311-1012 24 hour, 0mg/L, S1, C-1	Analyte		6.964	3536	310.79	24	bb	
53	s00120_053	E00-1311 E00-1311-1012 24 hour, 0mg/L, S1, C-1, MS	Analyte		6.951	3401	298.93	20	bb	
54	s00120_054	E00-1311 E00-1311-1013 24 hour, 0.10mg/L, S1, C-1	Analyte		6.951	3448	303.03	21	bb	
55	s00120_055	E00-1311 E00-1311-1014 24 hour, 0.10mg/L, S1, C-1	Analyte		6.962	3526	309.91	24	bb	
56	s00120_056	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.939	2535	222.78	-9	bb	
57	s00120_057	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
58	s00120_058	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
59	s00120_059	E00-1311 E00-1311-1015 24 hour, 0.10mg/L, S1, C-1	Analyte		6.961	3578	314.44	26	bb	
60	s00120_060	E00-1311 E00-1311-1015 24 hour, 0.10mg/L, S1, C-1, MS	Analyte		6.962	3434	301.76	21	bb	
61	s00120_061	E00-1311 E00-1311-1016 24 hour, 1.0mg/L, S1, C-1	Analyte		6.965	3445	302.81	21	bb	
62	s00120_062	E00-1311 E00-1311-1017 24 hour, 1.0mg/L, S1, C-1	Analyte		6.963	3409	299.65	20	bb	
63	s00120_063	E00-1311 E00-1311-1018 24 hour, 1.0mg/L, S1, C-1	Analyte		6.962	3431	301.57	21	bb	
64	s00120_064	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.954	2461	216.30	-12	bb	
65	s00120_065	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
66	s00120_066	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
67	s00120_067	E00-1311 E00-1311-1018 24 hour, 1.0mg/L, S1, C-1 MS	Analyte		6.951	3345	294.00	18	bb	
68	s00120_068	E00-1311 E00-1311-1010 24 hour, 0mg/L, S2, C-1	Analyte		6.962	3773	331.60	33	bb	
69	s00120_069	E00-1311 E00-1311-1011 24 hour, 0mg/L, S2, C-1	Analyte		6.949	7994	702.58	181	bb	
70	s00120_070	E00-1311 E00-1311-1012 24 hour, 0mg/L, S2, C-1	Analyte		6.951	4614	405.48	62	bb	
71	s00120_071	E00-1311 E00-1311-1012 24 hour, 0mg/L, S2, C-1, MS	Analyte		6.962	4514	396.76	59	bb	
72	s00120_072	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.947	3079	270.57	10	bb	
73	s00120_073	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
74	s00120_074	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
75	s00120_075	E00-1311 E00-1311-1013 24 hour, 0.10mg/L, S2, C-1	Analyte		6.951	4590	403.42	61	bb	
76	s00120_076	E00-1311 E00-1311-1014 24 hour, 0.10mg/L, S2, C-1	Analyte		6.950	4334	380.88	52	bb	
77	s00120_077	E00-1311 E00-1311-1015 24 hour, 0.10mg/L, S2, C-1	Analyte		6.952	4403	386.94	55	bb	
78	s00120_078	E00-1311 E00-1311-1015 24 hour, 0.10mg/L, S2, C-1, MS	Analyte		6.950	4276	375.79	50	bb	
79	s00120_079	E00-1311 E00-1311-1016 24 hour, 1.0mg/L, S2, C-1	Analyte		6.954	4318	379.46	52	bb	
80	s00120_080	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.939	2941	258.51	5	bb	
81	s00120_081	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
82	s00120_082	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
83	s00120_083	E00-1311 E00-1311-1017 24 hour, 1.0mg/L, S2, C-1	Analyte		6.950	4117	361.83	45	bb	
84	s00120_084	E00-1311 E00-1311-1018 24 hour, 1.0mg/L, S2, C-1	Analyte		6.952	4161	365.66	46	bb	
85	s00120_085	E00-1311 E00-1311-1018 24 hour, 1.0mg/L, S2, C-1, MS	Analyte		6.938	3976	349.41	40	bb	
86	s00120_086	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
87	s00120_087	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte							
88	s00120_088	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		6.941	2849	250.36	2	bb	
89	s00120_089	E00-1311 2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Standard	246.10	6.935	3166	278.28	13	bb	

SOUP 020199: quantitated and printed by CMC on 01/11/01

CMC 1/11/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb E00-1311

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001120a
Last modified: Thu Jan 11 07:00:06 2001
Method: C:\Masslynx\soup020199.pro\MethDB\s001120
Last modified: Wed Nov 22 06:41:05 2000
Job Code:

Printed: Thu Jan 11 07:03:22 2001

Compound 2: THPFOS (427>80), func 2

#	Name	study no Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
90	s00120_090	E00-1311 4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Standard	246.10	6.938	3315	291.36	18	bb		
91	s00120_091	E00-1311 9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Standard	246.10	6.937	2979	261.80	6	bb		
92	s00120_092	E00-1311 24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Standard	246.10	6.938	3231	283.98	15	bb		
93	s00120_093	E00-1311 39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Standard	246.10	6.937	2840	249.60	1	bb		
94	s00120_094	E00-1311 49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Standard	246.10	6.936	2675	235.11	-4	bb		
95	s00120_095	E00-1311 74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Standard	246.10	6.938	2716	238.73	-3	bb		
96	s00120_096	E00-1311 99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Standard	246.10	6.936	2669	234.57	-5	bb		
97	s00120_097	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Standard	246.10	6.937	2377	208.93	-15	bb		
98	s00120_098	E00-1311 495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Standard	246.10	6.937	2568	225.66	-8	bb		
99	s00120_099	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Standard	246.10	6.925	2460	216.17	-12	bb		
100	s00120_100	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
101	s00120_101	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
102	s00120_102	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								

SOUP 020199: quantitated and printed by CMC on 01/11/01

CMC 1/11/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010122
Last modified: Mon Jan 22 15:03:42 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 24 06:53:49 2001
Job Code:

Printed: Wed Jan 24 07:06:18 2001

Compound 1: PFOS(499)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
1	t010122_001	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
2	t010122_002	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.471	1418177	0.000	0.00	bb			
3	t010122_003	1000 ppb PFOS 00002-104-13	6.518	5443742	19342.259	1092.32	bb	9		
4	t010122_004	1000 ppb PFOS 00002-104-13	6.494	4872953	17296.491	977.26	bb	-2		
5	t010122_005	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.302	666738	0.000	0.00	bb			
6	t010122_006	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.278	188374	0.000	0.00	bb			
7	t010122_007	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.304	163484	0.000	0.00	bb			
8	t010122_008	0 ppb FC Mix 00002-104-01	6.278	117782	277.506	2.85	bb			
9	t010122_009	2.5 ppb FC Mix 00002-104-02	6.351	135145	342.973	6.66	bb	167		
10	t010122_010	5 ppb FC Mix 00002-104-03	6.529	161293	425.429	11.46	bb	129		
11	t010122_011	10 ppb FC Mix 00002-104-04	6.603	196372	539.114	18.07	bb	81		
12	t010122_012	25 ppb FC Mix 00002-104-05	6.467	266693	820.039	34.41	bb	38		
13	t010122_013	40 ppb FC Mix 00002-104-06	6.565	338161	1459.014	71.53	bb	79		
14	t010122_014	50 ppb FC Mix 00002-104-07	6.483	431898	1818.543	92.39	bb	85		
15	t010122_015	75 ppb FC Mix 00002-104-08	6.423	513753	1730.299	87.27	bb	16		
16	t010122_016	100 ppb FC Mix 00002-104-09	6.531	594588	1936.961	99.26	bb	-1		
17	t010122_017	250 ppb FC Mix 00002-104-10	6.337	1275366	4921.492	271.87	bb	9		
18	t010122_018	500 ppb FC Mix 00002-104-11	6.277	2007741	9491.826	534.29	bb	7		
19	t010122_019	750 ppb FC Mix 00002-104-12	6.457	2763803	13604.815	768.53	bb	2		
20	t010122_020	1000 ppb FC Mix 00002-104-13	6.556	3645079	17205.562	972.14	bb	-3		
21	t010122_021	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.423	131577	0.000	0.00	bb			
22	t010122_022	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.507	129156	0.000	0.00	bb			
23	t010122_023	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.217	112678	0.000	0.00	bb			
24	t010122_024	0 ppb FC Mix 00002-104-01	6.266	107071	252.335	1.39	bb			
25	t010122_025	2.5 ppb FC Mix 00002-104-02	6.242	127936	303.081	4.34	bbX	74		
26	t010122_026	5 ppb FC Mix 00002-104-03	6.241	144180	344.029	6.72	bbX	34		
27	t010122_027	10 ppb FC Mix 00002-104-04	6.212	174504	415.631	10.89	bbX	9		
28	t010122_028	25 ppb FC Mix 00002-104-05	6.292	278888	692.659	27.00	MM	8		b
29	t010122_029	40 ppb FC Mix 00002-104-06	6.278	388285	944.455	41.64	MM	4		b
30	t010122_030	50 ppb FC Mix 00002-104-07	6.253	446576	1120.035	51.84	MM	4		b
31	t010122_031	75 ppb FC Mix 00002-104-08	6.242	570014	1520.355	75.09	MM	0		b
32	t010122_032	100 ppb FC Mix 00002-104-09	6.228	744606	2028.656	104.58	MM	5		b
33	t010122_033	250 ppb FC Mix 00002-104-10	6.195	1386363	4620.568	254.51	bb	2		
34	t010122_034	500 ppb FC Mix 00002-104-11	6.269	2300090	8907.358	500.86	bb	0		
35	t010122_035	750 ppb FC Mix 00002-104-12	6.252	3091049	13970.416	789.27	bb	5		
36	t010122_036	1000 ppb FC Mix 00002-104-13	6.242	3667595	18298.763	1033.68	bb	3		
37	t010122_037	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.289	119206	0.000	0.00	bb			
38	t010122_038	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.192	124131	0.000	0.00	bb			
39	t010122_039	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.278	117983	0.000	0.00	bb			
40	t010122_040	E00-1311-2001, 0ug PFOS, control,1/22/01..	6.240	118400	269.982	2.42	bb			
41	t010122_041	E00-1311-2002, 0ug PFOS, control,1/22/01..	6.241	120731	283.170	3.18	bb			
42	t010122_042	E00-1311-2003, 0ug PFOS, control,1/22/01..	6.241	120322	275.218	2.72	bb			
43	t010122_043	E00-1311-2003ms, 0ug PFOS, control,1/22/..	6.204	1168835	3577.816	194.28	bb			
44	t010122_044	E00-1311-2004, 0.75ug PFOS, control,1/22..	6.205	813735	1879.338	95.92	bb			
45	t010122_045	250 ppb FC Mix 00002-104-10	6.336	1424150	4176.378	228.87	bb	-8		
46	t010122_046	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.472	135069	0.000	0.00	bb			
47	t010122_047	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.412	137576	0.000	0.00	bb			
48	t010122_048	E00-1311-2005, 0.75ug PFOS, control,1/22..	6.459	813677	1895.496	96.85	bb			
49	t010122_049	E00-1311-2006, 0.75ug PFOS, control,1/22..	6.542	893031	1870.228	95.39	bb			
50	t010122_050	E00-1311-2006ms, 0.75ug PFOS, control,1/..	6.325	1715684	5964.233	331.94	bb			
51	t010122_051	E00-1311-2007, 7.5ug PFOS, control,1/22/..	6.338	5378311	14195.194	802.01	bb			
52	t010122_052	E00-1311-2008, 7.5ug PFOS, control,1/22/..	6.348	4162893	10426.933	587.71	bb			
53	t010122_053	250 ppb FC Mix 00002-104-10	6.264	1277079	4483.933	246.63	bb	-1		
54	t010122_054	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.386	136322	0.000	0.00	bb			
55	t010122_055	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.433	139432	0.000	0.00	bb			
56	t010122_056	E00-1311-2009, 7.5ug PFOS, control,1/22/..	6.241	4515612	11893.660	671.30	bb			
57	t010122_057	E00-1311-2009ms, 7.5ug PFOS, control,1/2..	6.508	4776306	13417.657	757.91	bb			
58	t010122_058	E00-1311-2010, 0ug PFOS, Clay,1/22/01 CMC	6.446	159367	358.722	7.58	bb			
59	t010122_059	E00-1311-2011, 0ug PFOS, Clay,1/22/01 CMC	6.386	136483	291.362	3.66	bb			
60	t010122_060	E00-1311-2012, 0ug PFOS, Clay,1/22/01 CMC	6.314	132405	278.898	2.93	bb			
61	t010122_061	250 ppb FC Mix 00002-104-10	6.298	1319212	4478.412	246.31	bb	-1		
62	t010122_062	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.410	136755	0.000	0.00	bb			
63	t010122_063	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.350	138103	0.000	0.00	bb			
64	t010122_064	E00-1311-2012ms, 0ug PFOS, Clay,1/22/01 ..	6.206	1229867	3235.341	174.47	bb			
65	t010122_065	E00-1311-2013, 0.75ug PFOS, Clay,1/22/01..	6.242	708722	1324.360	63.71	bb			
66	t010122_066	E00-1311-2014, 0.75ug PFOS, Clay,1/22/01..	6.253	808319	1521.178	75.13	bb			
67	t010122_067	E00-1311-2015, 0.75ug PFOS, Clay,1/22/01..	6.254	814123	1514.413	74.74	bb			
68	t010122_068	E00-1311-2015ms, 0.75ug PFOS, Clay,1/22/..	6.231	1843512	4986.936	275.64	bb			
69	t010122_069	250 ppb FC Mix 00002-104-10	6.336	1423348	4035.575	220.74	bb	-12		
70	t010122_070	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.579	144495	0.000	0.00	bb			
71	t010122_071	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.423	139217	0.000	0.00	bb			
72	t010122_072	E00-1311-2016, 7.5ug PFOS, Clay,1/22/01 ..	6.312	4604546	11133.142	627.98	bb			
73	t010122_073	E00-1311-2017, 7.5ug PFOS, Clay,1/22/01 ..	6.361	5217586	12089.190	682.43	bb			
74	t010122_074	E00-1311-2018, 7.5ug PFOS, Clay,1/22/01 ..	6.289	3567801	8221.149	461.56	bb			
75	t010122_075	E00-1311-2018ms, 7.5ug PFOS, Clay,1/22/0..	6.334	5013902	15883.856	897.56	bb			
76	t010122_076	E00-1311-2019, 0ug PFOS, Sediment,1/22/0..	6.403	167395	348.587	6.99	bb			
77	t010122_077	250 ppb FC Mix 00002-104-10	6.251	1438406	4448.547	244.58	bb	-2		
78	t010122_078	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.576	144134	0.000	0.00	bb			
79	t010122_079	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.483	149923	0.000	0.00	bb			
80	t010122_080	E00-1311-2020, 0ug PFOS, Sediment,1/22/0..	6.568	173961	366.458	8.03	bb			
81	t010122_081	E00-1311-2021, 0ug PFOS, Sediment,1/22/0..	6.409	168416	374.703	8.51	bb			
82	t010122_082	E00-1311-2021ms, 0ug PFOS, Sediment,1/22..	6.388	1139314	3540.157	192.10	bb			

Quantitated and Printed by CMC on 24 Jan 01 Study # E00-1311

CMC 1/24/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010122
Last modified: Mon Jan 22 15:03:42 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 24 06:53:49 2001
Job Code:

Printed: Wed Jan 24 07:06:18 2001

Compound 1: PFOS(499)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
83	t010122_083	E00-1311-2022, 0.75ug PFOS, Sediment,1/2..	6.252	1026372	2118.433	109.78	bb			
84	t010122_084	E00-1311-2023, 0.75ug PFOS, Sediment,1/2..	6.315	866060	1772.460	89.72	bb			
85	t010122_085	250 ppb FC Mix 00002-104-10	6.396	1372822	3983.564	217.73	bb	-13		
86	t010122_086	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.577	150111	0.000	0.00	bb			
87	t010122_087	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.326	142252	0.000	0.00	bb			
88	t010122_088	E00-1311-2024, 0.75ug PFOS, Sediment,1/2..	6.216	813373	1752.210	88.54	bb			
89	t010122_089	E00-1311-2024ms, 0.75ug PFOS, Sediment,1..	6.326	1607159	4558.469	250.93	bb			
90	t010122_090	E00-1311-2025, 7.5ug PFOS, Sediment,1/22..	6.542	4488760	10086.002	568.24	bb			
91	t010122_091	E00-1311-2026, 7.5ug PFOS, Sediment,1/22..	6.291	4178850	10795.713	608.75	MM			b
92	t010122_092	E00-1311-2027, 7.5ug PFOS, Sediment,1/22..	6.362	4349355	11084.279	625.20	bb			
93	t010122_093	250 ppb FC Mix 00002-104-10	6.241	1303467	4587.499	252.60	bb	1		
94	t010122_094	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.434	148641	0.000	0.00	bb			
95	t010122_095	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.518	152985	0.000	0.00	bb			
96	t010122_096	E00-1311-2027ms, 7.5ug PFOS, Sediment,1/..	6.372	5663187	16464.124	930.32	bb			
97	t010122_097	250 ppb FC Mix 00002-104-10	6.543	1365566	3642.340	198.01	bb			
98	t010122_098	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.290	149480	0.000	0.00	bb			
99	t010122_099	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.443	155378	0.000	0.00	bb			
100	t010122_100	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.241	144563	0.000	0.00	bb			
101	t010122_101	0 ppb FC Mix 00002-104-01	6.546	164749	346.252	6.85	bb			
102	t010122_102	2.5 ppb FC Mix 00002-104-02	6.278	166221	399.780	9.97	bbX	299		
103	t010122_103	5 ppb FC Mix 00002-104-03	6.309	181623	436.052	12.08	bbX	142		
104	t010122_104	10 ppb FC Mix 00002-104-04	6.452	212615	499.891	15.79	bbX	58		
105	t010122_105	25 ppb FC Mix 00002-104-05	6.486	292832	689.623	26.82	bb	7		
106	t010122_106	40 ppb FC Mix 00002-104-06	6.460	353915	841.984	35.68	MM	-11		b
107	t010122_107	50 ppb FC Mix 00002-104-07	6.326	439196	1162.333	54.30	bb	9		
108	t010122_108	75 ppb FC Mix 00002-104-08	6.313	583060	1595.061	79.42	bb	6		
109	t010122_109	100 ppb FC Mix 00002-104-09	6.376	690084	1977.399	101.61	bb	2		
110	t010122_110	250 ppb FC Mix 00002-104-10	6.314	1303673	4519.670	248.69	bb	-1		
111	t010122_111	500 ppb FC Mix 00002-104-11	6.229	2036643	8986.881	505.41	bb	1		
112	t010122_112	750 ppb FC Mix 00002-104-12	6.472	3110621	12414.655	700.94	MM	-7		b
113	t010122_113	1000 ppb FC Mix 00002-104-13	6.469	3415199	17167.793	970.01	bb	-3		
114	t010122_114	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.529	185076	0.000	0.00	bb			
115	t010122_115	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.436	151445	0.000	0.00	bb			

Quantitated and Printed by CMC on 24 Jan 01 Study # E00-1311

CMC 1/24/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010122
Last modified: Mon Jan 22 15:03:42 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 24 06:53:49 2001
Job Code:

Printed: Wed Jan 24 07:06:18 2001

Compound 2: I.S.(TH-PFOS)(427)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od	Comment
1	t010122_001	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
2	t010122_002	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.386	3928	3928.481	11.28	bb			
3	t010122_003	1000 ppb PFOS 00002-104-13	6.361	70361	70360.727	202.11	bb	-19		
4	t010122_004	1000 ppb PFOS 00002-104-13	6.386	70433	70432.680	202.32	bb	-19		
5	t010122_005	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.158	2936	2936.239	8.43	bb			
6	t010122_006	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.170	1130	1130.456	3.25	bb			
7	t010122_007	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.208	1051	1051.464	3.02	bb			
8	t010122_008	0 ppb FC Mix 00002-104-01	6.181	106107	106107.367	304.80	bb	22		
9	t010122_009	2.5 ppb FC Mix 00002-104-02	6.206	98510	98510.055	282.97	bb	13		
10	t010122_010	5 ppb FC Mix 00002-104-03	6.289	94782	94782.305	272.27	bb	9		
11	t010122_011	10 ppb FC Mix 00002-104-04	6.374	91062	91062.211	261.58	bb	5		
12	t010122_012	25 ppb FC Mix 00002-104-05	6.395	81305	81304.906	233.55	bb	-7		
13	t010122_013	40 ppb FC Mix 00002-104-06	6.360	57943	57943.418	166.44	bb	-33		
14	t010122_014	50 ppb FC Mix 00002-104-07	6.411	59374	59374.168	170.55	bb	-32		
15	t010122_015	75 ppb FC Mix 00002-104-08	6.255	74229	74228.898	213.23	bb	-15		
16	t010122_016	100 ppb FC Mix 00002-104-09	6.313	76742	76742.336	220.45	bb	-12		
17	t010122_017	250 ppb FC Mix 00002-104-10	6.289	64786	64785.551	186.10	bb	-26		
18	t010122_018	500 ppb FC Mix 00002-104-11	6.229	52881	52880.781	151.90	bb	-39		
19	t010122_019	750 ppb FC Mix 00002-104-12	6.397	50787	50787.223	145.89	bb	-42		
20	t010122_020	1000 ppb FC Mix 00002-104-13	6.423	52964	52963.672	152.14	bb	-39		
21	t010122_021	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.351	694	694.074	1.99	bb			
22	t010122_022	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
23	t010122_023	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.157	756	755.682	2.17	bb			
24	t010122_024	0 ppb FC Mix 00002-104-01	6.169	106080	106080.023	304.72	bb	22		
25	t010122_025	2.5 ppb FC Mix 00002-104-02	6.158	105530	105529.836	303.14	bb	21		
26	t010122_026	5 ppb FC Mix 00002-104-03	6.169	104773	104773.352	300.97	bb	20		
27	t010122_027	10 ppb FC Mix 00002-104-04	6.151	104963	104963.086	301.51	bb	21		
28	t010122_028	25 ppb FC Mix 00002-104-05	6.183	100658	100658.469	289.15	bb	16		
29	t010122_029	40 ppb FC Mix 00002-104-06	6.182	102780	102780.266	295.24	bb	18		
30	t010122_030	50 ppb FC Mix 00002-104-07	6.181	99679	99678.969	286.33	bb	15		
31	t010122_031	75 ppb FC Mix 00002-104-08	6.193	93730	93730.359	269.24	bb	8		
32	t010122_032	100 ppb FC Mix 00002-104-09	6.168	91761	91761.063	263.59	bb	5		
33	t010122_033	250 ppb FC Mix 00002-104-10	6.147	75010	75010.414	215.47	bb	-14		
34	t010122_034	500 ppb FC Mix 00002-104-11	6.185	64556	64555.895	185.44	bb	-26		
35	t010122_035	750 ppb FC Mix 00002-104-12	6.180	55314	55314.195	158.89	bb	-36		
36	t010122_036	1000 ppb FC Mix 00002-104-13	6.182	50107	50107.137	143.93	bb	-42		
37	t010122_037	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.193	727	727.358	2.09	bb			
38	t010122_038	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.132	1544	1544.154	4.44	bb			
39	t010122_039	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.182	1224	1224.169	3.52	bb			
40	t010122_040	E00-1311-2001, 0ug PFOS, control,1/22/01..	6.155	109637	109637.445	314.94	bb	26		
41	t010122_041	E00-1311-2002, 0ug PFOS, control,1/22/01..	6.169	106589	106589.008	306.18	bb	22		
42	t010122_042	E00-1311-2003, 0ug PFOS, control,1/22/01..	6.169	109297	109296.547	313.96	bb	26		
43	t010122_043	E00-1311-2003ms, 0ug PFOS, control,1/22/..	6.156	81672	81672.383	234.61	bb	-6		
44	t010122_044	E00-1311-2004, 0.75ug PFOS, control,1/22..	6.145	108248	108247.570	310.95	bb	24		
45	t010122_045	250 ppb FC Mix 00002-104-10	6.216	85250	85250.313	244.88	bb	-2		
46	t010122_046	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.255	811	810.623	2.33	bb			
47	t010122_047	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.243	744	743.885	2.14	bb			
48	t010122_048	E00-1311-2005, 0.75ug PFOS, control,1/22..	6.255	107317	107317.102	308.27	bb	23		
49	t010122_049	E00-1311-2006, 0.75ug PFOS, control,1/22..	6.421	119375	119374.625	342.91	bb	37		
50	t010122_050	E00-1311-2006ms, 0.75ug PFOS, control,1/..	6.277	71916	71915.523	206.58	bb	-17		
51	t010122_051	E00-1311-2007, 7.5ug PFOS, control,1/22/..	6.277	94721	94720.633	272.09	bb	9		
52	t010122_052	E00-1311-2008, 7.5ug PFOS, control,1/22/..	6.276	99811	99811.055	286.71	bb	15		
53	t010122_053	250 ppb FC Mix 00002-104-10	6.215	71203	71203.055	204.53	bb	-18		
54	t010122_054	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
55	t010122_055	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.372	530	529.970	1.52	bb			
56	t010122_056	E00-1311-2009, 7.5ug PFOS, control,1/22/..	6.181	94916	94916.367	272.65	bb	9		
57	t010122_057	E00-1311-2009ms, 7.5ug PFOS, control,1/2..	6.292	88993	88992.914	255.64	bb	2		
58	t010122_058	E00-1311-2010, 0ug PFOS, Clay,1/22/01 CMC	6.373	111066	111065.523	319.04	bb	28		
59	t010122_059	E00-1311-2011, 0ug PFOS, Clay,1/22/01 CMC	6.314	117108	117107.781	336.40	bb	35		
60	t010122_060	E00-1311-2012, 0ug PFOS, Clay,1/22/01 CMC	6.242	118685	118685.422	340.93	bb	36		
61	t010122_061	250 ppb FC Mix 00002-104-10	6.250	73643	73642.852	211.54	bb	-15		
62	t010122_062	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.350	613	612.897	1.76	bb			
63	t010122_063	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
64	t010122_064	E00-1311-2012ms, 0ug PFOS, Clay,1/22/01 ..	6.134	95034	95033.773	272.99	bb	9		
65	t010122_065	E00-1311-2013, 0.75ug PFOS, Clay,1/22/01..	6.170	133786	133785.656	384.30	bb	54		
66	t010122_066	E00-1311-2014, 0.75ug PFOS, Clay,1/22/01..	6.180	132844	132844.172	381.60	bb	53		
67	t010122_067	E00-1311-2015, 0.75ug PFOS, Clay,1/22/01..	6.170	134396	134395.797	386.06	bb	54		
68	t010122_068	E00-1311-2015ms, 0.75ug PFOS, Clay,1/22/..	6.159	92417	92417.078	265.47	bb	6		
69	t010122_069	250 ppb FC Mix 00002-104-10	6.204	88175	88175.039	253.29	bb	1		
70	t010122_070	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
71	t010122_071	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0						
72	t010122_072	E00-1311-2016, 7.5ug PFOS, Clay,1/22/01 ..	6.252	103397	103397.258	297.01	bb	19		
73	t010122_073	E00-1311-2017, 7.5ug PFOS, Clay,1/22/01 ..	6.301	107898	107897.750	309.94	bb	24		
74	t010122_074	E00-1311-2018, 7.5ug PFOS, Clay,1/22/01 ..	6.241	108495	108494.609	311.66	bb	25		
75	t010122_075	E00-1311-2018ms, 7.5ug PFOS, Clay,1/22/0..	6.274	78915	78915.063	226.69	bb	-9		
76	t010122_076	E00-1311-2019, 0ug PFOS, Sediment,1/22/0..	6.319	120053	120052.766	344.86	bb	38		
77	t010122_077	250 ppb FC Mix 00002-104-10	6.202	80836	80835.727	232.20	bb	-7		
78	t010122_078	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.311	623	623.047	1.79	bb			
79	t010122_079	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.399	547	547.122	1.57	bb			
80	t010122_080	E00-1311-2020, 0ug PFOS, Sediment,1/22/0..	6.291	118677	118677.195	340.90	bb	36		
81	t010122_081	E00-1311-2021, 0ug PFOS, Sediment,1/22/0..	6.325	112367	112366.523	322.78	bb	29		
82	t010122_082	E00-1311-2021ms, 0ug PFOS, Sediment,1/22..	6.327	80456	80456.438	231.11	bb	-8		

Quantitated and Printed by CMC on 24 Jan 01 Study # E00-1311

CMC 1/24/01

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study, LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t010122
Last modified: Mon Jan 22 15:03:42 2001
Method: C:\MASSLYNX\Decatur.PRO\MethDB\PFOS - THPFOS
Last modified: Wed Jan 24 06:53:49 2001
Job Code:

Printed: Wed Jan 24 07:06:18 2001

Compound 2: I.S. (TH-PFOS) (427)

#	Name	Samplelist Text	RT	Area	Response	ppb	Flags	%Dev	od Comment
83	t010122_083	E00-1311-2022, 0.75ug PFOS, Sediment,1/2..	6.180	121124	121123.969	347.93	bb	39	
84	t010122_084	E00-1311-2023, 0.75ug PFOS, Sediment,1/2..	6.182	122155	122155.008	350.90	bb	40	
85	t010122_085	250 ppb FC Mix 00002-104-10	6.240	86155	86155.375	247.48	bb	-1	
86	t010122_086	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0					
87	t010122_087	MeOH Blank, TN-A-4740, Aliq. 12/04/00	7.181	24442	24442.334	70.21	bb		
88	t010122_088	E00-1311-2024, 0.75ug PFOS, Sediment,1/2..	6.168	116050	116049.539	333.36	bb	33	
89	t010122_089	E00-1311-2024ms, 0.75ug PFOS, Sediment,1..	6.193	88141	88141.375	253.19	bb	1	
90	t010122_090	E00-1311-2025, 7.5ug PFOS, Sediment,1/22..	6.325	111262	111262.109	319.60	bb	28	
91	t010122_091	E00-1311-2026, 7.5ug PFOS, Sediment,1/22..	6.230	96771	96771.055	277.98	bb	11	
92	t010122_092	E00-1311-2027, 7.5ug PFOS, Sediment,1/22..	6.302	98097	98097.375	281.79	bb	13	
93	t010122_093	250 ppb FC Mix 00002-104-10	6.193	71034	71033.633	204.05	bb	-18	
94	t010122_094	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0					
95	t010122_095	MeOH Blank, TN-A-4740, Aliq. 12/04/00		0					
96	t010122_096	E00-1311-2027ms, 7.5ug PFOS, Sediment,1/..	6.216	85993	85992.836	247.02	bb	-1	
97	t010122_097	250 ppb FC Mix 00002-104-10	6.386	93729	93728.602	269.24	bb	8	
98	t010122_098	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.242	691	690.849	1.98	bb		
99	t010122_099	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.383	560	560.268	1.61	bb		
100	t010122_100	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.192	661	660.914	1.90	bb		
101	t010122_101	0 ppb FC Mix 00002-104-01	6.389	118951	118951.328	341.69	bb	37	
102	t010122_102	2.5 ppb FC Mix 00002-104-02	6.217	103945	103945.063	298.59	bb	19	
103	t010122_103	5 ppb FC Mix 00002-104-03	6.249	104129	104129.148	299.12	bb	20	
104	t010122_104	10 ppb FC Mix 00002-104-04	6.367	106331	106330.531	305.44	bb	22	
105	t010122_105	25 ppb FC Mix 00002-104-05	6.390	106157	106156.602	304.94	bb	22	
106	t010122_106	40 ppb FC Mix 00002-104-06	6.232	105084	105083.742	301.86	bb	21	
107	t010122_107	50 ppb FC Mix 00002-104-07	6.266	94464	94464.391	271.35	bb	9	
108	t010122_108	75 ppb FC Mix 00002-104-08	6.253	91385	91385.258	262.51	bb	5	
109	t010122_109	100 ppb FC Mix 00002-104-09	6.316	87246	87246.352	250.62	bb	0	
110	t010122_110	250 ppb FC Mix 00002-104-10	6.266	72111	72111.070	207.14	bb	-17	
111	t010122_111	500 ppb FC Mix 00002-104-11	6.181	56656	56656.000	162.75	bb	-35	
112	t010122_112	750 ppb FC Mix 00002-104-12	6.231	62640	62640.102	179.94	bb	-28	
113	t010122_113	1000 ppb FC Mix 00002-104-13	6.385	49733	49732.637	142.86	bb	-43	
114	t010122_114	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.240	951	951.098	2.73	bb		
115	t010122_115	MeOH Blank, TN-A-4740, Aliq. 12/04/00	6.363	553	552.916	1.59	bd		

Quantitated and Printed by CMC on 24 Jan 01 Study # E00-1311

CMC 1/24/01

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001122a
Last modified: Wed Nov 22 07:23:55 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001122a
Last modified: Mon Nov 27 07:42:34 2000
Job Code:

Printed: Mon Nov 27 07:50:41 2000

Compound 1: PFOS (499>99), func 1

#	Name	study no Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod Co
1	s00122a_001	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.156	202	0.00		bb	
2	s00122a_002	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		7.118	37418			bbI	
3	s00122a_003	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		7.117	36717			bbI	
4	s00122a_004	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.130	423	0.00		bb	
5	s00122a_005	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.130	197	0.00		bb	
6	s00122a_006	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		7.117	926	0.00		bb	
7	s00122a_007	E00-1311 2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Analyte		7.118	1416	0.00	-100	bb	
8	s00122a_008	E00-1311 4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Analyte		7.118	1776	1.57	-68	bb	
9	s00122a_009	E00-1311 9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Analyte		7.116	1900	3.32	-66	bb	
10	s00122a_010	E00-1311 24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Analyte		7.117	3566	27.40	11	bb	
11	s00122a_011	E00-1311 39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Analyte		7.115	4431	40.26	2	bb	
12	s00122a_012	E00-1311 49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Analyte		7.117	4984	48.62	-2	bb	
13	s00122a_013	E00-1311 74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Analyte		7.116	6826	77.36	4	bb	
14	s00122a_014	E00-1311 99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Analyte		7.115	8679	107.79	9	bb	
15	s00122a_015	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Analyte		7.117	16310	256.64	4	bb	
16	s00122a_016	E00-1311 495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Analyte		7.115	24541	565.92	14	bb	
17	s00122a_017	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		7.117	35819			bbI	
18	s00122a_018	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.130	263	0.00		bb	
19	s00122a_019	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.128	198	0.00		bb	
20	s00122a_020	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.129	186	0.00		bb	
21	s00122a_021	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		7.117	855	0.00		bb	
22	s00122a_022	E00-1311 2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Standard	2.47	7.103	1461	0.00	-100	bbX	
23	s00122a_023	E00-1311 4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Standard	4.95	7.115	1741	1.08	-78	bbX	
24	s00122a_024	E00-1311 9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Standard	9.90	7.117	1880	3.03	-69	bbX	
25	s00122a_025	E00-1311 24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Standard	24.75	7.106	3444	25.60	3	bb	
26	s00122a_026	E00-1311 39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Standard	39.60	7.104	4497	41.26	4	bb	
27	s00122a_027	E00-1311 49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Standard	49.50	7.106	5027	49.28	-0	bb	
28	s00122a_028	E00-1311 74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Standard	74.26	7.115	7129	82.23	11	bb	
29	s00122a_029	E00-1311 99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Standard	99.20	7.103	8453	104.00	5	bb	
30	s00122a_030	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Standard	247.90	7.105	16335	257.22	4	bb	
31	s00122a_031	E00-1311 495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Standard	495.90	7.103	23694	502.61	1	bb	
32	s00122a_032	E00-1311 991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Standard	991.78	7.103	34689			bbXI	
33	s00122a_033	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.128	201	0.00		bb	
34	s00122a_034	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.118	161	0.00		bb	
35	s00122a_035	E00-1311 E00-1311-1019 24 hour, 0mg/L, S2, C-2	Analyte		7.117	237	0.00		bb	
36	s00122a_036	E00-1311 E00-1311-1020 24 hour, 0mg/L, S2, C-2	Analyte		7.131	156	0.00		bb	
37	s00122a_037	E00-1311 E00-1311-1021 24 hour, 0mg/L, S2, C-2	Analyte		7.124	159	0.00		bb	
38	s00122a_038	E00-1311 E00-1311-1021 24 hour, 0mg/L, S2, C-2, MS	Analyte		7.118	19144	328.62		bb	
39	s00122a_039	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.104	14927	225.85	-9	bb	
40	s00122a_040	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.128	154	0.00		bb	
41	s00122a_041	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.129	128	0.00		bb	
42	s00122a_042	E00-1311 E00-1311-1022 24 hour, 0.10mg/L, S2, C-2	Analyte		7.116	728	0.00		bb	
43	s00122a_043	E00-1311 E00-1311-1023 24 hour, 0.10mg/L, S2, C-2	Analyte		7.118	601	0.00		bb	
44	s00122a_044	E00-1311 E00-1311-1024 24 hour, 0.10mg/L, S2, C-2	Analyte		7.119	859	0.00		bb	
45	s00122a_045	E00-1311 E00-1311-1024 24 hour, 0.10mg/L, S2, C-2, MS	Analyte		7.115	19389	335.59		bb	
46	s00122a_046	E00-1311 E00-1311-1025 24 hour, 1.0mg/L, S2, C-2	Analyte		7.118	5002	48.91		bb	
47	s00122a_047	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.106	14912	225.53	-9	bb	
48	s00122a_048	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.129	147	0.00		bb	
49	s00122a_049	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.129	136	0.00		bb	
50	s00122a_050	E00-1311 E00-1311-1026 24 hour, 1.0mg/L, S2, C-2	Analyte		7.116	6414	70.82		bb	
51	s00122a_051	E00-1311 E00-1311-1027 24 hour, 1.0mg/L, S2, C-2	Analyte		7.119	5781	60.90		bb	
52	s00122a_052	E00-1311 E00-1311-1027 24 hour, 1.0mg/L, S2, C-2, MS	Analyte		7.106	20890	382.11		bb	
53	s00122a_053	E00-1311 E00-1311-1028 24 hour, 0mg/L, S2, C-3	Analyte		7.116	198	0.00		bb	
54	s00122a_054	E00-1311 E00-1311-1029 24 hour, 0mg/L, S2, C-3	Analyte		7.127	146	0.00		bb	
55	s00122a_055	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.105	15212	232.03	-6	bb	
56	s00122a_056	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	544	0.00		bb	
57	s00122a_057	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.103	373	0.00		bb	
58	s00122a_058	E00-1311 E00-1311-1030 24 hour, 0mg/L, S2, C-3	Analyte		7.129	155	0.00		bb	
59	s00122a_059	E00-1311 E00-1311-1030 24 hour, 0mg/L, S2, C-3 MS	Analyte		7.113	19173	329.42		bb	
60	s00122a_060	E00-1311 E00-1311-1031 24 hour, 0.10mg/L, S2, C-3	Analyte		7.117	1248	0.00		bb	
61	s00122a_061	E00-1311 E00-1311-1032 24 hour, 0.10mg/L, S2, C-3	Analyte		7.117	1124	0.00		bb	
62	s00122a_062	E00-1311 E00-1311-1033 24 hour, 0.10mg/L, S2, C-3	Analyte		7.128	883	0.00		bb	
63	s00122a_063	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.118	15129	230.22	-7	bb	
64	s00122a_064	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.127	321	0.00		bb	
65	s00122a_065	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.141	134	0.00		bb	
66	s00122a_066	E00-1311 E00-1311-1033 24 hour, 0.10mg/L, S2, C-3 MS	Analyte		7.118	19397	335.81		bb	
67	s00122a_067	E00-1311 E00-1311-1034 24 hour, 1.0mg/L, S2, C-3	Analyte		7.128	12990	186.09		bb	
68	s00122a_068	E00-1311 E00-1311-1035 24 hour, 1.0mg/L, S2, C-3	Analyte		7.118	10723	143.43		bb	
69	s00122a_069	E00-1311 E00-1311-1036 24 hour, 1.0mg/L, S2, C-3	Analyte		7.129	7873	94.36		bb	
70	s00122a_070	E00-1311 E00-1311-1036 24 hour, 1.0mg/L, S2, C-3 MS	Analyte		7.117	22076	425.37		bb	
71	s00122a_071	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.117	14963	226.63	-9	bb	
72	s00122a_072	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.142	158	0.00		bb	
73	s00122a_073	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.143	139	0.00		bb	
74	s00122a_074	E00-1311 E00-1311-1037 24 hour, 0mg/L, S2, C-4	Analyte		7.128	226	0.00		bb	
75	s00122a_075	E00-1311 E00-1311-1038 24 hour, 0mg/L, S2, C-4	Analyte		7.142	190	0.00		bb	
76	s00122a_076	E00-1311 E00-1311-1039 24 hour, 0mg/L, S2, C-4	Analyte		7.139	168	0.00		bb	
77	s00122a_077	E00-1311 E00-1311-1039 24 hour, 0mg/L, S2, C-4 MS	Analyte		7.132	19233	331.12		bb	
78	s00122a_078	E00-1311 E00-1311-1040 24 hour, 0.10mg/L, S2, C-4	Analyte		7.130	783	0.00		bb	
79	s00122a_079	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.129	15169	231.09	-7	bb	
80	s00122a_080	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.144	166	0.00		bb	
81	s00122a_081	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.142	165	0.00		bb	
82	s00122a_082	E00-1311 E00-1311-1041 24 hour, 0.10mg/L, S2, C-4	Analyte		7.130	1328	0.00		bb	
83	s00122a_083	E00-1311 E00-1311-1042 24 hour, 0.10mg/L, S2, C-4	Analyte		7.130	1062	0.00		bb	
84	s00122a_084	E00-1311 E00-1311-1042 24 hour, 0.10mg/L, S2, C-4 MS	Analyte		7.130	19629	342.57		bb	
85	s00122a_085	E00-1311 E00-1311-1043 24 hour, 1.0mg/L, S2, C-4	Analyte		7.129	2728	15.18		bb	
86	s00122a_086	E00-1311 E00-1311-1044 24 hour, 1.0mg/L, S2, C-4	Analyte		7.130	5894	62.65		bb	
87	s00122a_087	E00-1311 247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.130	15343	234.87	-5	bb	
88	s00122a_088	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.140	174	0.00		bb	
89	s00122a_089	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.150	133	0.00		bb	

SOUP 020199: quantitated and printed by CMC on 11/27/00

CMC 11/27/00

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001122a
Last modified: Wed Nov 22 07:23:55 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001122a
Last modified: Mon Nov 27 07:42:34 2000
Job Code:

Printed: Mon Nov 27 07:50:41 2000

Compound 1: PFOS (499>99), func 1

#	Name	study no	Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
90	s00122a_090	E00-1311	E00-1311-1045 24 hour, 1.0mg/L, S2, C-4	Analyte		7.123	3002	19.14		bb		
91	s00122a_091	E00-1311	E00-1311-1045 24 hour, 1.0mg/L, S2, C-4 MS	Analyte		7.128	20271	362.03		bb		
92	s00122a_092	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	247.90	7.114	15179	231.29	-7	bb		
93	s00122a_093	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.139	140	0.00		bb		
94	s00122a_094	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.148	149	0.00		bb		
95	s00122a_095	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.149	164	0.00		bb		
96	s00122a_096	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		7.117	803	0.00		bb		
97	s00122a_097	E00-1311	2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Standard	2.47	7.118	1332	0.00	-100	bbX		
98	s00122a_098	E00-1311	4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Standard	4.95	7.121	1713	0.67	-86	bbX		
99	s00122a_099	E00-1311	9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Standard	9.90	7.124	1795	1.84	-81	bbX		
100	s00122a_100	E00-1311	24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Standard	24.75	7.122	3284	23.25	-6	bb		
101	s00122a_101	E00-1311	39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Standard	39.60	7.113	4210	36.94	-7	bb		
102	s00122a_102	E00-1311	49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Standard	49.50	7.117	4728	44.74	-10	bb		
103	s00122a_103	E00-1311	74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Standard	74.26	7.121	6565	73.21	-1	bb		
104	s00122a_104	E00-1311	99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Standard	99.20	7.117	8022	96.81	-2	bb		
105	s00122a_105	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Standard	247.90	7.116	15354	235.13	-5	bb		
106	s00122a_106	E00-1311	495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Standard	495.90	7.117	23493	491.10	-1	bb		
107	s00122a_107	E00-1311	991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Standard	991.78	7.128	34251			bbXI		
108	s00122a_108	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.142	241	0.00		bb		
109	s00122a_109	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.143	189	0.00		bb		
110	s00122a_110	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.150	150	0.00		bb		

SOUP 020199: quantitated and printed by CMC on 11/27/00

CMC 11/27/00

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001122a
Last modified: Wed Nov 22 07:23:55 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001122a
Last modified: Mon Nov 27 07:42:34 2000
Job Code:

Printed: Mon Nov 27 07:50:41 2000

Compound 2: THPFOS (427>80), func 2

#	Name	study no	Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
1	s00122a_001	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
2	s00122a_002	E00-1311	991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		6.939	3051	217.69	-12	bb		
3	s00122a_003	E00-1311	991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		6.937	3040	216.91	-12	bb		
4	s00122a_004	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
5	s00122a_005	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
6	s00122a_006	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		6.938	3421	244.07	-1	bb		
7	s00122a_007	E00-1311	2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Analyte		6.939	3762	268.38	9	bb		
8	s00122a_008	E00-1311	4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Analyte		6.940	4037	288.03	17	bb		
9	s00122a_009	E00-1311	9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Analyte		6.938	3673	262.10	6	bb		
10	s00122a_010	E00-1311	24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Analyte		6.939	4110	293.25	19	bb		
11	s00122a_011	E00-1311	39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Analyte		6.935	3660	261.13	6	bb		
12	s00122a_012	E00-1311	49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Analyte		6.937	3241	231.28	-6	bb		
13	s00122a_013	E00-1311	74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Analyte		6.937	3276	233.72	-5	bb		
14	s00122a_014	E00-1311	99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Analyte		6.936	3264	232.91	-5	bb		
15	s00122a_015	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Analyte		6.926	3307	235.96	-4	bb		
16	s00122a_016	E00-1311	495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Analyte		6.936	3143	224.24	-9	bb		
17	s00122a_017	E00-1311	991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Analyte		6.926	3129	223.23	-9	bb		
18	s00122a_018	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
19	s00122a_019	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
20	s00122a_020	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
21	s00122a_021	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		6.939	3449	246.08	-0	bb		
22	s00122a_022	E00-1311	2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Standard	246.10	6.924	4070	290.39	18	bb		
23	s00122a_023	E00-1311	4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Standard	246.10	6.924	4333	309.17	26	bb		
24	s00122a_024	E00-1311	9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Standard	246.10	6.925	3650	260.43	6	bb		
25	s00122a_025	E00-1311	24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Standard	246.10	6.926	4008	285.94	16	bb		
26	s00122a_026	E00-1311	39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Standard	246.10	6.925	3746	267.24	9	bb		
27	s00122a_027	E00-1311	49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Standard	246.10	6.926	3326	237.33	-4	bb		
28	s00122a_028	E00-1311	74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Standard	246.10	6.923	3445	245.81	-0	bb		
29	s00122a_029	E00-1311	99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Standard	246.10	6.924	3451	246.25	0	bb		
30	s00122a_030	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Standard	246.10	6.926	3421	244.07	-1	bb		
31	s00122a_031	E00-1311	495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Standard	246.10	6.924	2921	208.41	-15	bb		
32	s00122a_032	E00-1311	991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Standard	246.10	6.924	2813	200.70	-18	bb		
33	s00122a_033	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
34	s00122a_034	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
35	s00122a_035	E00-1311	E00-1311-1019 24 hour, 0mg/L, S2, C-2	Analyte		6.937	2593	184.99	-26	bb		
36	s00122a_036	E00-1311	E00-1311-1020 24 hour, 0mg/L, S2, C-2	Analyte		6.927	2607	185.98	-26	bb		
37	s00122a_037	E00-1311	E00-1311-1021 24 hour, 0mg/L, S2, C-2	Analyte		6.932	2649	189.00	-24	bb		
38	s00122a_038	E00-1311	E00-1311-1021 24 hour, 0mg/L, S2, C-2, MS	Analyte		6.927	2468	176.07	-30	bb		
39	s00122a_039	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.925	3004	214.36	-13	bb		
40	s00122a_040	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
41	s00122a_041	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
42	s00122a_042	E00-1311	E00-1311-1022 24 hour, 0.10mg/L, S2, C-2	Analyte		6.925	2680	191.25	-24	bb		
43	s00122a_043	E00-1311	E00-1311-1023 24 hour, 0.10mg/L, S2, C-2	Analyte		6.926	2654	189.34	-24	bb		
44	s00122a_044	E00-1311	E00-1311-1024 24 hour, 0.10mg/L, S2, C-2	Analyte		6.927	2684	191.51	-23	bb		
45	s00122a_045	E00-1311	E00-1311-1024 24 hour, 0.10mg/L, S2, C-2, MS	Analyte		6.936	2550	181.94	-27	bb		
46	s00122a_046	E00-1311	E00-1311-1025 24 hour, 1.0mg/L, S2, C-2	Analyte		6.926	2669	190.42	-24	bb		
47	s00122a_047	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.926	3101	221.29	-10	bb		
48	s00122a_048	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
49	s00122a_049	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
50	s00122a_050	E00-1311	E00-1311-1026 24 hour, 1.0mg/L, S2, C-2	Analyte		6.925	2687	191.68	-23	bb		
51	s00122a_051	E00-1311	E00-1311-1027 24 hour, 1.0mg/L, S2, C-2	Analyte		6.926	2648	188.95	-24	bb		
52	s00122a_052	E00-1311	E00-1311-1027 24 hour, 1.0mg/L, S2, C-2, MS	Analyte		6.926	2546	181.67	-27	bb		
53	s00122a_053	E00-1311	E00-1311-1028 24 hour, 0mg/L, S2, C-3	Analyte		6.924	2726	194.48	-22	bb		
54	s00122a_054	E00-1311	E00-1311-1029 24 hour, 0mg/L, S2, C-3	Analyte		6.935	2708	193.23	-23	bb		
55	s00122a_055	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.926	3128	223.18	-9	bb		
56	s00122a_056	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
57	s00122a_057	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
58	s00122a_058	E00-1311	E00-1311-1030 24 hour, 0mg/L, S2, C-3	Analyte		6.939	2729	194.71	-22	bb		
59	s00122a_059	E00-1311	E00-1311-1030 24 hour, 0mg/L, S2, C-3 MS	Analyte		6.934	2641	188.46	-25	bb		
60	s00122a_060	E00-1311	E00-1311-1031 24 hour, 0.10mg/L, S2, C-3	Analyte		6.938	2702	192.79	-23	bb		
61	s00122a_061	E00-1311	E00-1311-1032 24 hour, 0.10mg/L, S2, C-3	Analyte		6.938	2695	192.30	-23	bb		
62	s00122a_062	E00-1311	E00-1311-1033 24 hour, 0.10mg/L, S2, C-3	Analyte		6.937	2687	191.73	-23	bb		
63	s00122a_063	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.939	3115	222.22	-10	bb		
64	s00122a_064	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
65	s00122a_065	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
66	s00122a_066	E00-1311	E00-1311-1033 24 hour, 0.10mg/L, S2, C-3 MS	Analyte		6.938	2598	185.34	-26	bb		
67	s00122a_067	E00-1311	E00-1311-1034 24 hour, 1.0mg/L, S2, C-3	Analyte		6.936	2577	183.88	-26	bb		
68	s00122a_068	E00-1311	E00-1311-1035 24 hour, 1.0mg/L, S2, C-3	Analyte		6.938	2600	185.49	-26	bb		
69	s00122a_069	E00-1311	E00-1311-1036 24 hour, 1.0mg/L, S2, C-3	Analyte		6.937	2635	187.99	-25	bb		
70	s00122a_070	E00-1311	E00-1311-1036 24 hour, 1.0mg/L, S2, C-3 MS	Analyte		6.938	2502	178.55	-29	bb		
71	s00122a_071	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.938	3063	218.57	-11	bb		
72	s00122a_072	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
73	s00122a_073	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
74	s00122a_074	E00-1311	E00-1311-1037 24 hour, 0mg/L, S2, C-4	Analyte		6.937	2707	193.17	-23	bb		
75	s00122a_075	E00-1311	E00-1311-1038 24 hour, 0mg/L, S2, C-4	Analyte		6.938	2802	199.93	-20	bb		
76	s00122a_076	E00-1311	E00-1311-1039 24 hour, 0mg/L, S2, C-4	Analyte		6.949	2718	193.94	-22	bb		
77	s00122a_077	E00-1311	E00-1311-1039 24 hour, 0mg/L, S2, C-4 MS	Analyte		6.940	2612	186.40	-25	bb		
78	s00122a_078	E00-1311	E00-1311-1040 24 hour, 0.10mg/L, S2, C-4	Analyte		6.951	2728	194.65	-22	bb		
79	s00122a_079	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.937	3086	220.15	-11	bb		
80	s00122a_080	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
81	s00122a_081	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
82	s00122a_082	E00-1311	E00-1311-1041 24 hour, 0.10mg/L, S2, C-4	Analyte		6.938	2750	196.21	-22	bb		
83	s00122a_083	E00-1311	E00-1311-1042 24 hour, 0.10mg/L, S2, C-4	Analyte		6.938	2815	200.86	-20	bb		
84	s00122a_084	E00-1311	E00-1311-1042 24 hour, 0.10mg/L, S2, C-4 MS	Analyte		6.951	2704	192.91	-23	bb		
85	s00122a_085	E00-1311	E00-1311-1043 24 hour, 1.0mg/L, S2, C-4	Analyte		6.949	2728	194.61	-22	bb		
86	s00122a_086	E00-1311	E00-1311-1044 24 hour, 1.0mg/L, S2, C-4	Analyte		6.937	2773	197.84	-21	bb		
87	s00122a_087	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.939	3103	221.43	-10	bb		
88	s00122a_088	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
89	s00122a_089	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								

SOUP 020199: quantitated and printed by CMC on 11/27/00

CMC 11/27/00

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001122a
Last modified: Wed Nov 22 07:23:55 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001122a
Last modified: Mon Nov 27 07:42:34 2000
Job Code:

Printed: Mon Nov 27 07:50:41 2000

Compound 2: THPFOS (427>80), func 2

#	Name	study no	Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
90	s00122a_090	E00-1311	E00-1311-1045 24 hour, 1.0mg/L, S2, C-4	Analyte		6.944	2748	196.05	-22	bb		
91	s00122a_091	E00-1311	E00-1311-1045 24 hour, 1.0mg/L, S2, C-4 MS	Analyte		6.949	2591	184.90	-26	bb		
92	s00122a_092	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	QC	246.10	6.935	3076	219.46	-11	bb		
93	s00122a_093	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
94	s00122a_094	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
95	s00122a_095	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
96	s00122a_096	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-03-00 MLA	Analyte		6.938	3265	232.93	-5	bb		
97	s00122a_097	E00-1311	2.47ppb PFOS 00002-86-02, Aliq. 11-03-00 MLA	Standard	246.10	6.939	3759	268.23	9	bb		
98	s00122a_098	E00-1311	4.95 ppb PFOS 00002-86-03, Aliq. 11-03-00 MLA	Standard	246.10	6.941	4012	286.25	16	bb		
99	s00122a_099	E00-1311	9.9 ppb PFOS 00002-86-04, Aliq. 11-03-00 MLA	Standard	246.10	6.945	3443	245.67	-0	bb		
100	s00122a_100	E00-1311	24.75 ppb PFOS 00002-86-05, Aliq. 11-03-00 MLA	Standard	246.10	6.942	3774	269.26	9	bb		
101	s00122a_101	E00-1311	39.6 ppb PFOS 00002-86-06, Aliq. 11-03-00 MLA	Standard	246.10	6.934	3346	238.73	-3	bb		
102	s00122a_102	E00-1311	49.5 ppb PFOS 00002-86-07 Aliq. 11-03-00 MLA	Standard	246.10	6.937	3009	214.72	-13	bb		
103	s00122a_103	E00-1311	74.26 ppb PFOS 00002-86-08, Aliq. 11-03-00 MLA	Standard	246.10	6.942	3152	224.87	-9	bb		
104	s00122a_104	E00-1311	99.2 ppb PFOS 00002-86-09, Aliq. 11-03-00 MLA	Standard	246.10	6.938	3125	222.98	-9	bb		
105	s00122a_105	E00-1311	247.9 ppb PFOS 00002-86-10, Aliq. 11-03-00 MLA	Standard	246.10	6.936	3159	225.42	-8	bb		
106	s00122a_106	E00-1311	495.9 ppb PFOS 00002-86-12 Aliq. 11-03-00 MLA	Standard	246.10	6.938	3013	214.96	-13	bb		
107	s00122a_107	E00-1311	991.78 ppb PFOS 00002-86-13, aliq. 11-03-00 MLA	Standard	246.10	6.949	2906	207.36	-16	bb		
108	s00122a_108	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
109	s00122a_109	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
110	s00122a_110	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								

SOUP 020199: quantitated and printed by CMC on 11/27/00

CMC 11/27/00

E00-1311 PFOS SOIL SAMP analysis on Rush, 02-22-01

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount ng/mL	Compound Name	RT	Area	Amount ng/mL	% Dev
2/22/01 20:53	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0022.D	00002-104-01		THPFOS	5.553	686380	249.3	PFOS	0	0	0.0	
2/22/01 21:04	D:\chem\Rush.i\R010222.b	CALIB_1	RUSH0023.D	00002-104-02	did not meet accuracy requirement	THPFOS	5.561	684164	249.3	PFOS	5.785	56147	0.0	X
2/22/01 21:16	D:\chem\Rush.i\R010222.b	CALIB_2	RUSH0024.D	00002-104-03	Cal std 2 (LOQ)	THPFOS	5.558	689138	249.3	PFOS	5.775	93148	5.0	0.0%
2/22/01 21:27	D:\chem\Rush.i\R010222.b	CALIB_3	RUSH0025.D	00002-104-04	Cal std 3	THPFOS	5.554	679632	249.3	PFOS	5.778	188431	10.0	0.0%
2/22/01 21:38	D:\chem\Rush.i\R010222.b	CALIB_4	RUSH0026.D	00002-104-05	Cal std 4	THPFOS	5.545	671308	249.3	PFOS	5.769	401765	25.0	0.0%
2/22/01 21:49	D:\chem\Rush.i\R010222.b	CALIB_5	RUSH0027.D	00002-104-06	Cal std 5	THPFOS	5.54	684907	249.3	PFOS	5.764	664873	40.1	0.3%
2/22/01 22:00	D:\chem\Rush.i\R010222.b	CALIB_6	RUSH0028.D	00002-104-07	Cal std 6	THPFOS	5.539	678783	249.3	PFOS	5.756	858165	50.2	0.4%
2/22/01 22:11	D:\chem\Rush.i\R010222.b	CALIB_7	RUSH0029.D	00002-104-08	Cal std 7	THPFOS	5.552	674589	249.3	PFOS	5.776	1276020	74.8	0.3%
2/22/01 22:22	D:\chem\Rush.i\R010222.b	CALIB_8	RUSH0030.D	00002-104-09	Cal std 8	THPFOS	5.567	668747	249.3	PFOS	5.784	1657895	99.5	0.5%
2/22/01 22:34	D:\chem\Rush.i\R010222.b	CALIB_9	RUSH0031.D	00002-104-10	Cal std 9	THPFOS	5.56	644602	249.3	PFOS	5.777	3779794	249.9	0.0%
2/22/01 22:45	D:\chem\Rush.i\R010222.b	CALIB_10	RUSH0032.D	00002-104-11	Cal std 10	THPFOS	5.551	619576	249.3	PFOS	5.775	6785120	500.1	0.0%
2/22/01 22:56	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0033.D	00002-104-12	excluded to better fit data	THPFOS	5.549	595985	249.3	PFOS	5.773	9501199	776.5	X
2/22/01 23:07	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0034.D	00002-104-13	excluded to better fit data	THPFOS	5.555	576693	249.3	PFOS	0	0	0.0	X
2/23/01 1:32	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0047.D	00002-104-03		THPFOS	5.561	713865	249.3	PFOS	5.779	94822	5.3	5.9%
2/23/01 1:43	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0048.D	00002-104-10		THPFOS	5.567	652248	249.3	PFOS	5.785	3852487	251.6	0.6%
2/23/01 4:08	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0061.D	00002-104-03		THPFOS	5.555	716157	249.3	PFOS	5.78	93043	5.2	3.6%
2/23/01 4:20	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0062.D	00002-104-10		THPFOS	5.547	659416	249.3	PFOS	5.771	3867395	249.7	0.1%
2/23/01 6:45	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0075.D	00002-104-03		THPFOS	5.545	723145	249.3	PFOS	5.769	92534	5.1	2.1%
2/23/01 6:56	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0076.D	00002-104-10		THPFOS	5.539	654913	249.3	PFOS	5.763	3872492	251.9	0.7%
2/23/01 9:21	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0089.D	00002-104-03		THPFOS	5.54	557797	249.3	PFOS	5.771	94512	6.7	34.6%
											check standard >30% due to low THPFOS response			
2/23/01 9:33	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0090.D	00002-104-10		THPFOS	5.532	649228	249.3	PFOS	5.763	3834036	251.5	0.6%
2/23/01 11:58	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0103.D	00002-104-03		THPFOS	5.507	714024	249.3	PFOS	5.731	91142	5.1	1.8%
2/23/01 12:09	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0104.D	00002-104-10		THPFOS	5.51	640235	249.3	PFOS	5.741	3727210	247.7	0.9%
2/23/01 14:35	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0117.D	00002-104-03		THPFOS	5.537	748169	249.3	PFOS	5.768	94563	5.0	0.9%
2/23/01 14:46	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0118.D	00002-104-10		THPFOS	5.536	662645	249.3	PFOS	5.76	3860610	247.9	0.9%
2/23/01 16:49	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0129.D	00002-104-03		THPFOS	5.509	729420	249.3	PFOS	5.733	94353	5.2	3.2%
2/23/01 17:00	D:\chem\Rush.i\R010222.b	CCALIB_1	RUSH0130.D	00002-104-10		THPFOS	5.511	637769	249.3	PFOS	5.728	3687433	245.8	1.7%
2/23/01 17:34	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0133.D	00002-104-01		THPFOS	5.507	718171	249.3	PFOS	0	0	0.0	
2/23/01 17:45	D:\chem\Rush.i\R010222.b	CALIB_1	RUSH0134.D	00002-104-02	did not meet accuracy requirement	THPFOS	5.454	728159	249.3	PFOS	5.735	50380	2.8	X
2/23/01 17:56	D:\chem\Rush.i\R010222.b	CALIB_2	RUSH0135.D	00002-104-03	Cal std 12 (LOQ)	THPFOS	5.505	734029	249.3	PFOS	5.729	89391	5.0	0.3%
2/23/01 18:07	D:\chem\Rush.i\R010222.b	CALIB_3	RUSH0136.D	00002-104-04	Cal std 13	THPFOS	5.499	723187	249.3	PFOS	5.716	185120	10.5	4.7%
2/23/01 18:18	D:\chem\Rush.i\R010222.b	CALIB_4	RUSH0137.D	00002-104-05	Cal std 14	THPFOS	5.51	711239	249.3	PFOS	5.727	385518	22.1	11.5%
2/23/01 18:29	D:\chem\Rush.i\R010222.b	CALIB_5	RUSH0138.D	00002-104-06	Cal std 15	THPFOS	5.502	704611	249.3	PFOS	5.719	629059	36.4	8.9%
2/23/01 18:41	D:\chem\Rush.i\R010222.b	CALIB_6	RUSH0139.D	00002-104-07	Cal std 16	THPFOS	5.519	706699	249.3	PFOS	5.729	832703	48.3	3.5%
2/23/01 18:52	D:\chem\Rush.i\R010222.b	CALIB_7	RUSH0140.D	00002-104-08	Cal std 17	THPFOS	5.509	702051	249.3	PFOS	5.726	1248636	73.2	2.4%
2/23/01 19:03	D:\chem\Rush.i\R010222.b	CALIB_8	RUSH0141.D	00002-104-09	Cal std 18	THPFOS	5.513	685302	249.3	PFOS	5.73	1612642	98.2	1.8%
2/23/01 19:14	D:\chem\Rush.i\R010222.b	CALIB_9	RUSH0142.D	00002-104-10	Cal std 19	THPFOS	5.511	646270	249.3	PFOS	5.728	3713608	250.5	0.2%
2/23/01 19:25	D:\chem\Rush.i\R010222.b	CALIB_10	RUSH0143.D	00002-104-11	Cal std 20	THPFOS	5.512	610214	249.3	PFOS	5.722	6606557	499.8	0.0%
2/23/01 19:36	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0144.D	00002-104-12	excluded to better fit data	THPFOS	5.508	573864	249.3	PFOS	5.725	9143085	776.4	X
2/23/01 19:48	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0145.D	00002-104-13	excluded to better fit data	THPFOS	5.505	562318	249.3	PFOS	5.722	11261687	1017.6	X
								average	672464					
								std deviation	45783					
								%CV	6.8%					

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2/22/01 23:41	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0037.D	1311-4052-S1	THPFOS	5.561	738374	249.3	PFOS	5.792	210932	11.3
2/22/01 23:52	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0038.D	1311-4053-S1	THPFOS	5.565	729881	249.3	PFOS	5.789	186387	10.1
2/23/01 0:03	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0039.D	1311-4054-S1	THPFOS	5.567	748027	249.3	PFOS	5.791	214795	11.3
2/23/01 0:14	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0040.D	1311-4054MS-S1	THPFOS	5.567	648640	249.3	PFOS	5.798	3273596	212.3
2/23/01 0:25	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0041.D	1311-4055-S1	THPFOS	5.559	720097	249.3	PFOS	5.79	162434	8.9
2/23/01 0:36	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0042.D	1311-4056-S1	THPFOS	5.56	718694	249.3	PFOS	5.792	159201	8.8
2/23/01 0:47	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0043.D	1311-4057-S1	THPFOS	5.565	713613	249.3	PFOS	5.797	404553	22.4
2/23/01 0:59	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0044.D	1311-4057MS-S1	THPFOS	5.567	650599	249.3	PFOS	5.791	3223948	208.2
2/23/01 1:10	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0045.D	1311-4058-S1	THPFOS	5.566	698677	249.3	PFOS	5.797	199972	11.3
2/23/01 1:21	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0046.D	1311-4059-S1	THPFOS	5.561	697037	249.3	PFOS	5.785	184162	10.4
2/23/01 2:17	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0051.D	1311-4060-S1	THPFOS	5.558	712727	249.3	PFOS	5.775	188818	10.5
2/23/01 2:28	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0052.D	1311-4060MS-S1	THPFOS	5.561	623982	249.3	PFOS	5.785	3147881	212.2
2/23/01 2:39	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0053.D	1311-4061-S1	THPFOS	5.555	713961	249.3	PFOS	0	0	0.0
2/23/01 2:50	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0054.D	1311-4062-S1	THPFOS	5.559	722949	249.3	PFOS	5.783	52969	3.0
2/23/01 3:01	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0055.D	1311-4063-S1	THPFOS	5.561	717685	249.3	PFOS	0	0	0.0
2/23/01 3:13	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0056.D	1311-4063MS-S1	THPFOS	5.554	626622	249.3	PFOS	5.778	3039824	203.5
2/23/01 3:24	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0057.D	1311-4064-S1	THPFOS	5.544	693953	249.3	PFOS	0	0	0.0
2/23/01 3:35	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0058.D	1311-4065-S1	THPFOS	5.537	703230	249.3	PFOS	0	0	0.0
2/23/01 3:46	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0059.D	1311-4066-S1	THPFOS	5.555	683158	249.3	PFOS	0	0	0.0
2/23/01 3:57	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0060.D	1311-4066MS-S1	THPFOS	5.554	601504	249.3	PFOS	5.785	2944564	205.5
2/23/01 4:53	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0065.D	1311-4067-S1	THPFOS	5.533	715149	249.3	PFOS	5.75	708991	39.3
2/23/01 5:04	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0066.D	1311-4068-S1	THPFOS	5.525	718563	249.3	PFOS	5.749	738565	40.8
2/23/01 5:16	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0067.D	1311-4069-S1	THPFOS	5.539	721833	249.3	PFOS	5.763	483585	26.5
2/23/01 5:27	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0068.D	1311-4069MS-S1	THPFOS	5.539	626695	249.3	PFOS	5.763	3383101	228.3
2/23/01 5:38	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0069.D	1311-4070-S1	THPFOS	5.541	723074	249.3	PFOS	5.758	353028	19.3
2/23/01 5:49	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0070.D	1311-4071-S1	THPFOS	5.541	713569	249.3	PFOS	5.759	401704	22.2
2/23/01 6:00	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0071.D	1311-4072-S1	THPFOS	5.54	710887	249.3	PFOS	5.757	385139	21.4
2/23/01 6:11	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0072.D	1311-4072MS-S1	THPFOS	5.54	626987	249.3	PFOS	5.757	3324237	223.9
2/23/01 6:23	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0073.D	1311-4073-S1	THPFOS	5.547	719422	249.3	PFOS	5.771	366061	20.1
2/23/01 6:34	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0074.D	1311-4074-S1	THPFOS	5.547	721925	249.3	PFOS	5.771	377219	20.6
2/23/01 7:30	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0079.D	1311-4075-S1	THPFOS	5.548	721016	249.3	PFOS	5.779	356402	19.5
2/23/01 7:41	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0080.D	1311-4075MS-S1	THPFOS	5.541	630748	249.3	PFOS	5.772	3329105	222.8
2/23/01 7:52	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0081.D	1311-4076-S1	THPFOS	5.554	721345	249.3	PFOS	5.778	400719	21.9
2/23/01 8:03	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0082.D	1311-4077-S1	THPFOS	5.545	713442	249.3	PFOS	5.769	384833	21.3
2/23/01 8:14	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0083.D	1311-4078-S1	THPFOS	5.551	714470	249.3	PFOS	5.775	391323	21.6
2/23/01 8:25	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0084.D	1311-4078MS-S1	THPFOS	5.539	627930	249.3	PFOS	5.756	3308122	222.3
2/23/01 8:37	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0085.D	1311-4079-S1	THPFOS	5.537	716587	249.3	PFOS	5.761	327587	18.1
2/23/01 8:48	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0086.D	1311-4080-S1	THPFOS	5.543	708783	249.3	PFOS	5.767	324602	18.1
2/23/01 8:59	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0087.D	1311-4081-S1	THPFOS	5.528	767134	249.3	PFOS	5.752	608553	31.4
2/23/01 9:10	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0088.D	1311-4081MS-S1	THPFOS	5.526	625739	249.3	PFOS	5.757	3277776	221.0
2/23/01 10:06	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0093.D	1311-4082-S1	THPFOS	5.527	711663	249.3	PFOS	5.751	359433	19.9
2/23/01 10:17	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0094.D	1311-4083-S1	THPFOS	5.526	705320	249.3	PFOS	5.743	317521	17.8
2/23/01 10:28	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0095.D	1311-4084-S1	THPFOS	5.513	711370	249.3	PFOS	5.73	322509	17.9
2/23/01 10:40	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0096.D	1311-4084MS-S1	THPFOS	5.509	617162	249.3	PFOS	5.733	3238116	221.4
2/23/01 10:51	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0097.D	1311-4085-S1	THPFOS	5.504	702007	249.3	PFOS	5.728	275759	15.5
2/23/01 11:02	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0098.D	1311-4086-S1	THPFOS	5.506	701896	249.3	PFOS	5.73	289371	16.3
2/23/01 11:13	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0099.D	1311-4087-S1	THPFOS	5.505	704199	249.3	PFOS	5.729	598587	33.7
2/23/01 11:24	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0100.D	1311-4087MS-S1	THPFOS	5.51	616234	249.3	PFOS	5.734	3378059	232.1
2/23/01 11:35	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0101.D	1311-4088-S1	THPFOS	5.516	683319	249.3	PFOS	5.74	296195	17.1
2/23/01 11:47	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0102.D	1311-4089-S1	THPFOS	5.502	678063	249.3	PFOS	5.719	292811	17.1
2/23/01 12:43	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0107.D	1311-4090-S1	THPFOS	5.511	676009	249.3	PFOS	5.735	288064	16.8
2/23/01 12:54	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0108.D	1311-4090MS-S1	THPFOS	5.521	594782	249.3	PFOS	5.746	3043722	215.5
2/23/01 13:05	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0109.D	1311-4091-S1	THPFOS	5.521	696138	249.3	PFOS	0	0	0.0
2/23/01 13:16	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0110.D	1311-4092-S1	THPFOS	5.503	702240	249.3	PFOS	0	0	0.0
2/23/01 13:27	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0111.D	1311-4093-S1	THPFOS	5.505	713216	249.3	PFOS	0	0	0.0
2/23/01 13:39	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0112.D	1311-4093MS-S1	THPFOS	5.525	617233	249.3	PFOS	5.742	2959566	201.0
2/23/01 13:50	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0113.D	1311-4094-S1	THPFOS	5.531	706887	249.3	PFOS	0	0	0.0
2/23/01 14:01	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0114.D	1311-4095-S1	THPFOS	5.547	708135	249.3	PFOS	0	0	0.0
2/23/01 14:12	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0115.D	1311-4096-S1	THPFOS	5.533	705249	249.3	PFOS	0	0	0.0
2/23/01 14:23	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0116.D	1311-4096MS-S1	THPFOS	5.54	619647	249.3	PFOS	5.764	2967005	200.7
2/23/01 15:19	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0121.D	1311-4097-S1	THPFOS	5.523	727274	249.3	PFOS	5.747	379845	20.6
2/23/01 15:30	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0122.D	1311-4098-S1	THPFOS	5.529	722539	249.3	PFOS	5.753	387610	21.2
2/23/01 15:42	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0123.D	1311-4099-S1	THPFOS	5.526	724280	249.3	PFOS	5.757	572801	31.3
2/23/01 15:53	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0124.D	1311-4099MS-S1	THPFOS	5.52	611327	249.3	PFOS	5.751	3364903	233.1
2/23/01 16:04	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0125.D	1311-4100-S1	THPFOS	5.515	714433	249.3	PFOS	5.739	266964	14.8
2/23/01 16:15	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0126.D	1311-4101-S1	THPFOS	5.515	712362	249.3	PFOS	5.74	280369	15.5
2/23/01 16:26	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0127.D	1311-4102-S1	THPFOS	5.518	699621	249.3	PFOS	5.735	248736	14.0
2/23/01 16:38	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0128.D	1311-4102MS-S1	THPFOS	5.51	606960	249.3	PFOS	5.734	3069584	212.8

2/22/01 20:42	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0021.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	5.802	13952	0.0
2/22/01 23:18	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0035.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	5.794	23163	0.0
2/22/01 23:29	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0036.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 1:54	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0049.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 2:06	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0050.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 4:31	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0063.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 4:42	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0064.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 7:07	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0077.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 7:18	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0078.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 9:44	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0091.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 9:55	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0092.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 12:20	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0105.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 12:32	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0106.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 14:57	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0119.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 15:08	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0120.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 17:11	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0131.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 17:22	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0132.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	0	0	0.0
2/23/01 19:59	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0146.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	5.733	25813	0.0
2/23/01 20:10	D:\chem\Rush.i\R010222.b	SAMPLE	RUSH0147.D	TN-A 4755 MeOH		THPFOS	0	0	0	PFOS	5.735	18305	0.0

Sample Batch *H010402.b*, *analyzed on Hillary* 04-02-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 5-1002 ng/mL
Batch method: *H010402b.m*

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount		Compound Nam	RT	Area	Amount	
4/3/01 3:14	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0077.D	0 ng/mL PFOS in MeOH		THPFOS	5.106	1211876	254		PFOS	0	0	0	
4/3/01 3:28	D:\Chem\Hillary\H010402.b	CALIB_1	HILL0078.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.105	1169631	254		PFOS	5.322	76308	3.396026	
4/3/01 3:43	D:\Chem\Hillary\H010402.b	CALIB_2	HILL0079.D	5 ng/mL PFOS in MeOH		THPFOS	5.108	1115864	254		PFOS	5.325	108804	5.067026	101%
4/3/01 3:57	D:\Chem\Hillary\H010402.b	CALIB_3	HILL0080.D	10 ng/mL PFOS in MeOH		THPFOS	5.097	1128520	254		PFOS	5.321	209068	9.618429	96%
4/3/01 4:11	D:\Chem\Hillary\H010402.b	CALIB_4	HILL0081.D	25 ng/mL PFOS in MeOH		THPFOS	5.105	1132730	254		PFOS	5.322	565907	26.00359	104%
4/3/01 4:26	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0082.D	40 ng/mL PFOS in MeOH		THPFOS	5.104	1144180	254		PFOS	5.329	929336	42.42639	106%
4/3/01 4:40	D:\Chem\Hillary\H010402.b	CALIB_5	HILL0083.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.112	1088719	254		PFOS	5.336	1114128	53.58744	107%
4/3/01 4:54	D:\Chem\Hillary\H010402.b	CALIB_6	HILL0084.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.105	1050910	254		PFOS	5.322	1636985	82.09443	109%
4/3/01 5:09	D:\Chem\Hillary\H010402.b	CALIB_7	HILL0085.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.107	1034615	254		PFOS	5.331	2152918	110.3641	110%
4/3/01 5:23	D:\Chem\Hillary\H010402.b	CALIB_8	HILL0086.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.105	969248	254		PFOS	5.329	4767587	269.8584	108%
4/3/01 5:38	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0087.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.105	988215	254		PFOS	5.329	7513403	430.2713	107%
4/3/01 5:52	D:\Chem\Hillary\H010402.b	CALIB_9	HILL0088.D	501 ng/mL PFOS in MeOH		THPFOS	5.106	1060823	254		PFOS	5.33	9712588	527.3099	105%
4/3/01 6:06	D:\Chem\Hillary\H010402.b	CALIB_10	HILL0089.D	1002 ng/mL PFOS in MeOH		THPFOS	5.107	928336	254		PFOS	5.331	15484980	1041.642	104%
4/3/01 23:24	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0161.D	0 ng/mL PFOS in MeOH		THPFOS	5.105	1337731	254		PFOS	0	0	0	
4/3/01 23:39	D:\Chem\Hillary\H010402.b	CALIB_11	HILL0162.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.1	1311179	254		PFOS	5.31	76978	3.057897	
4/3/01 23:53	D:\Chem\Hillary\H010402.b	CALIB_12	HILL0163.D	5 ng/mL PFOS in MeOH		THPFOS	5.097	1236112	254		PFOS	5.307	107847	4.535542	91%
4/4/01 0:07	D:\Chem\Hillary\H010402.b	CALIB_13	HILL0164.D	10 ng/mL PFOS in MeOH		THPFOS	5.101	1272114	254		PFOS	5.311	208869	8.524792	85%
4/4/01 0:22	D:\Chem\Hillary\H010402.b	CALIB_14	HILL0165.D	25 ng/mL PFOS in MeOH		THPFOS	5.097	1284745	254		PFOS	5.308	560714	22.70129	91%
4/4/01 0:36	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0166.D	40 ng/mL PFOS in MeOH		THPFOS	5.1	1303887	254		PFOS	5.31	928989	37.17265	93%
4/4/01 0:50	D:\Chem\Hillary\H010402.b	CALIB_15	HILL0167.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.096	1207553	254		PFOS	5.306	1099646	47.62208	95%
4/4/01 1:05	D:\Chem\Hillary\H010402.b	CALIB_16	HILL0168.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.099	1208046	254		PFOS	5.309	1590311	69.17822	92%
4/4/01 1:19	D:\Chem\Hillary\H010402.b	CALIB_17	HILL0169.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.101	1167221	254		PFOS	5.318	2147218	97.2829	97%
4/4/01 1:34	D:\Chem\Hillary\H010402.b	CALIB_18	HILL0170.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.09	1093910	254		PFOS	5.307	4811322	239.8238	96%
4/4/01 1:48	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0171.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.091	1097069	254		PFOS	5.309	7530799	385.2073	96%
4/4/01 2:02	D:\Chem\Hillary\H010402.b	CALIB_19	HILL0172.D	501 ng/mL PFOS in MeOH		THPFOS	5.091	1175367	254		PFOS	5.309	9910075	481.6606	96%
4/4/01 2:17	D:\Chem\Hillary\H010402.b	CALIB_20	HILL0173.D	501 ng/mL PFOS in MeOH		THPFOS	5.104	1023103	254		PFOS	5.321	15786129	951.0902	95%

Average: 1143911.69 1487085 +30%:
Std Dev: 110106.958 800738 -30%:
%RSD: 9.6%

3M Environmental Laboratory

CMC 4/4/01
Pg 1 of 3

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount		Compound Nam	RT	Area	Amount	
4/3/01 2:45	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0075.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 2:59	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0076.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 6:21	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0090.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	5.425	36059	0	
4/3/01 6:35	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0091.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 7:04	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0093.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 7:33	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0095.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 8:02	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0097.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 8:30	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0099.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 8:59	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0101.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 9:28	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0103.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 9:57	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0105.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 10:26	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0107.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 10:55	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0109.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 11:52	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0113.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 12:07	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0114.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 12:35	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0116.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 13:04	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0118.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 13:33	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0120.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 14:02	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0122.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 14:31	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0124.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 15:00	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0126.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 15:28	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0128.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 15:57	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0130.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 16:26	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0132.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 17:24	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0136.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 17:38	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0137.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 18:07	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0139.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 18:36	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0141.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 19:05	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0143.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 19:33	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0145.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 20:02	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0147.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 20:31	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0149.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 21:00	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0151.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 21:29	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0153.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 21:58	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0155.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 22:55	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0159.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/3/01 23:10	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0160.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/4/01 2:31	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0174.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0
4/4/01 2:45	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0175.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	0

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount		Compound Nam	RT	Area	Amount	
4/3/01 6:49	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0092.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.106	1643844	254	ISTD>130%	PFOS	5.33	209598	6.621818	
4/3/01 7:18	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0094.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.112	1594154	254	ISTD>130%	PFOS	5.329	3430184	114.2188	
4/3/01 7:47	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0096.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.106	1605329	254	ISTD>130%	PFOS	5.323	73592	2.392023	
4/3/01 8:16	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0098.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.097	1598522	254	ISTD>130%	PFOS	5.314	58689	1.919775	
4/3/01 8:45	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0100.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.103	1558836	254	ISTD>130%	PFOS	5.321	63584	2.130585	
4/3/01 9:14	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0102.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.105	1574536	254	ISTD>130%	PFOS	5.322	3247504	109.3654	
4/3/01 9:42	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0104.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.105	1563077	254	ISTD>130%	PFOS	5.329	72816	2.430454	
4/3/01 10:11	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0106.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1582850	254	ISTD>130%	PFOS	5.322	99365	3.268414	
4/3/01 10:40	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0108.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1574580	254	ISTD>130%	PFOS	5.323	173732	5.731799	
4/3/01 11:09	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0110.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.099	1545068	254	ISTD>130%	PFOS	5.323	3282444	112.7346	
4/3/01 11:23	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0111.D	5 ng/mL PFOS in MeOH		THPFOS	5.105	1418003	254		PFOS	5.322	111688	4.096216	82%
4/3/01 11:38	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0112.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.105	1327511	254		PFOS	5.322	4689629	190.655	76%
4/3/01 12:21	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0115.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.087	1772997	254	ISTD>130%	PFOS	5.319	178548	5.232697	
4/3/01 12:50	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0117.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.091	1580363	254	ISTD>130%	PFOS	5.309	143612	4.72336	
4/3/01 13:19	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0119.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.09	1599960	254	ISTD>130%	PFOS	5.314	73070	2.383101	
4/3/01 13:48	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0121.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1583275	254	ISTD>130%	PFOS	5.322	3194485	106.9281	
4/3/01 14:17	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0123.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.093	1507671	254	ISTD>130%	PFOS	5.31	74289	2.569598	
4/3/01 14:45	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0125.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.1	1613223	254	ISTD>130%	PFOS	5.317	73272	2.370152	
4/3/01 15:14	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0127.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.099	1542538	254	ISTD>130%	PFOS	5.316	125073	4.216276	
4/3/01 15:43	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0129.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1558630	254	ISTD>130%	PFOS	5.316	3322158	113.1153	
4/3/01 16:12	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0131.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.097	1638237	254	ISTD>130%	PFOS	5.314	132485	4.20529	
4/3/01 16:40	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0133.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.104	1636599	254	ISTD>130%	PFOS	5.314	188089	5.969764	
4/3/01 16:55	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0134.D	5 ng/mL PFOS in MeOH		THPFOS	5.103	1485841	254		PFOS	5.313	102882	3.603134	72%
4/3/01 17:09	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0135.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.112	1395726	254		PFOS	5.322	4803174	185.5252	74%
4/3/01 17:52	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0138.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.093	1654266	254	ISTD>130%	PFOS	5.31	189555	5.95208	
4/3/01 18:21	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0140.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.099	1604691	254	ISTD>130%	PFOS	5.316	3364843	111.2337	
4/3/01 18:50	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0142.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.1	1567626	254	ISTD>130%	PFOS	5.317	70689	2.353252	
4/3/01 19:19	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0144.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1657152	254	ISTD>130%	PFOS	5.315	150169	4.710199	
4/3/01 19:48	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0146.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1628130	254	ISTD>130%	PFOS	5.308	256726	8.187031	
4/3/01 20:17	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0148.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.105	1586581	254	ISTD>130%	PFOS	5.315	3420939	114.4608	
4/3/01 20:46	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0150.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.106	1594869	254	ISTD>130%	PFOS	5.316	197132	6.41957	
4/3/01 21:14	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0152.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.105	1613975	254	ISTD>130%	PFOS	5.315	178892	5.757917	
4/3/01 21:43	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0154.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.104	1647163	254	ISTD>130%	PFOS	5.314	88721	2.807077	
4/3/01 22:12	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0156.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1616736	254	ISTD>130%	PFOS	5.308	3291692	107.9254	
4/3/01 22:27	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0157.D	5 ng/mL PFOS in MeOH		THPFOS	5.097	1495313	254	ISTD>130%	PFOS	5.308	111995	3.895974	78%
4/3/01 22:41	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0158.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.099	1408690	254		PFOS	5.309	4791463	183.2822	73%

Sample Batch R010404.b, analyzed on Hillary 04-04-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 10-1002 ng/mL
Batch method: R010404.m (External Standard Quant)

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount	Compound Na	RT	Area	Amount	
4/4/01 17:33	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0017.D	0 ng/mL PFOS in MeOH	THPFOS		5.582	583312	254	PFOS	0	0	0	
4/4/01 17:48	D:\Chem\Rush\R010404.b	CALIB_1	RUSH0018.D	2.5 ng/mL PFOS in MeOH	THPFOS		5.579	598272	254	PFOS	5.789	170517	0	
4/4/01 18:02	D:\Chem\Rush\R010404.b	CALIB_2	RUSH0019.D	5 ng/mL PFOS in MeOH	THPFOS		5.591	619609	254	PFOS	5.801	218580	0.060813	1%
4/4/01 18:16	D:\Chem\Rush\R010404.b	CALIB_3	RUSH0020.D	10 ng/mL PFOS in MeOH	THPFOS		5.595	603517	254	PFOS	5.805	300075	5.901514	59%
4/4/01 18:31	D:\Chem\Rush\R010404.b	CALIB_4	RUSH0021.D	25 ng/mL PFOS in MeOH	THPFOS		5.589	600229	254	PFOS	5.792	567394	25.29359	101%
4/4/01 18:45	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0022.D	40 ng/mL PFOS in MeOH	THPFOS		5.587	607817	254	PFOS	5.79	825934	44.38921	111%
4/4/01 18:59	D:\Chem\Rush\R010404.b	CALIB_5	RUSH0023.D	50.1 ng/mL PFOS in MeOH	THPFOS		5.58	612230	254	PFOS	5.79	998865	57.34862	114%
4/4/01 19:14	D:\Chem\Rush\R010404.b	CALIB_6	RUSH0024.D	75.1 ng/mL PFOS in MeOH	THPFOS		5.588	620258	254	PFOS	5.799	1408399	88.63623	118%
4/4/01 19:28	D:\Chem\Rush\R010404.b	CALIB_7	RUSH0025.D	100.2 ng/mL PFOS in MeOH	THPFOS		5.596	614982	254	PFOS	5.799	1740059	114.5899	114%
4/4/01 19:43	D:\Chem\Rush\R010404.b	CALIB_8	RUSH0026.D	250.5 ng/mL PFOS in MeOH	THPFOS		5.589	641474	254	PFOS	5.792	3758226	284.3931	114%
4/4/01 19:57	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0027.D	400.8 ng/mL PFOS in MeOH	THPFOS		5.585	615846	254	PFOS	5.788	5347186	432.4344	108%
4/4/01 20:11	D:\Chem\Rush\R010404.b	CALIB_9	RUSH0028.D	501 ng/mL PFOS in MeOH	THPFOS		5.588	625062	254	PFOS	5.798	6357305	533.1193	106%
4/4/01 20:26	D:\Chem\Rush\R010404.b	CALIB_10	RUSH0029.D	1002 ng/mL PFOS in MeOH	THPFOS		5.581	640512	254	PFOS	5.784	11034302	1065.901	106%
4/5/01 14:08	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0098.D	0 ng/mL PFOS in MeOH	THPFOS		5.574	567197	254	PFOS	0	0	0	
4/5/01 14:22	D:\Chem\Rush\R010404.b	CALIB_11	RUSH0099.D	2.5 ng/mL PFOS in MeOH	THPFOS		5.579	573134	254	PFOS	5.782	147436	0	
4/5/01 14:36	D:\Chem\Rush\R010404.b	CALIB_12	RUSH0100.D	5 ng/mL PFOS in MeOH	THPFOS		5.581	587603	254	PFOS	5.784	189460	0	0%
4/5/01 14:51	D:\Chem\Rush\R010404.b	CALIB_13	RUSH0101.D	10 ng/mL PFOS in MeOH	THPFOS		5.567	566302	254	PFOS	5.777	258280	2.90194	29%
4/5/01 15:05	D:\Chem\Rush\R010404.b	CALIB_14	RUSH0102.D	25 ng/mL PFOS in MeOH	THPFOS		5.573	567276	254	PFOS	5.783	519265	21.77576	87%
4/5/01 15:19	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0103.D	40 ng/mL PFOS in MeOH	THPFOS		5.585	550302	254	PFOS	5.788	736331	37.73328	94%
4/5/01 15:34	D:\Chem\Rush\R010404.b	CALIB_15	RUSH0104.D	50.1 ng/mL PFOS in MeOH	THPFOS		5.578	571777	254	PFOS	5.781	897827	49.75867	99%
4/5/01 15:48	D:\Chem\Rush\R010404.b	CALIB_16	RUSH0105.D	75.1 ng/mL PFOS in MeOH	THPFOS		5.577	568082	254	PFOS	5.787	1258308	77.07207	103%
4/5/01 16:03	D:\Chem\Rush\R010404.b	CALIB_17	RUSH0106.D	100.2 ng/mL PFOS in MeOH	THPFOS		5.565	565114	254	PFOS	5.768	1578440	101.8738	102%
4/5/01 16:17	D:\Chem\Rush\R010404.b	CALIB_18	RUSH0107.D	250.5 ng/mL PFOS in MeOH	THPFOS		5.568	573872	254	PFOS	5.771	3350422	248.4373	99%
4/5/01 16:31	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0108.D	400.8 ng/mL PFOS in MeOH	THPFOS		5.569	560676	254	PFOS	5.772	4782617	378.3862	94%
4/5/01 16:46	D:\Chem\Rush\R010404.b	CALIB_19	RUSH0109.D	501 ng/mL PFOS in MeOH	THPFOS		5.564	557017	254	PFOS	5.767	5638078	460.9056	92%
4/5/01 17:00	D:\Chem\Rush\R010404.b	CALIB_20	RUSH0110.D	1002 ng/mL PFOS in MeOH	THPFOS		5.561	575273	254	PFOS	5.764	9804784	915.2275	91%

Average: 591028.6538
Std Dev: 26847.71188
%RSD: 4.5%

768337 +30%:
413720 -30%:

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount	Compound Na	RT	Area	Amount	
4/4/01 17:05	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0015.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/4/01 17:19	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0016.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/4/01 20:40	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0030.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/4/01 20:54	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0031.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 0:01	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0044.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 0:15	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0045.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 3:22	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0058.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 3:37	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0059.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 6:54	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0072.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 7:08	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0073.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 10:15	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0086.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 10:30	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0087.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 12:25	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0095.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 13:39	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0096.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 13:53	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0097.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 17:14	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0111.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	
4/5/01 17:29	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0112.D	TN-A 4802 MeOH	THPFOS		0	0	0	PFOS	0	0	0	

CMC 4/9/01
Pg 1 of 2

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount		Compound Na	RT	Area	Amount	
4/4/01 21:09	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0032.D	Study Number E00-1311		THPFOS	5.589	867461	254 ISTD>130%		PFOS	0	0	0	
4/4/01 21:23	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0033.D	Study Number E00-1311		THPFOS	5.589	843971	254 ISTD>130%		PFOS	0	0	0	
4/4/01 21:37	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0034.D	Study Number E00-1311		THPFOS	5.574	856577	254 ISTD>130%		PFOS	0	0	0	
4/4/01 21:52	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0035.D	Study Number E00-1311		THPFOS	5.596	1033666	254 ISTD>130%		PFOS	0	0	0	
4/4/01 22:06	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0036.D	Study Number E00-1311		THPFOS	5.58	784276	254 ISTD>130%		PFOS	0	0	0	
4/4/01 22:20	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0037.D	Study Number E00-1311		THPFOS	5.574	797188	254 ISTD>130%		PFOS	0	0	0	
4/4/01 22:35	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0038.D	Study Number E00-1311		THPFOS	5.581	753794	254		PFOS	0	0	0	
4/4/01 22:49	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0039.D	Study Number E00-1311		THPFOS	5.578	795069	254 ISTD>130%		PFOS	0	0	0	
4/5/01 23:03	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0040.D	Study Number E00-1311		THPFOS	5.579	817236	254 ISTD>130%		PFOS	0	0	0	
4/5/01 23:18	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0041.D	Study Number E00-1311		THPFOS	5.575	868427	254 ISTD>130%		PFOS	0	0	0	
4/5/01 23:32	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0042.D	5 ng/mL PFOS in MeOH		THPFOS	5.575	566116	254		PFOS	0	0	0	0.0%
4/5/01 23:47	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0043.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.582	559850	254		PFOS	5.785	3653083	275.043	109.8%
4/5/01 0:30	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0046.D	Study Number E00-1311		THPFOS	5.57	862542	254 ISTD>130%		PFOS	0	0	0	
4/5/01 0:44	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0047.D	Study Number E00-1311		THPFOS	5.58	787133	254 ISTD>130%		PFOS	0	0	0	
4/5/01 0:58	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0048.D	Study Number E00-1311		THPFOS	5.608	934664	254 ISTD>130%		PFOS	0	0	0	
4/5/01 1:13	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0049.D	Study Number E00-1311		THPFOS	5.586	863820	254 ISTD>130%		PFOS	0	0	0	
4/5/01 1:27	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0050.D	Study Number E00-1311		THPFOS	5.565	1126734	254 ISTD>130%		PFOS	0	0	0	
4/5/01 1:42	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0051.D	Study Number E00-1311		THPFOS	5.587	942383	254 ISTD>130%		PFOS	0	0	0	
4/5/01 1:56	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0052.D	Study Number E00-1311		THPFOS	5.578	906043	254 ISTD>130%		PFOS	0	0	0	
4/5/01 2:10	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0053.D	Study Number E00-1311		THPFOS	5.576	976478	254 ISTD>130%		PFOS	0	0	0	
4/5/01 2:25	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0054.D	Study Number E00-1311		THPFOS	5.588	1316674	254 ISTD>130%		PFOS	0	0	0	
4/5/01 2:39	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0055.D	Study Number E00-1311		THPFOS	5.594	899797	254 ISTD>130%		PFOS	0	0	0	
4/5/01 2:53	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0056.D	5 ng/mL PFOS in MeOH		THPFOS	5.589	619700	254		PFOS	0	0	0	0.0%
4/5/01 3:08	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0057.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.589	583040	254		PFOS	5.792	3610058	271.2329	108.3%
4/5/01 3:51	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0060.D	Study Number E00-1311		THPFOS	5.579	904765	254 ISTD>130%		PFOS	0	0	0	
4/5/01 4:06	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0061.D	Study Number E00-1311		THPFOS	5.581	896633	254 ISTD>130%		PFOS	0	0	0	
4/5/01 4:20	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0062.D	Study Number E00-1311		THPFOS	5.564	902426	254 ISTD>130%		PFOS	0	0	0	
4/5/01 4:34	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0063.D	Study Number E00-1311		THPFOS	5.565	896486	254 ISTD>130%		PFOS	0	0	0	
4/5/01 4:49	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0064.D	Study Number E00-1311		THPFOS	5.565	913892	254 ISTD>130%		PFOS	0	0	0	
4/5/01 5:03	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0065.D	Study Number E00-1311		THPFOS	5.567	958949	254 ISTD>130%		PFOS	0	0	0	
4/5/01 5:17	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0066.D	Study Number E00-1311		THPFOS	5.575	747595	254		PFOS	5.778	2604047	184.7868	
4/5/01 5:42	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0067.D	Study Number E00-1311		THPFOS	5.635	953521	254 ISTD>130%		PFOS	5.845	267284	3.547403	
4/5/01 5:56	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0068.D	Study Number E00-1311		THPFOS	5.596	921327	254 ISTD>130%		PFOS	0	0	0	
4/5/01 6:11	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0069.D	Study Number E00-1311		THPFOS	5.614	956257	254 ISTD>130%		PFOS	0	0	0	
4/5/01 6:25	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0070.D	5 ng/mL PFOS in MeOH		THPFOS	5.616	621485	254		PFOS	0	0	0	0.0%
4/5/01 6:39	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0071.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.598	591317	254		PFOS	5.801	3590033	269.4627	107.6%
4/5/01 7:23	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0074.D	Study Number E00-1311		THPFOS	5.581	672912	254		PFOS	5.792	3440014	256.2652	
4/5/01 7:37	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0075.D	Study Number E00-1311		THPFOS	5.581	921483	254 ISTD>130%		PFOS	0	0	0	
4/5/01 7:51	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0076.D	Study Number E00-1311		THPFOS	5.596	914616	254 ISTD>130%		PFOS	0	0	0	
4/5/01 8:06	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0077.D	Study Number E00-1311		THPFOS	5.59	929161	254 ISTD>130%		PFOS	0	0	0	
4/5/01 8:20	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0078.D	Study Number E00-1311		THPFOS	5.582	924096	254 ISTD>130%		PFOS	0	0	0	
4/5/01 8:34	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0079.D	Study Number E00-1311		THPFOS	5.594	903461	254 ISTD>130%		PFOS	0	0	0	
4/5/01 8:49	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0080.D	Study Number E00-1311		THPFOS	5.603	884953	254 ISTD>130%		PFOS	0	0	0	
4/5/01 9:03	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0081.D	Study Number E00-1311		THPFOS	5.597	998451	254 ISTD>130%		PFOS	0	0	0	
4/5/01 9:18	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0082.D	Study Number E00-1311		THPFOS	5.585	941330	254 ISTD>130%		PFOS	0	0	0	
4/5/01 9:32	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0083.D	Study Number E00-1311		THPFOS	5.582	1193912	254 ISTD>130%		PFOS	0	0	0	
4/5/01 9:46	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0084.D	5 ng/mL PFOS in MeOH		THPFOS	5.589	681210	254		PFOS	0	0	0	0.0%
4/5/01 10:01	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0085.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.584	626988	254		PFOS	5.794	3481787	259.9287	103.8%
4/5/01 10:44	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0088.D	Study Number E00-1311		THPFOS	5.574	789982	254 ISTD>130%		PFOS	5.777	2772166	198.8805	
4/5/01 10:58	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0089.D	Study Number E00-1311		THPFOS	5.575	1022922	254 ISTD>130%		PFOS	0	0	0	
4/5/01 11:13	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0090.D	Study Number E00-1311		THPFOS	5.574	970087	254 ISTD>130%		PFOS	0	0	0	
4/5/01 11:27	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0091.D	Study Number E00-1311		THPFOS	5.581	999735	254 ISTD>130%		PFOS	0	0	0	
4/5/01 11:42	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0092.D	Study Number E00-1311		THPFOS	5.582	808526	254 ISTD>130%		PFOS	5.785	2250127	155.5797	
4/5/01 11:56	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0093.D	5 ng/mL PFOS in MeOH		THPFOS	5.586	685035	254		PFOS	0	0	0	0.0%
4/5/01 12:10	D:\Chem\Rush\R010404.b	SAMPLE	RUSH0094.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.571	644837	254		PFOS	5.775	3467170	258.6458	103.3%

Sample Batch H010329.b, analyzed on Hillary 03-29-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Slg/Sed.
Standard curve range used for calibration of samples: 5-1002 ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: H010329.m

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	CompounRT	Area	Amount	CompounRT	Area	Amount		
3/29/01 17:54	D:\Chem\Hill	SAMPLE	HILL0016.D	O ng/mL PFOS in	THPFOS	5.098	960831	254	PFOS	0	0	0	
3/29/01 18:09	D:\Chem\Hill	CALIB_1	HILL0017.D	2.5 ng/mL PFOS i	THPFOS	5.098	970141	254	PFOS	5.323	68338	0.677157	
3/29/01 18:23	D:\Chem\Hill	CALIB_1	HILL0018.D	5 ng/mL PFOS in	THPFOS	5.098	1088770	254	PFOS	5.315	154846	3.650955	73.0%
3/29/01 18:38	D:\Chem\Hill	CALIB_2	HILL0019.D	1O ng/mL PFOS i	THPFOS	5.088	954633	254	PFOS	5.312	209554	6.883663	68.8%
3/29/01 18:52	D:\Chem\Hill	CALIB_3	HILL0020.D	25 ng/mL PFOS in	THPFOS	5.093	962518	254	PFOS	5.324	550443	22.60741	90.4%
3/29/01 19:06	D:\Chem\Hill	SAMPLE	HILL0021.D	4O ng/mL PFOS in	THPFOS	5.092	969520	254	PFOS	5.316	874302	37.47291	93.7%
3/29/01 19:21	D:\Chem\Hill	CALIB_4	HILL0022.D	5O.1 ng/mL PFOS	THPFOS	5.098	976505	254	PFOS	5.315	1094742	47.43103	94.7%
3/29/01 19:35	D:\Chem\Hill	CALIB_5	HILL0023.D	75.1 ng/mL PFOS	THPFOS	5.093	967966	254	PFOS	5.317	1620491	72.81732	97.0%
3/29/01 19:49	D:\Chem\Hill	CALIB_6	HILL0024.D	100.2 ng/mL PFO	THPFOS	5.094	957847	254	PFOS	5.318	2093623	96.65124	96.5%
3/29/01 20:04	D:\Chem\Hill	CALIB_7	HILL0025.D	25O.5 ng/mL PFO	THPFOS	0	0	0	PFOS	0	0	0	0.0% Sample level in Vial too low
3/29/01 20:18	D:\Chem\Hill	CALIB_8	HILL0026.D	400.8 ng/mL PFO	THPFOS	5.091	969149	254	PFOS	5.316	7386300	370.5128	92.4%
3/29/01 20:33	D:\Chem\Hill	CALIB_9	HILL0027.D	501 ng/mL PFOS	THPFOS	5.092	973244	254	PFOS	5.316	8910984	454.6583	90.8%
3/29/01 20:47	D:\Chem\Hill	CALIB_10	HILL0028.D	1002 ng/mL PFOS	THPFOS	5.093	1000466	254	PFOS	5.31	17048775	934.463	93.3%
3/31/01 16:58	D:\Chem\Hill	SAMPLE	HILL0212.D	O ng/mL PFOS in	THPFOS	5.07	842487	254	PFOS	0	0	0	
3/31/01 17:13	D:\Chem\Hill	CALIB_11	HILL0213.D	2.5 ng/mL PFOS i	THPFOS	5.077	835488	254	PFOS	5.308	60341	0.858561	
3/31/01 17:27	D:\Chem\Hill	CALIB_11	HILL0214.D	5 ng/mL PFOS in	THPFOS	5.078	850162	254	PFOS	5.302	109759	2.805341	56.1%
3/31/01 17:41	D:\Chem\Hill	CALIB_12	HILL0215.D	1O ng/mL PFOS i	THPFOS	5.07	814436	254	PFOS	5.301	179020	7.088001	70.9%
3/31/01 17:56	D:\Chem\Hill	CALIB_13	HILL0216.D	25 ng/mL PFOS in	THPFOS	5.071	813666	254	PFOS	5.295	495753	24.4548	97.8%
3/31/01 18:10	D:\Chem\Hill	SAMPLE	HILL0217.D	4O ng/mL PFOS in	THPFOS	5.07	800797	254	PFOS	5.294	779905	40.89347	102.2%
3/31/01 18:25	D:\Chem\Hill	CALIB_14	HILL0218.D	5O.1 ng/mL PFOS	THPFOS	5.076	805652	254	PFOS	5.294	981753	52.01963	103.8%
3/31/01 18:39	D:\Chem\Hill	CALIB_15	HILL0219.D	75.1 ng/mL PFOS	THPFOS	5.07	799837	254	PFOS	5.294	1483559	81.31145	108.3%
3/31/01 18:53	D:\Chem\Hill	CALIB_16	HILL0220.D	100.2 ng/mL PFO	THPFOS	5.071	789834	254	PFOS	5.295	1929027	108.8196	108.6%
3/31/01 19:08	D:\Chem\Hill	CALIB_17	HILL0221.D	250.5 ng/mL PFO	THPFOS	5.073	812044	254	PFOS	5.29	4679248	272.5867	68.0%
3/31/01 19:22	D:\Chem\Hill	CALIB_18	HILL0222.D	400.8 ng/mL PFO	THPFOS	5.079	775631	254	PFOS	5.303	6867611	437.8109	109.2%
3/31/01 19:36	D:\Chem\Hill	CALIB_19	HILL0223.D	501 ng/mL PFOS	THPFOS	5.07	783605	254	PFOS	5.288	8368086	541.0708	108.0%
3/31/01 19:51	D:\Chem\Hill	CALIB_20	HILL0224.D	1002 ng/mL PFOS	THPFOS	5.077	814065	254	PFOS	5.294	15279147	1050.288	104.8%

Average:	857280.5	1114465	+30%:
Std Dev:	196200.6	600096	-30%:
%RSD:	22.9%		

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Inj Date	Batch	SampType	File	Sample Name	Misc Inf	CompoundRT	Area	Amount		CompounRT	Area	Amount
3/29/01 17:26	D:\Chem\Hilla	SAMPLE	HILL0014.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.392	13019	0
3/29/01 17:40	D:\Chem\Hilla	SAMPLE	HILL0015.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/29/01 21:01	D:\Chem\Hilla	SAMPLE	HILL0029.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.386	23896	0
3/29/01 21:16	D:\Chem\Hilla	SAMPLE	HILL0030.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/29/01 21:30	D:\Chem\Hilla	SAMPLE	HILL0031.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 0:23	D:\Chem\Hilla	SAMPLE	HILL0043.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 0:37	D:\Chem\Hilla	SAMPLE	HILL0044.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 3:44	D:\Chem\Hilla	SAMPLE	HILL0057.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 3:59	D:\Chem\Hilla	SAMPLE	HILL0058.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 7:06	D:\Chem\Hilla	SAMPLE	HILL0071.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 7:20	D:\Chem\Hilla	SAMPLE	HILL0072.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 10:28	D:\Chem\Hilla	SAMPLE	HILL0085.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 10:43	D:\Chem\Hilla	SAMPLE	HILL0086.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 13:50	D:\Chem\Hilla	SAMPLE	HILL0099.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 14:05	D:\Chem\Hilla	SAMPLE	HILL0100.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 17:12	D:\Chem\Hilla	SAMPLE	HILL0113.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 17:27	D:\Chem\Hilla	SAMPLE	HILL0114.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 20:34	D:\Chem\Hilla	SAMPLE	HILL0127.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/30/01 20:48	D:\Chem\Hilla	SAMPLE	HILL0128.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 23:27	D:\Chem\Hilla	SAMPLE	HILL0139.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 23:41	D:\Chem\Hilla	SAMPLE	HILL0140.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 2:48	D:\Chem\Hilla	SAMPLE	HILL0153.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 3:03	D:\Chem\Hilla	SAMPLE	HILL0154.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 6:24	D:\Chem\Hilla	SAMPLE	HILL0168.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 6:39	D:\Chem\Hilla	SAMPLE	HILL0169.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 9:46	D:\Chem\Hilla	SAMPLE	HILL0182.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 10:00	D:\Chem\Hilla	SAMPLE	HILL0183.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 13:08	D:\Chem\Hilla	SAMPLE	HILL0196.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 13:22	D:\Chem\Hilla	SAMPLE	HILL0197.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 16:30	D:\Chem\Hilla	SAMPLE	HILL0210.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 16:44	D:\Chem\Hilla	SAMPLE	HILL0211.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 20:05	D:\Chem\Hilla	SAMPLE	HILL0225.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/31/01 20:20	D:\Chem\Hilla	SAMPLE	HILL0226.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0

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Inj Date	Batch	SampType	File	Sample Name	Misc Inf	CompoundRT		Area	Amount		CompounRT		Area	Amount	
3/29/01 21:45	D:\Chem\HillaSAMPLE		HILL0032.D	10mg/mL PFOS Study Num	THPFOS	5.092	941565	254		PFOS	5.317	7685289	399.8253	
3/29/01 21:59	D:\Chem\HillaSAMPLE		HILL0033.D	10mg/mL PFOS Study Num	THPFOS	5.092	955051	254		PFOS	5.316	8722101	453.3549	
3/29/01 22:13	D:\Chem\HillaSAMPLE		HILL0034.D	10mg/mL PFOS Study Num	THPFOS	5.091	947677	254		PFOS	5.315	7434958	382.6097	
3/29/01 22:28	D:\Chem\HillaSAMPLE		HILL0035.D	10mg/mL PFOS Study Num	THPFOS	5.093	777892	254		PFOS	5.31	9661038	643.6158	
3/29/01 22:42	D:\Chem\HillaSAMPLE		HILL0036.D	50mg/mL PFOS Study Num	THPFOS	5.085	1089404	254		PFOS	5.302	5246893	224.4704	
3/29/01 22:56	D:\Chem\HillaSAMPLE		HILL0037.D	50mg/mL PFOS Study Num	THPFOS	5.083	1090640	254		PFOS	5.308	5197203	221.9073	
3/30/01 23:11	D:\Chem\HillaSAMPLE		HILL0038.D	50mg/mL PFOS Study Num	THPFOS	5.084	1030788	254		PFOS	5.308	4771646	215.0835	
3/30/01 23:25	D:\Chem\HillaSAMPLE		HILL0039.D	50mg/mL PFOS Study Num	THPFOS	5.077	1073111	254		PFOS	5.301	9471261	436.3103	
3/30/01 23:40	D:\Chem\HillaSAMPLE		HILL0040.D	0mg/mL PFOS Study Numb	THPFOS	5.085	918338	254		PFOS	5.309	540709	23.3661	
3/30/01 23:54	D:\Chem\HillaSAMPLE		HILL0041.D	5 ng/mL PFOS in MeOH	THPFOS	5.085	1091788	254		PFOS	5.302	162150	3.734831	74.7%	
3/30/01 0:08	D:\Chem\HillaSAMPLE		HILL0042.D	25O.5 ng/mL PFOS in MeO	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	0	0	0	0.0%	**Sample level in Vial too low**
3/30/01 0:52	D:\Chem\HillaSAMPLE		HILL0045.D	0mg/mL PFOS Study Numb	THPFOS	5.091	893965	254	-	PFOS	5.315	126502	3.424213		
3/30/01 1:06	D:\Chem\HillaSAMPLE		HILL0046.D	0mg/mL PFOS Study Numb	THPFOS	5.086	871748	254	-	PFOS	5.31	88651	1.66155		
3/30/01 1:20	D:\Chem\HillaSAMPLE		HILL0047.D	0mg/mL PFOS Study Numb	THPFOS	5.092	746435	254	-	PFOS	5.316	3303886	204.9582		
3/30/01 1:35	D:\Chem\HillaSAMPLE		HILL0048.D	0.5mg/mL PFOS Study Num	THPFOS	5.092	887622	254	-	PFOS	5.316	620867	28.34021		
3/30/01 1:49	D:\Chem\HillaSAMPLE		HILL0049.D	0.5mg/mL PFOS Study Num	THPFOS	5.085	872024	254		PFOS	5.309	520023	23.70488		
3/30/01 2:04	D:\Chem\HillaSAMPLE		HILL0050.D	0.5mg/mL PFOS Study Num	THPFOS	5.083	867832	254		PFOS	5.307	582795	27.08401		
3/30/01 2:18	D:\Chem\HillaSAMPLE		HILL0051.D	0.5mg/mL PFOS Study Num	THPFOS	5.091	727915	254		PFOS	5.308	3691790	237.353		
3/30/01 2:32	D:\Chem\HillaSAMPLE		HILL0052.D	2mg/mL PFOS Study Numb	THPFOS	5.083	854851	254	-	PFOS	5.307	2353605	123.4773		
3/30/01 2:47	D:\Chem\HillaSAMPLE		HILL0053.D	2mg/mL PFOS Study Numb	THPFOS	5.083	857430	254		PFOS	5.307	2593339	136.4485		
3/30/01 3:01	D:\Chem\HillaSAMPLE		HILL0054.D	2mg/mL PFOS Study Numb	THPFOS	5.09	854499	254		PFOS	5.314	2562398	135.2093		
3/30/01 3:16	D:\Chem\HillaSAMPLE		HILL0055.D	5 ng/mL PFOS in MeOH	THPFOS	0	0	0	ISTD<70%	PFOS	0	0	0	0.0%	**Sample level in Vial too low**
3/30/01 3:30	D:\Chem\HillaSAMPLE		HILL0056.D	25O.5 ng/mL PFOS in MeO	THPFOS	0	0	0	ISTD<70%	PFOS	0	0	0	0.0%	**Sample level in Vial too low**
3/30/01 4:13	D:\Chem\HillaSAMPLE		HILL0059.D	2mg/mL PFOS Study Numb	THPFOS	5.084	749219	254		PFOS	5.308	5345747	344.4726		
3/30/01 4:28	D:\Chem\HillaSAMPLE		HILL0060.D	5mg/mL PFOS Study Numb	THPFOS	5.084	876417	254		PFOS	5.308	1620046	80.90241		
3/30/01 4:42	D:\Chem\HillaSAMPLE		HILL0061.D	5mg/mL PFOS Study Numb	THPFOS	5.077	906862	254		PFOS	5.301	1503995	72.09314		
3/30/01 4:56	D:\Chem\HillaSAMPLE		HILL0062.D	5mg/mL PFOS Study Numb	THPFOS	5.085	901113	254		PFOS	5.309	1497426	72.24531		
3/30/01 5:11	D:\Chem\HillaSAMPLE		HILL0063.D	5mg/mL PFOS Study Numb	THPFOS	5.084	766376	254		PFOS	5.301	4532655	260.4432		
3/30/01 5:25	D:\Chem\HillaSAMPLE		HILL0064.D	10mg/mL PFOS Study Num	THPFOS	5.086	913312	254		PFOS	5.303	3057247	152.0074		
3/30/01 5:40	D:\Chem\HillaSAMPLE		HILL0065.D	10mg/mL PFOS Study Num	THPFOS	5.086	973798	254		PFOS	5.31	3260951	152.0686		
3/30/01 5:54	D:\Chem\HillaSAMPLE		HILL0066.D	10mg/mL PFOS Study Num	THPFOS	5.079	911827	254	-	PFOS	5.303	3051917	151.9884		
3/30/01 6:08	D:\Chem\HillaSAMPLE		HILL0067.D	10mg/mL PFOS Study Num	THPFOS	5.083	781459	254	-	PFOS	5.307	5989063	372.804		
3/30/01 6:23	D:\Chem\HillaSAMPLE		HILL0068.D	50mg/mL PFOS Study Num	THPFOS	5.088	979507	254	-	PFOS	5.312	2234423	101.1328		
3/30/01 6:37	D:\Chem\HillaSAMPLE		HILL0069.D	5 ng/mL PFOS in MeOH	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	0	0	0	0.0%	**Sample level in Vial too low**
3/30/01 6:51	D:\Chem\HillaSAMPLE		HILL0070.D	25O.5 ng/mL PFOS in MeO	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	0	0	0	0.0%	**Sample level in Vial too low**
3/30/01 7:35	D:\Chem\HillaSAMPLE		HILL0073.D	50mg/mL PFOS Study Num	THPFOS	5.079	967155	254	-	PFOS	5.296	1999273	91.09713		
3/30/01 7:49	D:\Chem\HillaSAMPLE		HILL0074.D	50mg/mL PFOS Study Num	THPFOS	5.084	990636	254	-	PFOS	5.301	1896764	83.9824		
3/30/01 8:03	D:\Chem\HillaSAMPLE		HILL0075.D	50mg/mL PFOS Study Num	THPFOS	5.077	924192	254	-	PFOS	5.294	5706884	293.9526		
3/30/01 8:18	D:\Chem\HillaSAMPLE		HILL0076.D	0mg/mL PFOS Study Numb	THPFOS	5.076	868541	254	-	PFOS	5.307	199968	7.359762		
3/30/01 8:32	D:\Chem\HillaSAMPLE		HILL0077.D	0mg/mL PFOS Study Numb	THPFOS	5.084	862422	254	-	PFOS	0	0	0		
3/30/01 8:46	D:\Chem\HillaSAMPLE		HILL0078.D	0mg/mL PFOS Study Numb	THPFOS	5.085	848676	254	-	PFOS	0	0	0		
3/30/01 9:01	D:\Chem\HillaSAMPLE		HILL0079.D	0mg/mL PFOS Study Numb	THPFOS	5.083	712693	254	-	PFOS	5.3	3185982	207.1555		
3/30/01 9:15	D:\Chem\HillaSAMPLE		HILL0080.D	0.5mg/mL PFOS Study Num	THPFOS	5.077	830763	254	-	PFOS	5.295	2350237	127.0906		
3/30/01 9:30	D:\Chem\HillaSAMPLE		HILL0081.D	0.5mg/mL PFOS Study Num	THPFOS	5.084	838359	254	-	PFOS	5.309	1735740	91.24829		
3/30/01 9:45	D:\Chem\HillaSAMPLE		HILL0082.D	0.5mg/mL PFOS Study Num	THPFOS	5.087	817463	254	-	PFOS	5.311	2751710	152.9141		
3/30/01 9:59	D:\Chem\HillaSAMPLE		HILL0083.D	5 ng/mL PFOS in MeOH	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	0	0	0	0.0%	**Sample level in Vial too low**
3/30/01 10:14	D:\Chem\HillaSAMPLE		HILL0084.D	25O.5 ng/mL PFOS in MeO	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	0	0	0	0.0%	**Sample level in Vial too low**
3/30/01 10:57	D:\Chem\HillaSAMPLE		HILL0087.D	0.5mg/mL PFOS Study Num	THPFOS	5.083	723549	254	-	PFOS	5.314	5581843	375.5325		
3/30/01 11:12	D:\Chem\HillaSAMPLE		HILL0088.D	2mg/mL PFOS Study Numb	THPFOS	5.086	829574	254	-	PFOS	5.303	7796382	468.2081		
3/30/01 11:26	D:\Chem\HillaSAMPLE		HILL0089.D	2mg/mL PFOS Study Numb	THPFOS	5.08	810539	254	-	PFOS	5.297	7782923	479.6898		
3/30/01 11:41	D:\Chem\HillaSAMPLE		HILL0090.D	2mg/mL PFOS Study Numb	THPFOS	5.078	813653	254	-	PFOS	5.295	7488962	457.3479		
3/30/01 11:55	D:\Chem\HillaSAMPLE		HILL0091.D	2mg/mL PFOS Study Numb	THPFOS	5.077	698202	254	-	PFOS	5.301	9920061	752.9404		
3/30/01 12:09	D:\Chem\HillaSAMPLE		HILL0092.D	5mg/mL PFOS Study Numb	THPFOS	5.072	870788	254	-	PFOS	5.297	4681978	252.8436		
3/30/01 12:24	D:\Chem\HillaSAMPLE		HILL0093.D	5mg/mL PFOS Study Numb	THPFOS	5.077	833403	254	-	PFOS	5.294	4589661	259.5041		
3/30/01 12:38	D:\Chem\HillaSAMPLE		HILL0094.D	5mg/mL PFOS Study Numb	THPFOS	5.078	865160	254	-	PFOS	5.302	4617034	250.8006		
3/30/01 12:53	D:\Chem\HillaSAMPLE		HILL0095.D	5mg/mL PFOS Study Numb	THPFOS	5.078	732175	254	-	PFOS	5.302	7091269	484.3771		

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3/30/01 13:07	D:\Chem\HillaSAMPLE	HILL0096.D	10mg/mL PFOS Study Num	THPFOS	5.07	871278	254	-	PFOS	5.294	8976434	519.4978	
3/30/01 13:21	D:\Chem\HillaSAMPLE	HILL0097.D	5 ng/mL PFOS in MeOH	THPFOS	5.07	1031178	254	-	PFOS	5.287	165503	4.265778	85.3%
3/30/01 13:36	D:\Chem\HillaSAMPLE	HILL0098.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.07	935555	254	-	PFOS	5.287	4930244	247.4028	98.8%
3/30/01 14:19	D:\Chem\HillaSAMPLE	HILL0101.D	10mg/mL PFOS Study Num	THPFOS	5.075	877270	254	-	PFOS	5.292	12899537	783.9937	
3/30/01 14:34	D:\Chem\HillaSAMPLE	HILL0102.D	10mg/mL PFOS Study Num	THPFOS	5.07	893385	254	-	PFOS	5.294	13256112	792.4273	
3/30/01 14:48	D:\Chem\HillaSAMPLE	HILL0103.D	10mg/mL PFOS Study Num	THPFOS	5.07	742701	254	-	PFOS	5.287	15131931	1161.188	
3/30/01 15:02	D:\Chem\HillaSAMPLE	HILL0104.D	50mg/mL PFOS Study Num	THPFOS	5.083	907624	254	-	PFOS	5.307	5518080	289.0022	
3/30/01 15:17	D:\Chem\HillaSAMPLE	HILL0105.D	50mg/mL PFOS Study Num	THPFOS	5.076	931206	254	-	PFOS	5.308	5108086	258.3954	
3/30/01 15:31	D:\Chem\HillaSAMPLE	HILL0106.D	50mg/mL PFOS Study Num	THPFOS	5.081	919670	254	-	PFOS	5.298	5181946	266.0334	
3/30/01 15:46	D:\Chem\HillaSAMPLE	HILL0107.D	50mg/mL PFOS Study Num	THPFOS	5.071	796555	254	-	PFOS	5.296	7665976	480.9168	
3/30/01 16:00	D:\Chem\HillaSAMPLE	HILL0108.D	0mg/mL PFOS Study Numb	THPFOS	5.079	849151	254	-	PFOS	5.311	742763	36.24765	
3/30/01 16:15	D:\Chem\HillaSAMPLE	HILL0109.D	0mg/mL PFOS Study Numb	THPFOS	5.084	829076	254	-	PFOS	5.301	183483	6.963474	
3/30/01 16:29	D:\Chem\HillaSAMPLE	HILL0110.D	0mg/mL PFOS Study Numb	THPFOS	5.083	821979	254	-	PFOS	5.307	107928	2.972255	
3/30/01 16:43	D:\Chem\HillaSAMPLE	HILL0111.D	5 ng/mL PFOS in MeOH	THPFOS	5.079	913364	254	-	PFOS	5.303	119662	2.959401	59.2%
3/30/01 16:58	D:\Chem\HillaSAMPLE	HILL0112.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.071	935372	254	-	PFOS	5.288	4919934	246.8948	98.6%
3/30/01 17:41	D:\Chem\HillaSAMPLE	HILL0115.D	0mg/mL PFOS Study Numb	THPFOS	5.084	706581	254	-	PFOS	5.308	3248594	213.5081	
3/30/01 17:56	D:\Chem\HillaSAMPLE	HILL0116.D	0.5mg/mL PFOS Study Num	THPFOS	5.085	824542	254	-	PFOS	5.302	1502753	79.69637	
3/30/01 18:10	D:\Chem\HillaSAMPLE	HILL0117.D	0.5mg/mL PFOS Study Num	THPFOS	5.077	816173	254	-	PFOS	5.294	1724356	93.22899	
3/30/01 18:24	D:\Chem\HillaSAMPLE	HILL0118.D	0.5mg/mL PFOS Study Num	THPFOS	5.085	807718	254	-	PFOS	5.302	1736346	94.96021	
3/30/01 18:39	D:\Chem\HillaSAMPLE	HILL0119.D	0.5mg/mL PFOS Study Num	THPFOS	5.079	699831	254	-	PFOS	5.303	4688064	321.3717	
3/30/01 18:53	D:\Chem\HillaSAMPLE	HILL0120.D	2mg/mL PFOS Study Numb	THPFOS	5.084	788878	254	-	PFOS	5.308	5634498	344.8627	
3/30/01 19:08	D:\Chem\HillaSAMPLE	HILL0121.D	2mg/mL PFOS Study Numb	THPFOS	5.077	809256	254	-	PFOS	5.295	5717625	340.7597	
3/30/01 19:22	D:\Chem\HillaSAMPLE	HILL0122.D	2mg/mL PFOS Study Numb	THPFOS	5.071	794520	254	-	PFOS	5.295	5974646	365.0473	
3/30/01 19:36	D:\Chem\HillaSAMPLE	HILL0123.D	2mg/mL PFOS Study Numb	THPFOS	5.077	683431	254	-	PFOS	5.301	8405232	636.3714	
3/30/01 19:51	D:\Chem\HillaSAMPLE	HILL0124.D	5mg/mL PFOS Study Numb	THPFOS	5.078	846191	254	-	PFOS	5.302	3725697	203.7979	
3/30/01 20:05	D:\Chem\HillaSAMPLE	HILL0125.D	5 ng/mL PFOS in MeOH	THPFOS	5.085	899639	254	-	PFOS	5.309	122088	3.167352	63.3%
3/30/01 20:20	D:\Chem\HillaSAMPLE	HILL0126.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.076	916782	254	-	PFOS	5.307	4879273	250.0647	99.8%
3/30/01 21:03	D:\Chem\HillaSAMPLE	HILL0129.D	5mg/mL PFOS Study Numb	THPFOS	5.078	862439	254	-	PFOS	5.309	3516962	187.7001	
3/30/01 21:17	D:\Chem\HillaSAMPLE	HILL0130.D	5mg/mL PFOS Study Numb	THPFOS	5.077	872248	254	-	PFOS	5.294	3677170	194.5103	
3/30/01 21:32	D:\Chem\HillaSAMPLE	HILL0131.D	5mg/mL PFOS Study Numb	THPFOS	5.075	730684	254	-	PFOS	5.299	6262922	422.2447	
3/30/01 21:46	D:\Chem\HillaSAMPLE	HILL0132.D	10mg/mL PFOS Study Num	THPFOS	5.07	853720	254	-	PFOS	5.294	6519410	371.3232	
3/30/01 22:00	D:\Chem\HillaSAMPLE	HILL0133.D	10mg/mL PFOS Study Num	THPFOS	5.069	867572	254	-	PFOS	5.3	6622791	371.1742	
3/30/01 22:15	D:\Chem\HillaSAMPLE	HILL0134.D	10mg/mL PFOS Study Num	THPFOS	5.078	825915	254	-	PFOS	5.302	6587808	389.7087	
3/30/01 22:29	D:\Chem\HillaSAMPLE	HILL0135.D	10mg/mL PFOS Study Num	THPFOS	5.077	705375	254	-	PFOS	5.301	8780758	645.3465	
3/30/01 22:44	D:\Chem\HillaSAMPLE	HILL0136.D	50mg/mL PFOS Study Num	THPFOS	5.077	891448	254	-	PFOS	5.301	3555043	183.2667	
3/30/01 22:58	D:\Chem\HillaSAMPLE	HILL0137.D	5 ng/mL PFOS in MeOH	THPFOS	5.077	947052	254	-	PFOS	5.301	121133	2.821811	56.4%
3/31/01 23:12	D:\Chem\HillaSAMPLE	HILL0138.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.084	930968	254	-	PFOS	5.308	4866574	245.2477	97.9%
3/31/01 23:56	D:\Chem\HillaSAMPLE	HILL0141.D	50mg/mL PFOS Study Num	THPFOS	5.078	900440	254	-	PFOS	5.295	3499027	178.2918	
3/31/01 0:10	D:\Chem\HillaSAMPLE	HILL0142.D	50mg/mL PFOS Study Num	THPFOS	5.077	896344	254	-	PFOS	5.288	3507729	179.6005	
3/31/01 0:24	D:\Chem\HillaSAMPLE	HILL0143.D	50mg/mL PFOS Study Num	THPFOS	5.077	785271	254	-	PFOS	5.294	6226527	387.1451	
3/31/01 0:39	D:\Chem\HillaSAMPLE	HILL0144.D	0mg/mL PFOS Study Numb	THPFOS	5.07	1517034	254	~~ISTD>130%~~	PFOS	5.294	607465	14.93697	
3/31/01 0:53	D:\Chem\HillaSAMPLE	HILL0145.D	0mg/mL PFOS Study Numb	THPFOS	5.07	1519670	254	~~ISTD>130%~~	PFOS	5.294	161015	1.850082	
3/31/01 1:08	D:\Chem\HillaSAMPLE	HILL0146.D	0mg/mL PFOS Study Numb	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	5.283	102458	0	
3/31/01 1:22	D:\Chem\HillaSAMPLE	HILL0147.D	0mg/mL PFOS Study Numb	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	5.294	2813295	0	
3/31/01 1:36	D:\Chem\HillaSAMPLE	HILL0148.D	0.5mg/mL PFOS Study Num	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	5.288	123415	0	
3/31/01 1:51	D:\Chem\HillaSAMPLE	HILL0149.D	0.5mg/mL PFOS Study Num	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	5.286	245088	0	
3/31/01 2:05	D:\Chem\HillaSAMPLE	HILL0150.D	0.5mg/mL PFOS Study Num	THPFOS	5.059	1378137	254	~~ISTD>130%~~	PFOS	5.283	154022	2.107086	
3/31/01 2:20	D:\Chem\HillaSAMPLE	HILL0151.D	5 ng/mL PFOS in MeOH	THPFOS	5.077	1127307	254	~~ISTD>130%~~	PFOS	5.301	104248	1.253723	25.1%
3/31/01 2:34	D:\Chem\HillaSAMPLE	HILL0152.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.07	1057386	254	-	PFOS	5.294	4570480	199.7993	79.8%
3/31/01 3:17	D:\Chem\HillaSAMPLE	HILL0155.D	0.5mg/mL PFOS Study Num	THPFOS	5.063	1222595	254	~~ISTD>130%~~	PFOS	5.294	2934417	106.7379	
3/31/01 3:32	D:\Chem\HillaSAMPLE	HILL0156.D	2mg/mL PFOS Study Numb	THPFOS	5.057	1394294	254	~~ISTD>130%~~	PFOS	5.288	298977	6.657971	
3/31/01 3:46	D:\Chem\HillaSAMPLE	HILL0157.D	2mg/mL PFOS Study Numb	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	5.295	308066	0	
3/31/01 4:00	D:\Chem\HillaSAMPLE	HILL0158.D	2mg/mL PFOS Study Numb	THPFOS	5.055	1405167	254	~~ISTD>130%~~	PFOS	5.286	261303	5.394641	
3/31/01 4:15	D:\Chem\HillaSAMPLE	HILL0159.D	2mg/mL PFOS Study Numb	THPFOS	5.055	1264058	254	~~ISTD>130%~~	PFOS	5.286	3012214	105.9273	
3/31/01 4:29	D:\Chem\HillaSAMPLE	HILL0160.D	5mg/mL PFOS Study Numb	THPFOS	5.062	1123797	254	~~ISTD>130%~~	PFOS	5.294	256463	7.269909	
3/31/01 4:44	D:\Chem\HillaSAMPLE	HILL0161.D	5mg/mL PFOS Study Numb	THPFOS	5.07	1170021	254	~~ISTD>130%~~	PFOS	5.301	268126	7.312199	
3/31/01 4:58	D:\Chem\HillaSAMPLE	HILL0162.D	5mg/mL PFOS Study Numb	THPFOS	5.069	1140248	254	~~ISTD>130%~~	PFOS	5.293	138591	2.540176	
3/31/01 5:12	D:\Chem\HillaSAMPLE	HILL0163.D	5mg/mL PFOS Study Numb	THPFOS	5.07	892226	254	-	PFOS	5.294	3214850	164.426	
3/31/01 5:27	D:\Chem\HillaSAMPLE	HILL0164.D	10mg/mL PFOS Study Num	THPFOS	5.071	1049855	254	-	PFOS	5.295	12043940	587.354	

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3/31/01 5:41	D:\Chem\HillaSAMPLE	HILL0165.D	10mg/mL PFOS Study Num	THPFOS	5.07	1029270	254	-	PFOS	5.294	7942166	375.6283	
3/31/01 5:56	D:\Chem\HillaSAMPLE	HILL0166.D	5 ng/mL PFOS in Me0H	THPFOS	5.077	1045844	254	-	PFOS	5.301	113187	1.95061	39.0%
3/31/01 6:10	D:\Chem\HillaSAMPLE	HILL0167.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.078	961392	254	-	PFOS	5.302	4685914	227.378	90.8%
3/31/01 6:53	D:\Chem\HillaSAMPLE	HILL0170.D	10mg/mL PFOS Study Num	THPFOS	5.078	983111	254	-	PFOS	5.302	11897888	624.6515	
3/31/01 7:08	D:\Chem\HillaSAMPLE	HILL0171.D	10mg/mL PFOS Study Num	THPFOS	5.062	781444	254	-	PFOS	5.294	13471666	947.5747	
3/31/01 7:22	D:\Chem\HillaSAMPLE	HILL0172.D	50mg/mL PFOS Study Num	THPFOS	5.077	863043	254	-	PFOS	5.294	547258	25.40056	
3/31/01 7:36	D:\Chem\HillaSAMPLE	HILL0173.D	50mg/mL PFOS Study Num	THPFOS	5.073	848190	254	-	PFOS	5.297	371026	16.58928	
3/31/01 7:51	D:\Chem\HillaSAMPLE	HILL0174.D	50mg/mL PFOS Study Num	THPFOS	5.078	958369	254	-	PFOS	5.302	502489	20.4758	
3/31/01 8:05	D:\Chem\HillaSAMPLE	HILL0175.D	50mg/mL PFOS Study Num	THPFOS	5.078	699825	254	-	PFOS	5.309	3544102	236.9754	
3/31/01 8:20	D:\Chem\HillaSAMPLE	HILL0176.D	0mg/mL PFOS Study Numb	THPFOS	5.07	1475601	254	~~ISTD>130%~~	PFOS	0	0	0	
3/31/01 8:34	D:\Chem\HillaSAMPLE	HILL0177.D	0mg/mL PFOS Study Numb	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	5.3	15403	0	
3/31/01 8:48	D:\Chem\HillaSAMPLE	HILL0178.D	0mg/mL PFOS Study Numb	THPFOS	5.077	1496086	254	~~ISTD>130%~~	PFOS	0	0	0	
3/31/01 9:03	D:\Chem\HillaSAMPLE	HILL0179.D	0mg/mL PFOS Study Numb	THPFOS	5.07	1338136	254	~~ISTD>130%~~	PFOS	5.294	2562313	83.98912	
3/31/01 9:17	D:\Chem\HillaSAMPLE	HILL0180.D	5 ng/mL PFOS in Me0H	THPFOS	5.077	1319457	254	~~ISTD>130%~~	PFOS	0	0	0	0.0%
3/31/01 9:32	D:\Chem\HillaSAMPLE	HILL0181.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.077	1233038	254	~~ISTD>130%~~	PFOS	5.301	4581504	169.9125	67.8%
3/31/01 10:15	D:\Chem\HillaSAMPLE	HILL0184.D	0.5mg/mL PFOS Study Num	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	5.296	106080	0	
3/31/01 10:29	D:\Chem\HillaSAMPLE	HILL0185.D	0.5mg/mL PFOS Study Num	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	5.296	88413	0	
3/31/01 10:44	D:\Chem\HillaSAMPLE	HILL0186.D	0.5mg/mL PFOS Study Num	THPFOS	5.071	1471417	254	~~ISTD>130%~~	PFOS	0	0	0	
3/31/01 10:58	D:\Chem\HillaSAMPLE	HILL0187.D	0.5mg/mL PFOS Study Num	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	5.294	2763394	0	
3/31/01 11:13	D:\Chem\HillaSAMPLE	HILL0188.D	2mg/mL PFOS Study Numb	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	5.294	243781	0	
3/31/01 11:27	D:\Chem\HillaSAMPLE	HILL0189.D	2mg/mL PFOS Study Numb	THPFOS	0	0	0	~~ISTD<70%~~	PFOS	5.288	191714	0	
3/31/01 11:41	D:\Chem\HillaSAMPLE	HILL0190.D	2mg/mL PFOS Study Numb	THPFOS	5.056	1464319	254	~~ISTD>130%~~	PFOS	5.287	184484	2.736832	
3/31/01 11:56	D:\Chem\HillaSAMPLE	HILL0191.D	2mg/mL PFOS Study Numb	THPFOS	5.056	1287803	254	~~ISTD>130%~~	PFOS	5.288	2856662	98.17581	
3/31/01 12:10	D:\Chem\HillaSAMPLE	HILL0192.D	5mg/mL PFOS Study Numb	THPFOS	5.057	1254007	254	~~ISTD>130%~~	PFOS	5.288	314686	8.279809	
3/31/01 12:25	D:\Chem\HillaSAMPLE	HILL0193.D	5mg/mL PFOS Study Numb	THPFOS	5.072	1222970	254	~~ISTD>130%~~	PFOS	5.289	267523	6.849741	
3/31/01 12:39	D:\Chem\HillaSAMPLE	HILL0194.D	5 ng/mL PFOS in Me0H	THPFOS	5.055	1252112	254	~~ISTD>130%~~	PFOS	0	0	0	0.0%
3/31/01 12:53	D:\Chem\HillaSAMPLE	HILL0195.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.062	1233786	254	~~ISTD>130%~~	PFOS	5.286	4563196	169.0775	67.5%
3/31/01 13:37	D:\Chem\HillaSAMPLE	HILL0198.D	5mg/mL PFOS Study Numb	THPFOS	5.07	1196708	254	~~ISTD>130%~~	PFOS	5.294	188759	4.143137	
3/31/01 13:51	D:\Chem\HillaSAMPLE	HILL0199.D	5mg/mL PFOS Study Numb	THPFOS	5.074	940569	254	-	PFOS	5.298	3245571	157.0094	
3/31/01 14:05	D:\Chem\HillaSAMPLE	HILL0200.D	10mg/mL PFOS Study Num	THPFOS	5.077	1165476	254	~~ISTD>130%~~	PFOS	5.301	335088	9.90566	
3/31/01 14:20	D:\Chem\HillaSAMPLE	HILL0201.D	10mg/mL PFOS Study Num	THPFOS	5.071	1154702	254	~~ISTD>130%~~	PFOS	5.302	525297	17.37075	
3/31/01 14:34	D:\Chem\HillaSAMPLE	HILL0202.D	10mg/mL PFOS Study Num	THPFOS	5.077	1154514	254	~~ISTD>130%~~	PFOS	5.301	550957	18.36785	
3/31/01 14:49	D:\Chem\HillaSAMPLE	HILL0203.D	10mg/mL PFOS Study Num	THPFOS	5.077	938013	254	-	PFOS	5.301	3645184	178.2599	
3/31/01 15:03	D:\Chem\HillaSAMPLE	HILL0204.D	50mg/mL PFOS Study Num	THPFOS	5.077	1005094	254	-	PFOS	5.294	256482	8.468139	
3/31/01 15:17	D:\Chem\HillaSAMPLE	HILL0205.D	50mg/mL PFOS Study Num	THPFOS	5.084	1020410	254	-	PFOS	5.301	233790	7.309995	
3/31/01 15:32	D:\Chem\HillaSAMPLE	HILL0206.D	50mg/mL PFOS Study Num	THPFOS	5.077	970721	254	-	PFOS	5.309	231102	7.707909	
3/31/01 15:46	D:\Chem\HillaSAMPLE	HILL0207.D	50mg/mL PFOS Study Num	THPFOS	5.078	844704	254	-	PFOS	5.302	3674257	201.1561	
3/31/01 16:01	D:\Chem\HillaSAMPLE	HILL0208.D	5 ng/mL PFOS in Me0H	THPFOS	5.077	937393	254	-	PFOS	5.295	112408	2.468054	49.4%
3/31/01 16:15	D:\Chem\HillaSAMPLE	HILL0209.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.07	900866	254	-	PFOS	5.294	4662409	242.609	96.8%

cmc 4/3/01 pg 5065

Batch Sample List: Curve and Calibration Checks
Acquistion Instrument/Sequence: **Hillary/H010319(a)**
Date/Analyst of Reprocessing: **02 Apr 01 / MLA**
Batch Method: **R010319a.m**
Quantitation Range: ***2.5 to 1002 ng/mL***

Inj Date	Batch	SampType	File	Sample Name	Misc. Info.	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	Theoretical
~~3/19/2001 19:50~~	~~C:\CHEM\Hillary.i\H010319-a.b~~	~~SAMPLE~~	~~HILL0016.D~~	~~0 ng/mL PFOS in MeOH~~	~~01003-07-01~~	~~THPFOS~~	~~4.97~~	~~947316~~	~~254~~	~~PFOS~~	~~0.00~~	~~0~~	~~0.0~~	
3/19/2001 20:05	C:\CHEM\Hillary.i\H010319-a.b	CALIB_1	HILL0017.D	2.5 ng/mL PFOS in MeOH	01003-07-02	THPFOS	4.96	952704	254	PFOS	5.18	63092	3.2	27.7%
3/19/2001 20:19	C:\CHEM\Hillary.i\H010319-a.b	CALIB_2	HILL0018.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	4.97	958659	254	PFOS	5.18	108976	5.2	4.5%
3/19/2001 20:33	C:\CHEM\Hillary.i\H010319-a.b	CALIB_3	HILL0019.D	10 ng/mL PFOS in MeOH	01003-07-04	THPFOS	4.96	946379	254	PFOS	5.19	207712	9.8	2.4%
3/19/2001 20:48	C:\CHEM\Hillary.i\H010319-a.b	CALIB_4	HILL0020.D	25 ng/mL PFOS in MeOH	01003-07-05	THPFOS	4.96	954921	254	PFOS	5.18	553295	25.4	1.4%
3/19/2001 21:02	C:\CHEM\Hillary.i\H010319-a.b	CALIB_5	HILL0021.D	40 ng/mL PFOS in MeOH	01003-07-06	THPFOS	4.97	955330	254	PFOS	5.19	871355	40.0	0.1%
3/19/2001 21:16	C:\CHEM\Hillary.i\H010319-a.b	CALIB_6	HILL0022.D	50.1 ng/mL PFOS in MeOH	01003-07-07	THPFOS	4.96	958316	254	PFOS	5.19	1084605	49.8	0.6%
3/19/2001 21:31	C:\CHEM\Hillary.i\H010319-a.b	CALIB_7	HILL0023.D	75.1 ng/mL PFOS in MeOH	01003-07-08	THPFOS	4.96	961545	254	PFOS	5.19	1595162	73.7	2.0%
3/19/2001 21:45	C:\CHEM\Hillary.i\H010319-a.b	CALIB_8	HILL0024.D	100.2 ng/mL PFOS in MeOH	01003-07-09	THPFOS	4.97	961218	254	PFOS	5.18	2149447	100.4	0.2%
3/19/2001 22:00	C:\CHEM\Hillary.i\H010319-a.b	CALIB_9	HILL0025.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	4.97	963600	254	PFOS	5.19	5065486	250.5	0.0%
3/19/2001 22:14	C:\CHEM\Hillary.i\H010319-a.b	CALIB_10	HILL0026.D	400.8 ng/mL PFOS in MeOH	01003-07-11	THPFOS	4.97	945005	254	PFOS	5.19	7558280	401.6	0.2%
3/19/2001 22:28	C:\CHEM\Hillary.i\H010319-a.b	CALIB_11	HILL0027.D	501 ng/mL PFOS in MeOH	01003-07-12	THPFOS	4.97	937041	254	PFOS	5.19	9061046	500.7	0.1%
3/19/2001 22:43	C:\CHEM\Hillary.i\H010319-a.b	CALIB_12	HILL0028.D	1002 ng/mL PFOS in MeOH	01003-07-13	THPFOS	4.96	930802	254	PFOS	5.18	15880052	1002.0	0.0%
3/20/2001 2:04	C:\CHEM\Hillary.i\H010319-a.b	CCALIB_1	HILL0042.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	4.97	869312	254	PFOS	5.19	107823	5.7	13.4%
3/20/2001 2:18	C:\CHEM\Hillary.i\H010319-a.b	CCALIB_1	HILL0043.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	4.97	865137	254	PFOS	5.19	4962586	275.9	10.1%
3/20/2001 5:11	C:\CHEM\Hillary.i\H010319-a.b	CCALIB_1	HILL0055.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	4.97	854600	254	PFOS	5.20	104397	5.6	11.8%
3/20/2001 5:25	C:\CHEM\Hillary.i\H010319-a.b	CCALIB_1	HILL0056.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	4.97	852353	254	PFOS	5.20	4950256	279.7	11.7%
3/20/2001 8:32	C:\CHEM\Hillary.i\H010319-a.b	CCALIB_1	HILL0069.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	4.98	828170	254	PFOS	5.20	111868	6.2	22.8%
3/20/2001 8:47	C:\CHEM\Hillary.i\H010319-a.b	CCALIB_1	HILL0070.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	4.99	821673	254	PFOS	5.21	4958647	291.9	16.5%
3/20/2001 11:25	C:\CHEM\Hillary.i\H010319-a.b	CCALIB_1	HILL0081.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	4.96	792949	254	PFOS	5.19	108119	6.2	23.9%
3/20/2001 11:39	C:\CHEM\Hillary.i\H010319-a.b	CCALIB_1	HILL0082.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	4.96	787755	254	PFOS	5.19	4876204	300.3	19.9%
3/20/2001 14:18	C:\CHEM\Hillary.i\H010319-a.b	CCALIB_1	HILL0093.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	4.98	795135	254	PFOS	5.20	111428	6.4	27.2%
3/20/2001 14:32	C:\CHEM\Hillary.i\H010319-a.b	CCALIB_1	HILL0094.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	4.98	793444	254	PFOS	5.20	4914110	300.5	20.0%
						Average Area:		897103						
						Std Dev:		67424.5						
						%RSD:		8%						

Batch Sample List: Samples Only
Acquistion Instrument/Sequence: **Hillary/H010319(a)**
Date/Analyst of Reprocessing: **02 Apr 01 / MLA**
Batch Method: **R010319a.m**
Quantitation Range: **2.5 to 1002 ng/mL**

Inj Date	Batch	SampType	File	Sample Name	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount
3/19/2001 23:40	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0032.D	1311-4124-S2	THPFOS	4.97	912437	254	PFOS	0.00	0	0.0
3/19/2001 23:54	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0033.D	1311-4125-S2	THPFOS	4.97	929948	254	PFOS	0.00	0	0.0
3/20/2001 0:09	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0034.D	1311-4126-S2	THPFOS	4.96	896524	254	PFOS	5.19	24098	1.5
3/20/2001 0:23	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0035.D	1311-4148-S2	THPFOS	4.97	912022	254	PFOS	5.19	634921	30.5
3/20/2001 0:38	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0036.D	1311-4149-S2	THPFOS	4.97	896921	254	PFOS	5.19	662089	32.4
3/20/2001 0:52	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0037.D	1311-4150-S2	THPFOS	4.97	864432	254	PFOS	5.19	600651	30.4
3/20/2001 1:06	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0038.D	1311-4124-S3	THPFOS	4.97	851789	254	PFOS	0.00	0	0.0
3/20/2001 1:21	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0039.D	1311-4124-S3	THPFOS	4.97	760590	254	PFOS	5.11	11390	1.0
3/20/2001 1:35	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0040.D	1311-4126-S3	THPFOS	4.96	855770	254	PFOS	0.00	0	0.0
3/20/2001 1:49	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0041.D	1311-4148-S3	THPFOS	4.97	815449	254	PFOS	5.19	725638	39.1
3/20/2001 3:01	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0046.D	1311-4149-S3	THPFOS	4.97	799794	254	PFOS	5.19	701086	38.5
3/20/2001 3:16	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0047.D	1311-4150-S3	THPFOS	4.97	795722	254	PFOS	5.20	791683	43.7
3/20/2001 3:30	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0048.D	1311-4124-S4	THPFOS	4.97	778881	254	PFOS	5.20	18545	1.4
3/20/2001 3:44	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0049.D	1311-4125-S4	THPFOS	4.97	829069	254	PFOS	5.19	88450	4.9
3/20/2001 3:59	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0050.D	1311-4148-S4	THPFOS	4.97	831754	254	PFOS	5.20	2403148	131.4
3/20/2001 4:13	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0051.D	1311-4149-S4	THPFOS	4.97	822782	254	PFOS	5.19	1442298	78.0
3/20/2001 4:28	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0052.D	1311-4150-S4	THPFOS	4.97	783261	254	PFOS	5.19	3545457	212.6
3/20/2001 4:42	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0053.D	1311-4124-S5	THPFOS	4.97	832109	254	PFOS	5.21	19220	1.4
3/20/2001 4:56	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0054.D	1311-4125-S5	THPFOS	0.00	0	0	PFOS	0.00	0	0.0
3/20/2001 6:08	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0059.D	1311-4126-S5	THPFOS	4.98	870389	254	PFOS	5.20	20928	1.4
3/20/2001 6:23	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0060.D	1311-4148-S5	THPFOS	4.99	818725	254	PFOS	5.21	1344937	72.9
3/20/2001 6:37	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0061.D	1311-4149-S5	THPFOS	4.99	813491	254	PFOS	5.21	1158276	63.0
3/20/2001 6:51	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0062.D	1311-4150-S5	THPFOS	4.99	836794	254	PFOS	5.22	1492192	79.4
3/20/2001 7:06	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0063.D	1311-4124-S6	THPFOS	4.99	794532	254	PFOS	5.22	22539	1.6
3/20/2001 7:20	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0064.D	1311-4125-S6	THPFOS	4.99	935394	254	PFOS	5.21	16342	1.1
3/20/2001 7:35	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0065.D	1311-4126-S6	THPFOS	4.99	819696	254	PFOS	5.21	12441	1.0
3/20/2001 7:49	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0066.D	1311-4126MS-S6	THPFOS	4.99	682208	254	PFOS	5.22	3391548	235.6
3/20/2001 8:03	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0067.D	1311-4148-S6	THPFOS	4.99	824967	254	PFOS	5.22	1104066	59.1
3/20/2001 8:18	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0068.D	1311-4149-S6	THPFOS	4.99	796443	254	PFOS	5.21	1163274	64.6
3/20/2001 9:30	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0073.D	1311-4150-S6	THPFOS	4.97	790214	254	PFOS	5.20	1145873	64.2
3/20/2001 9:44	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0074.D	1311-4150MS-S6	THPFOS	4.97	671901	254	PFOS	5.20	4132085	298.1
3/20/2001 9:59	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0075.D	1311-4124-S7	THPFOS	4.97	833453	254	PFOS	5.20	38789	2.4
3/20/2001 10:13	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0076.D	1311-4125-S7	THPFOS	4.97	781273	254	PFOS	5.20	22919	1.6
3/20/2001 10:27	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0077.D	1311-4126-S7	THPFOS	4.97	822529	254	PFOS	5.25	79060	4.5
3/20/2001 10:42	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0078.D	1311-4148-S7	THPFOS	4.97	788804	254	PFOS	5.20	1077441	60.4
3/20/2001 10:56	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0079.D	1311-4149-S7	THPFOS	4.97	839982	254	PFOS	5.20	1199443	63.2
3/20/2001 11:11	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0080.D	1311-4150-S7	THPFOS	4.97	766667	254	PFOS	5.19	1234169	71.4
3/20/2001 12:23	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0085.D	1311-4124-S8	THPFOS	4.97	873274	254	PFOS	5.20	28965	1.8
3/20/2001 12:37	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0086.D	1311-4125-S8	THPFOS	4.98	851164	254	PFOS	5.20	41619	2.5
3/20/2001 12:51	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0087.D	1311-4126-S8	THPFOS	4.97	794047	254	PFOS	5.21	20502	1.5
3/20/2001 13:06	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0088.D	1311-4126MS-S8	THPFOS	4.98	720378	254	PFOS	5.20	3590912	236.3
3/20/2001 13:20	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0089.D	1311-4148-S8	THPFOS	4.97	819035	254	PFOS	5.20	1087596	58.6
3/20/2001 13:35	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0090.D	1311-4149-S8	THPFOS	4.98	837526	254	PFOS	5.20	1189179	62.8
3/20/2001 13:49	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0091.D	1311-4150-S8	THPFOS	4.98	867770	254	PFOS	5.21	720004	36.4
3/20/2001 14:03	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0092.D	1311-4150MS-S8	THPFOS	4.98	765928	254	PFOS	5.21	4692081	296.8

(REV1) 8-29-01

Batch Sample List: Methanol Blanks
Acquistion Instrument/Sequence: **Hillary/H010319(a)**
Date/Analyst of Reprocessing: **02 Apr 01 / MLA**
Batch Method: **R010319a.m**
Quantitation Range: **2.5 to 1002 ng/mL**

Inj Date	Batch	SampType	File	Sample Name	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount
3/19/2001 19:22	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0014.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.22	14278	0
3/19/2001 19:36	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0015.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0
3/19/2001 22:57	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0029.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.21	27267	0
3/19/2001 23:11	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0030.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.25	11603	0
3/19/2001 23:26	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0031.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0
3/20/2001 2:33	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0044.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0
3/20/2001 2:47	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0045.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0
3/20/2001 5:40	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0057.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0
3/20/2001 5:54	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0058.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0
3/20/2001 9:01	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0071.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0
3/20/2001 9:15	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0072.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0
3/20/2001 11:54	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0083.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0
3/20/2001 12:08	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0084.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0
3/20/2001 14:47	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0095.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0
3/20/2001 15:01	C:\CHEM\Hillary.i\H010319-a.b	SAMPLE	HILL0096.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	0.00	0	0

Batch Sample List: Curve and Calibration Checks
Acquistion Instrument/Sequence: Rush / R010312
Date/Analyst of Reprocessing: 27-28 Mar 01 / MLA
Batch Method: R010312.m
Quantitation Range: 5 to 501 ng/mL, Quadratic fit, Internal Standard Quant.

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	Theoretical
~~3/13/2001 12:36~~	~~C:\CHEM\Rush.i\R010312.b~~	~~SAMPLE~~	~~RUSH0016.D~~	~~0 ng/mL PFOS in MeOH~~	~~01003-07-01~~	~~THPFOS~~	~~5.52~~	~~1161404~~	~~254~~	~~PFOS~~	~~0.00~~	~~0~~	~~0.0~~	
~~3/13/2001 12:47~~	~~C:\CHEM\Rush.i\R010312.b~~	~~SAMPLE~~	~~RUSH0017.D~~	~~2.5 ng/mL PFOS in MeOH~~	~~01003-07-02~~	~~THPFOS~~	~~5.52~~	~~1171076~~	~~254~~	~~PFOS~~	~~5.74~~	~~129338~~	~~1.2~~	
3/13/2001 12:59	C:\CHEM\Rush.i\R010312.b	CALIB_1	RUSH0018.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.52	1175891	254	PFOS	5.73	204920	3.5	70.1%
3/13/2001 13:10	C:\CHEM\Rush.i\R010312.b	CALIB_2	RUSH0019.D	10 ng/mL PFOS in MeOH	01003-07-04	THPFOS	5.52	1179538	254	PFOS	5.73	357143	8.1	81.1%
3/13/2001 13:21	C:\CHEM\Rush.i\R010312.b	CALIB_3	RUSH0020.D	25 ng/mL PFOS in MeOH	01003-07-05	THPFOS	5.51	1182564	254	PFOS	5.72	891797	24.7	98.7%
3/13/2001 13:33	C:\CHEM\Rush.i\R010312.b	CALIB_4	RUSH0021.D	40 ng/mL PFOS in MeOH	01003-07-06	THPFOS	5.52	1170614	254	PFOS	5.73	1351707	39.9	99.7%
3/13/2001 13:44	C:\CHEM\Rush.i\R010312.b	CALIB_5	RUSH0022.D	50.1 ng/mL PFOS in MeOH	01003-07-07	THPFOS	5.51	1181798	254	PFOS	5.72	1672821	50.0	99.8%
3/13/2001 13:55	C:\CHEM\Rush.i\R010312.b	CALIB_6	RUSH0023.D	75.1 ng/mL PFOS in MeOH	01003-07-08	THPFOS	5.50	1181055	254	PFOS	5.72	2422605	75.5	100.6%
3/13/2001 14:07	C:\CHEM\Rush.i\R010312.b	CALIB_7	RUSH0024.D	100.2 ng/mL PFOS in MeOH	01003-07-09	THPFOS	5.52	1158213	254	PFOS	5.73	3017918	98.8	98.6%
3/13/2001 14:18	C:\CHEM\Rush.i\R010312.b	CALIB_8	RUSH0025.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.51	1161020	254	PFOS	5.73	6654469	246.3	98.3%
3/13/2001 14:29	C:\CHEM\Rush.i\R010312.b	CALIB_9	RUSH0026.D	400.8 ng/mL PFOS in MeOH	01003-07-11	THPFOS	5.51	1178672	254	PFOS	5.73	9884645	393.6	98.2%
3/13/2001 14:41	C:\CHEM\Rush.i\R010312.b	CALIB_10	RUSH0027.D	501 ng/mL PFOS in MeOH	01003-07-12	THPFOS	5.51	1183842	254	PFOS	5.73	11780946	490.1	97.8%
3/13/2001 17:08	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0040.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.50	1100680	254	PFOS	5.71	199857	3.8	75.3%
3/13/2001 17:19	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0041.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.51	1104166	254	PFOS	5.73	6579760	258.1	103.0%
3/13/2001 19:47	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0054.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.50	1077492	254	PFOS	5.71	203470	4.0	80.5%
3/13/2001 19:58	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0055.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.50	1087960	254	PFOS	5.71	6288787	248.8	99.3%
3/13/2001 22:26	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0068.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.48	1078955	254	PFOS	5.70	191841	3.6	72.5%
3/13/2001 22:37	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0069.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.48	1102376	254	PFOS	5.69	6376911	249.0	99.4%
3/14/2001 1:05	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0082.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.49	1038142	254	PFOS	5.70	211733	4.6	91.3%
3/14/2001 1:16	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0083.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.47	1024757	254	PFOS	5.69	6137149	259.6	103.7%
3/14/2001 3:44	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0096.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.46	1028519	254	PFOS	5.67	188604	3.8	76.6%
3/14/2001 3:55	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0097.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.46	1029337	254	PFOS	5.67	6114459	257.1	102.6%
3/14/2001 6:23	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0110.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.47	1016043	254	PFOS	5.68	197545	4.2	84.5%
3/14/2001 6:34	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0111.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.46	1006141	254	PFOS	5.68	6034586	260.1	103.8%
3/14/2001 9:02	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0124.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.47	1011902	254	PFOS	5.68	189737	4.0	79.5%
3/14/2001 9:14	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0125.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.47	990965	254	PFOS	5.68	6021739	264.3	105.5%
3/14/2001 11:07	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0135.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.47	995988	254	PFOS	5.69	187812	4.0	80.3%
3/14/2001 11:18	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0136.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.47	995410	254	PFOS	5.69	6061624	264.9	105.8%
~~3/14/2001 11:52~~	~~C:\CHEM\Rush.i\R010312.b~~	~~SAMPLE~~	~~RUSH0139.D~~	~~0 ng/mL PFOS in MeOH~~	~~01003-07-01~~	~~THPFOS~~	~~5.47~~	~~987048~~	~~254~~	~~PFOS~~	~~0.00~~	~~0~~	~~0.0~~	
~~3/14/2001 12:04~~	~~C:\CHEM\Rush.i\R010312.b~~	~~SAMPLE~~	~~RUSH0140.D~~	~~2.5 ng/mL PFOS in MeOH~~	~~01003-07-02~~	~~THPFOS~~	~~5.47~~	~~1004431~~	~~254~~	~~PFOS~~	~~5.69~~	~~122277~~	~~1.0~~	
3/14/2001 12:15	C:\CHEM\Rush.i\R010312.b	CALIB_11	RUSH0141.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.46	1010117	254	PFOS	5.68	184884	3.8	76.3%
3/14/2001 12:26	C:\CHEM\Rush.i\R010312.b	CALIB_12	RUSH0142.D	10 ng/mL PFOS in MeOH	01003-07-04	THPFOS	5.46	999012	254	PFOS	5.68	324179	8.9	89.0%
3/14/2001 12:38	C:\CHEM\Rush.i\R010312.b	CALIB_13	RUSH0143.D	25 ng/mL PFOS in MeOH	01003-07-05	THPFOS	5.46	1013523	254	PFOS	5.68	787488	25.5	102.1%
3/14/2001 12:49	C:\CHEM\Rush.i\R010312.b	CALIB_14	RUSH0144.D	40 ng/mL PFOS in MeOH	01003-07-06	THPFOS	5.46	1000910	254	PFOS	5.68	1203328	41.7	104.2%
3/14/2001 13:01	C:\CHEM\Rush.i\R010312.b	CALIB_15	RUSH0145.D	50.1 ng/mL PFOS in MeOH	01003-07-07	THPFOS	5.46	1019495	254	PFOS	5.68	1495911	52.0	103.9%
3/14/2001 13:12	C:\CHEM\Rush.i\R010312.b	CALIB_16	RUSH0146.D	75.1 ng/mL PFOS in MeOH	01003-07-08	THPFOS	5.46	1013642	254	PFOS	5.68	2154462	78.6	104.6%
3/14/2001 13:23	C:\CHEM\Rush.i\R010312.b	CALIB_17	RUSH0147.D	100.2 ng/mL PFOS in MeOH	01003-07-09	THPFOS	5.47	1007297	254	PFOS	5.69	2739039	103.6	103.4%
3/14/2001 13:35	C:\CHEM\Rush.i\R010312.b	CALIB_18	RUSH0148.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.46	1010097	254	PFOS	5.67	5867202	250.2	99.9%
3/14/2001 13:46	C:\CHEM\Rush.i\R010312.b	CALIB_19	RUSH0149.D	400.8 ng/mL PFOS in MeOH	01003-07-11	THPFOS	5.46	995285	254	PFOS	5.67	8617452	409.9	102.3%
3/14/2001 13:57	C:\CHEM\Rush.i\R010312.b	CALIB_20	RUSH0150.D	501 ng/mL PFOS in MeOH	01003-07-12	THPFOS	5.46	1019903	254	PFOS	5.67	10475418	510.6	101.9%
							Average:	1070314		QC IS Range (+/- 30% average)				
							Std Dev:	73154		1381408 +30%				
							%RSD:	7%		748220 -30%				

** Lined out calibration points are not used in the calibration calculations.

Batch Sample List: Samples Only
Acquistion Instrument/Sequence: **Rush / R010312**
Date/Analyst of Reprocessing: **27-28 Mar 01 / MLA**
Batch Method: **R010312.m**
Quantitation Range: **5 to 501 ng/mL, Quadratic fit, Internal Standard Quant.**

Inj Date	Batch	File	Sample Name	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount
3/13/2001 15:15	C:\CHEM\Rush.i\R010312.b	RUSH0030.D	1311-5088-S1	THPFOS	5.51	1385664	254	PFOS	5.73	9084269	289.8
3/13/2001 15:26	C:\CHEM\Rush.i\R010312.b	RUSH0031.D	1311-5089	THPFOS	5.51	1477514	254	PFOS	5.72	9108410	268.9
3/13/2001 15:37	C:\CHEM\Rush.i\R010312.b	RUSH0032.D	1311-5090	THPFOS	5.50	1191529	254	PFOS	5.72	7368006	269.9
~~3/13/2001 15:48~~	~~C:\CHEM\Rush.i\R010312.b~~	~~RUSH0033.D~~	~~1311-5090MS~~	~~THPFOS~~	~~5.50~~	~~1052794~~	~~254~~	~~PFOS~~	~~5.71~~	~~14827440~~	~~528.8~~
3/13/2001 16:00	C:\CHEM\Rush.i\R010312.b	RUSH0034.D	1311-5091	THPFOS	5.51	1269217	254	PFOS	5.73	1291151	34.6
3/13/2001 16:11	C:\CHEM\Rush.i\R010312.b	RUSH0035.D	1311-5092	THPFOS	5.51	1192069	254	PFOS	5.72	334372	7.3
3/13/2001 16:23	C:\CHEM\Rush.i\R010312.b	RUSH0036.D	1311-5093	THPFOS	5.51	1150399	254	PFOS	5.72	177340	2.8
3/13/2001 16:34	C:\CHEM\Rush.i\R010312.b	RUSH0037.D	1311-5093MS	THPFOS	5.50	1021896	254	PFOS	5.72	4988076	203.3
3/13/2001 16:45	C:\CHEM\Rush.i\R010312.b	RUSH0038.D	1311-5094	THPFOS	5.51	1149765	254	PFOS	5.72	1598564	49.0
3/13/2001 16:57	C:\CHEM\Rush.i\R010312.b	RUSH0039.D	1311-5095	THPFOS	5.50	1187956	254	PFOS	5.72	1827571	54.8
3/13/2001 17:54	C:\CHEM\Rush.i\R010312.b	RUSH0044.D	1311-5096	THPFOS	5.51	1190238	254	PFOS	5.72	1567771	46.2
3/13/2001 18:05	C:\CHEM\Rush.i\R010312.b	RUSH0045.D	1311-5096MS	THPFOS	5.51	1010278	254	PFOS	5.73	6130982	263.8
3/13/2001 18:16	C:\CHEM\Rush.i\R010312.b	RUSH0046.D	1311-5097	THPFOS	5.51	1151402	254	PFOS	5.72	5335559	191.2
3/13/2001 18:28	C:\CHEM\Rush.i\R010312.b	RUSH0047.D	1311-5098	THPFOS	5.51	1115232	254	PFOS	5.72	6471149	249.9
3/13/2001 18:39	C:\CHEM\Rush.i\R010312.b	RUSH0048.D	1311-5099	THPFOS	5.50	1102724	254	PFOS	5.71	6167800	239.1
~~3/13/2001 18:50~~	~~C:\CHEM\Rush.i\R010312.b~~	~~RUSH0049.D~~	~~1311-5099MS~~	~~THPFOS~~	~~5.50~~	~~971664~~	~~254~~	~~PFOS~~	~~5.71~~	~~9911417~~	~~588.8~~
3/13/2001 19:02	C:\CHEM\Rush.i\R010312.b	RUSH0050.D	1311-5100	THPFOS	5.50	1062217	254	PFOS	5.71	4081880	153.8
3/13/2001 19:13	C:\CHEM\Rush.i\R010312.b	RUSH0051.D	1311-5101	THPFOS	5.49	1091409	254	PFOS	5.71	3885669	140.8
3/13/2001 19:24	C:\CHEM\Rush.i\R010312.b	RUSH0052.D	1311-5102	THPFOS	5.49	1089550	254	PFOS	5.71	3812836	138.0
3/13/2001 19:36	C:\CHEM\Rush.i\R010312.b	RUSH0053.D	1311-5102MS	THPFOS	5.49	954668	254	PFOS	5.71	7634048	370.7
3/13/2001 20:32	C:\CHEM\Rush.i\R010312.b	RUSH0058.D	1311-5103	THPFOS	5.49	1117174	254	PFOS	5.70	7957940	321.0
3/13/2001 20:44	C:\CHEM\Rush.i\R010312.b	RUSH0059.D	1311-5104	THPFOS	5.50	1116604	254	PFOS	5.71	7667501	306.8
3/13/2001 20:55	C:\CHEM\Rush.i\R010312.b	RUSH0060.D	1311-5105	THPFOS	5.48	1086708	254	PFOS	5.69	7435595	305.4
~~3/13/2001 21:07~~	~~C:\CHEM\Rush.i\R010312.b~~	~~RUSH0061.D~~	~~1311-5105MS~~	~~THPFOS~~	~~5.51~~	~~943467~~	~~254~~	~~PFOS~~	~~5.73~~	~~10866898~~	~~588.8~~
3/13/2001 21:18	C:\CHEM\Rush.i\R010312.b	RUSH0062.D	1311-5106	THPFOS	5.49	1197459	254	PFOS	5.71	5272348	180.1
3/13/2001 21:29	C:\CHEM\Rush.i\R010312.b	RUSH0063.D	1311-5107	THPFOS	5.49	1180945	254	PFOS	5.69	5098549	176.0
3/13/2001 21:41	C:\CHEM\Rush.i\R010312.b	RUSH0064.D	1311-5108	THPFOS	5.49	1203215	254	PFOS	5.70	5046570	170.2
3/13/2001 21:52	C:\CHEM\Rush.i\R010312.b	RUSH0065.D	1311-5108MS	THPFOS	5.48	1052179	254	PFOS	5.70	9075493	407.9
3/13/2001 22:03	C:\CHEM\Rush.i\R010312.b	RUSH0066.D	1311-5109	THPFOS	5.49	1065391	254	PFOS	5.70	478603	13.4
3/13/2001 22:15	C:\CHEM\Rush.i\R010312.b	RUSH0067.D	1311-5110	THPFOS	5.48	1166374	254	PFOS	5.69	154573	2.0
3/13/2001 23:11	C:\CHEM\Rush.i\R010312.b	RUSH0072.D	1311-5111	THPFOS	5.48	1179002	254	PFOS	0.00	0	0.0
3/13/2001 23:23	C:\CHEM\Rush.i\R010312.b	RUSH0073.D	1311-5111MS	THPFOS	5.48	956166	254	PFOS	5.69	4711542	205.6
3/13/2001 23:34	C:\CHEM\Rush.i\R010312.b	RUSH0074.D	1311-5112	THPFOS	5.48	1126349	254	PFOS	5.69	1945796	62.4
3/13/2001 23:45	C:\CHEM\Rush.i\R010312.b	RUSH0075.D	1311-5113	THPFOS	5.48	1133593	254	PFOS	5.69	1923182	61.1
3/13/2001 23:57	C:\CHEM\Rush.i\R010312.b	RUSH0076.D	1311-5114	THPFOS	5.48	1050097	254	PFOS	5.69	1911701	66.1
3/14/2001 0:08	C:\CHEM\Rush.i\R010312.b	RUSH0077.D	1311-5114MS	THPFOS	5.48	913903	254	PFOS	5.69	5785268	277.7
3/14/2001 0:20	C:\CHEM\Rush.i\R010312.b	RUSH0078.D	1311-5115	THPFOS	5.47	1051871	254	PFOS	5.68	7556059	324.3
3/14/2001 0:31	C:\CHEM\Rush.i\R010312.b	RUSH0079.D	1311-5116	THPFOS	5.48	1005648	254	PFOS	5.69	7453080	337.1
3/14/2001 0:42	C:\CHEM\Rush.i\R010312.b	RUSH0080.D	1311-5117	THPFOS	5.47	1064613	254	PFOS	5.68	7243851	303.4
~~3/14/2001 0:54~~	~~C:\CHEM\Rush.i\R010312.b~~	~~RUSH0081.D~~	~~1311-5117MS~~	~~THPFOS~~	~~5.48~~	~~889295~~	~~254~~	~~PFOS~~	~~5.68~~	~~16546728~~	~~666.8~~
3/14/2001 1:50	C:\CHEM\Rush.i\R010312.b	RUSH0086.D	1311-5118	THPFOS	5.48	1069400	254	PFOS	5.69	5158635	200.5
3/14/2001 2:02	C:\CHEM\Rush.i\R010312.b	RUSH0087.D	1311-5119	THPFOS	5.48	1071246	254	PFOS	5.69	4662505	177.7
3/14/2001 2:13	C:\CHEM\Rush.i\R010312.b	RUSH0088.D	1311-5120	THPFOS	5.47	1053796	254	PFOS	5.68	5171543	204.6
3/14/2001 2:25	C:\CHEM\Rush.i\R010312.b	RUSH0089.D	1311-5120MS	THPFOS	5.47	906343	254	PFOS	5.68	8600968	460.9
3/14/2001 2:36	C:\CHEM\Rush.i\R010312.b	RUSH0090.D	1311-5019-S2	THPFOS	5.47	1068914	254	PFOS	5.68	237607	5.2
3/14/2001 2:47	C:\CHEM\Rush.i\R010312.b	RUSH0091.D	1311-5020	THPFOS	5.47	1035621	254	PFOS	0.00	0	0.0
3/14/2001 2:59	C:\CHEM\Rush.i\R010312.b	RUSH0092.D	1311-5021	THPFOS	5.46	1058784	254	PFOS	0.00	0	0.0
3/14/2001 3:10	C:\CHEM\Rush.i\R010312.b	RUSH0093.D	1311-5021MS	THPFOS	5.46	908983	254	PFOS	5.67	4336124	197.9
3/14/2001 3:21	C:\CHEM\Rush.i\R010312.b	RUSH0094.D	1311-5022	THPFOS	5.48	1047722	254	PFOS	5.69	413339	11.4
3/14/2001 3:33	C:\CHEM\Rush.i\R010312.b	RUSH0095.D	1311-5023	THPFOS	5.47	1044074	254	PFOS	5.68	390331	10.7
3/14/2001 4:29	C:\CHEM\Rush.i\R010312.b	RUSH0100.D	1311-5024	THPFOS	5.47	1027244	254	PFOS	5.69	420991	12.0
3/14/2001 4:41	C:\CHEM\Rush.i\R010312.b	RUSH0101.D	1311-5024MS	THPFOS	5.47	900913	254	PFOS	5.68	4492622	208.5
3/14/2001 4:52	C:\CHEM\Rush.i\R010312.b	RUSH0102.D	1311-5025	THPFOS	5.46	1034605	254	PFOS	5.68	862953	27.7
3/14/2001 5:04	C:\CHEM\Rush.i\R010312.b	RUSH0103.D	1311-5026	THPFOS	5.47	1024646	254	PFOS	5.68	889216	28.9
3/14/2001 5:15	C:\CHEM\Rush.i\R010312.b	RUSH0104.D	1311-5027	THPFOS	5.46	1017504	254	PFOS	5.68	730970	23.3
3/14/2001 5:26	C:\CHEM\Rush.i\R010312.b	RUSH0105.D	1311-5027MS	THPFOS	5.48	879952	254	PFOS	5.69	4918144	238.9
3/14/2001 5:38	C:\CHEM\Rush.i\R010312.b	RUSH0106.D	1311-5028	THPFOS	5.49	997963	254	PFOS	5.70	1564024	56.0
3/14/2001 5:49	C:\CHEM\Rush.i\R010312.b	RUSH0107.D	1311-5029	THPFOS	5.48	1030844	254	PFOS	5.69	970831	31.7
3/14/2001 6:00	C:\CHEM\Rush.i\R010312.b	RUSH0108.D	1311-5030	THPFOS	5.47	1022445	254	PFOS	5.69	1650112	57.8
3/14/2001 6:12	C:\CHEM\Rush.i\R010312.b	RUSH0109.D	1311-5030MS	THPFOS	5.48	879426	254	PFOS	5.70	5622153	281.1
3/14/2001 7:08	C:\CHEM\Rush.i\R010312.b	RUSH0114.D	1311-5031	THPFOS	5.46	1025535	254	PFOS	5.68	1856815	65.7
3/14/2001 7:20	C:\CHEM\Rush.i\R010312.b	RUSH0115.D	1311-5032	THPFOS	5.47	1025203	254	PFOS	5.68	1884859	66.9
3/14/2001 7:31	C:\CHEM\Rush.i\R010312.b	RUSH0116.D	1311-5033	THPFOS	5.47	1029469	254	PFOS	5.68	2002764	71.2
3/14/2001 7:43	C:\CHEM\Rush.i\R010312.b	RUSH0117.D	1311-5033MS	THPFOS	5.47	880742	254	PFOS	5.69	5840312	293.9
3/14/2001 7:54	C:\CHEM\Rush.i\R010312.b	RUSH0118.D	1311-5034	THPFOS	5.47	1023217	254	PFOS	5.68	3730551	144.7
3/14/2001 8:05	C:\CHEM\Rush.i\R010312.b	RUSH0119.D	1311-5035	THPFOS	5.47	1012932	254	PFOS	5.68	5585758	235.1
3/14/2001 8:17	C:\CHEM\Rush.i\R010312.b	RUSH0120.D	1311-5036	THPFOS	5.47	1026080	254	PFOS	5.68	4711539	189.2
3/14/2001 8:28	C:\CHEM\Rush.i\R010312.b	RUSH0121.D	1311-5036MS	THPFOS	5.47	860064	254	PFOS	5.68	7996407	448.9
3/14/2001 8:39	C:\CHEM\Rush.i\R010312.b	RUSH0122.D	1311-5055	THPFOS	5.47	987998	254	PFOS	5.68	395287	11.6
3/14/2001 8:51	C:\CHEM\Rush.i\R010312.b	RUSH0123.D	1311-5056	THPFOS	5.47	968034	254	PFOS	5.68	166967	3.4
3/14/2001 9:48	C:\CHEM\Rush.i\R010312.b	RUSH0128.D	1311-5057	THPFOS	5.48	991221	254	PFOS	0.00	0	0.0
3/14/2001 9:59	C:\CHEM\Rush.i\R010312.b	RUSH0129.D	1311-5057MS	THPFOS	5.48	856978	254	PFOS	5.69	4243033	206.8
3/14/2001 10:10	C:\CHEM\Rush.i\R010312.b	RUSH0130.D	1311-5058	THPFOS	5.48	997688	254	PFOS	5.69	380042	10.9
3/14/2001 10:22	C:\CHEM\Rush.i\R010312.b	RUSH0131.D	1311-5059	THPFOS	5.47	958286	254	PFOS	5.69	391761	11.9
3/14/2001 10:33	C:\CHEM\Rush.i\R010312.b	RUSH0132.D	1311-5060	THPFOS	5.47	975732	254	PFOS	5.68	847418	29.0
3/14/2001 10:44	C:\CHEM\Rush.i\R010312.b	RUSH0133.D	1311-5060MS	THPFOS	5.46	840001	254	PFOS	5.68	4805368	245.7
3/14/2001 10:56	C:\CHEM\Rush.i\R010312.b	RUSH0134.D	1311-5061	THPFOS	5.47	967423	254	PFOS	5.68	1987989	75.7

** Lined out sample points are above the calibration curve.

Batch Sample List: MeOH Blanks
Acquistion Instrument/Sequence: **Rush / R010312**
Date/Analyst of Reprocessing: **27-28 Mar 01 / MLA**
Batch Method: **R010312.m**
Quantitation Range: **5 to 501 ng/mL, Quadratic fit, Internal Standard Quant.**

Inj Date	Batch	SampType	File	Sample Name	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount
3/13/2001 12:13	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0014.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.76	38880	0
3/13/2001 12:25	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0015.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.69	28954	0
3/13/2001 14:52	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0028.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.74	39944	0
3/13/2001 15:03	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0029.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.67	31045	0
3/13/2001 17:31	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0042.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.68	30703	0
3/13/2001 17:42	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0043.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.66	26910	0
3/13/2001 20:10	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0056.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.70	71679	0
3/13/2001 20:21	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0057.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.70	67134	0
3/13/2001 22:49	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0070.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.70	72663	0
3/13/2001 23:00	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0071.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.69	67597	0
3/14/2001 1:28	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0084.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.68	72910	0
3/14/2001 1:39	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0085.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.64	27715	0
3/14/2001 4:07	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0098.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.62	30881	0
3/14/2001 4:18	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0099.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.63	26667	0
3/14/2001 6:46	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0112.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.63	29144	0
3/14/2001 6:57	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0113.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.64	26584	0
3/14/2001 9:25	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0126.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.64	31899	0
3/14/2001 9:36	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0127.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.64	27859	0
3/14/2001 11:30	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0137.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.64	29497	0
3/14/2001 11:41	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0138.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.63	25940	0
3/14/2001 14:09	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0151.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.70	41235	0
3/14/2001 14:20	C:\CHEM\Rush.i\R010312.b	SAMPLE	RUSH0152.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.63	31551	0

3M Environmental Laboratory

Kd 3-20-01 p.1694

Internal Standard Quant, Reprocessing method: H010222t.m, calibration standards 5-250 ng/mL.
2.5 ngPFOS/mL standard did not meet accuracy requirments, 500, 750 and 1000 ng/mL standards excluded to better fit the data.
Quadratic curve fit.

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	% Theoretical
2/22/01 20:51	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0022.D	00002-104-01	Std amt (ng/mL)	THPFOS	4.945	882637	249.3	PFOS	5.169	87135	4.2	
2/22/01 21:02	D:\chem\Hillary.i\H010222.b	CALIB_1	HILL0023.D	00002-104-02	2.5	THPFOS	4.938	883313	249.3	PFOS	5.162	71607	3.4	X
2/22/01 21:13	D:\chem\Hillary.i\H010222.b	CALIB_2	HILL0024.D	00002-104-03	5	THPFOS	4.945	890555	249.3	PFOS	5.169	130540	6.2	123.1%
2/22/01 21:24	D:\chem\Hillary.i\H010222.b	CALIB_3	HILL0025.D	00002-104-04	10	THPFOS	4.945	879564	249.3	PFOS	5.169	254321	12.1	120.7%
2/22/01 21:35	D:\chem\Hillary.i\H010222.b	CALIB_4	HILL0026.D	00002-104-05	25	THPFOS	4.945	886135	249.3	PFOS	5.169	527419	24.8	99.1%
2/22/01 21:46	D:\chem\Hillary.i\H010222.b	CALIB_5	HILL0027.D	00002-104-06	40	THPFOS	4.938	877054	249.3	PFOS	5.162	838037	39.7	99.3%
2/22/01 21:58	D:\chem\Hillary.i\H010222.b	CALIB_6	HILL0028.D	00002-104-07	50	THPFOS	4.944	863584	249.3	PFOS	5.168	1094896	52.7	105.4%
2/22/01 22:09	D:\chem\Hillary.i\H010222.b	CALIB_7	HILL0029.D	00002-104-08	75	THPFOS	4.937	863923	249.3	PFOS	5.161	1627972	78.3	104.3%
2/22/01 22:20	D:\chem\Hillary.i\H010222.b	CALIB_8	HILL0030.D	00002-104-09	100	THPFOS	4.937	861128	249.3	PFOS	5.162	2166581	104.4	104.4%
2/22/01 22:31	D:\chem\Hillary.i\H010222.b	CALIB_9	HILL0031.D	00002-104-10	250	THPFOS	4.945	819727	249.3	PFOS	5.169	5046746	255.1	102.1%
2/22/01 22:42	D:\chem\Hillary.i\H010222.b	CALIB_10	HILL0032.D	00002-104-11	500	THPFOS	4.932	777086	249.3	PFOS	5.156	9079135	483.2	X
2/22/01 22:53	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0033.D	00002-104-12	750	THPFOS	4.905	727981	249.3	PFOS	5.171	12908429	731.9	X
2/22/01 23:04	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0034.D	00002-104-13	1000	THPFOS	4.946	725193	249.3	PFOS	5.163	16080347	913.8	
2/23/01 1:29	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0047.D	00002-104-03	5	THPFOS	4.944	938494	249.3	PFOS	5.168	128463	5.8	115.1%
2/23/01 1:40	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0048.D	00002-104-10	250	THPFOS	4.928	843674	249.3	PFOS	5.153	5084843	249.8	99.9%
2/23/01 4:05	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0061.D	00002-104-03	5	THPFOS	4.937	954179	249.3	PFOS	5.154	130987	5.8	115.4%
2/23/01 4:16	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0062.D	00002-104-10	250	THPFOS	4.938	843825	249.3	PFOS	5.162	5117167	251.3	100.5%
2/23/01 6:41	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0075.D	00002-104-03	5	THPFOS	4.903	955094	249.3	PFOS	5.155	124712	5.5	109.8%
2/23/01 6:52	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0076.D	00002-104-10	250	THPFOS	4.934	854940	249.3	PFOS	5.151	5115342	248.0	99.2%
2/23/01 9:17	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0089.D	00002-104-03	5	THPFOS	4.933	972449	249.3	PFOS	5.157	128458	5.6	111.1%
2/23/01 9:28	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0090.D	00002-104-10	250	THPFOS	4.904	846048	249.3	PFOS	5.163	5100493	249.8	99.9%
2/23/01 11:53	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0103.D	00002-104-03	5	THPFOS	4.921	950054	249.3	PFOS	5.145	126306	5.6	111.8%
2/23/01 12:04	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0104.D	00002-104-10	250	THPFOS	4.914	841012	249.3	PFOS	5.131	5001460	246.5	98.6%
2/23/01 14:30	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0117.D	00002-104-03	5	THPFOS	4.93	986760	249.3	PFOS	5.154	127270	5.4	108.5%
2/23/01 14:41	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0118.D	00002-104-10	250	THPFOS	4.818	843661	249.3	PFOS	5.147	5032612	247.2	98.9%
2/23/01 16:44	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0129.D	00002-104-03	5	THPFOS	4.91	965275	249.3	PFOS	5.135	123647	5.4	107.8%
2/23/01 16:55	D:\chem\Hillary.i\H010222.b	CCALIB_1	HILL0130.D	00002-104-10	250	THPFOS	4.909	849853	249.3	PFOS	5.134	4974770	242.6	97.0%
2/23/01 17:28	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0133.D	00002-104-01	(0 Std)	THPFOS	4.909	960603	249.3	PFOS	5.133	80947	3.6	
2/23/01 17:39	D:\chem\Hillary.i\H010222.b	CALIB_11	HILL0134.D	00002-104-02	2.5	THPFOS	4.917	970213	249.3	PFOS	5.134	70306	3.1	X
2/23/01 17:50	D:\chem\Hillary.i\H010222.b	CALIB_12	HILL0135.D	00002-104-03	5	THPFOS	4.9	975322	249.3	PFOS	5.124	123635	5.3	106.7%
2/23/01 18:02	D:\chem\Hillary.i\H010222.b	CALIB_13	HILL0136.D	00002-104-04	10	THPFOS	4.897	962803	249.3	PFOS	5.121	246660	10.7	107.1%
2/23/01 18:13	D:\chem\Hillary.i\H010222.b	CALIB_14	HILL0137.D	00002-104-05	25	THPFOS	4.902	955202	249.3	PFOS	5.126	509141	22.2	88.8%
2/23/01 18:24	D:\chem\Hillary.i\H010222.b	CALIB_15	HILL0138.D	00002-104-06	40	THPFOS	4.902	931719	249.3	PFOS	5.127	809392	36.1	90.3%
2/23/01 18:35	D:\chem\Hillary.i\H010222.b	CALIB_16	HILL0139.D	00002-104-07	50	THPFOS	4.91	913224	249.3	PFOS	5.134	1075245	48.9	97.9%
2/23/01 18:46	D:\chem\Hillary.i\H010222.b	CALIB_17	HILL0140.D	00002-104-08	75	THPFOS	4.902	908508	249.3	PFOS	5.127	1576634	72.1	96.1%
2/23/01 18:57	D:\chem\Hillary.i\H010222.b	CALIB_18	HILL0141.D	00002-104-09	100	THPFOS	4.903	891910	249.3	PFOS	5.113	2094348	97.5	97.5%
2/23/01 19:08	D:\chem\Hillary.i\H010222.b	CALIB_19	HILL0142.D	00002-104-10	250	THPFOS	4.902	835096	249.3	PFOS	5.119	4914708	243.9	97.6%
2/23/01 19:20	D:\chem\Hillary.i\H010222.b	CALIB_20	HILL0143.D	00002-104-11	500	THPFOS	4.902	767261	249.3	PFOS	5.126	8822276	475.6	95.1%
2/23/01 19:31	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0144.D	00002-104-12	750	THPFOS	4.903	726914	249.3	PFOS	5.127	12478371	708.7	X
2/23/01 19:42	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0145.D	00002-104-13	1000	THPFOS	4.904	710125	249.3	PFOS	5.128	15773542	915.4	X

QC IS range (+/- 30% average):
1140493 +30%:
614112 -30%:

Average: 877302
Std Dev: 75938
%RSD: 8.7%

Internal Standard Quant, Reprocessing method: H010222t.m, calibration standards 5-250 ng/mL.
2.5 ngPFOS/mL standard did not meet accuracy requirments, 500, 750 and 1000 ng/mL standards excluded to better fit the data.
Quadratic curve fit.

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	% Theoretical
2/22/01 23:38	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0037.D	1311-4001-S1		THPFOS	4.943	944393	249.3	PFOS	0	0	0.0	
2/22/01 23:49	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0038.D	1311-4002-S1		THPFOS	4.931	963890	249.3	PFOS	0	0	0.0	
2/23/01 0:00	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0039.D	1311-4003-S1		THPFOS	4.944	942003	249.3	PFOS	0	0	0.0	
2/23/01 0:11	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0040.D	1311-4003MS-S1		THPFOS	4.937	830932	249.3	PFOS	5.161	4102327	204.7	
2/23/01 0:22	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0041.D	1311-4004-S1		THPFOS	4.939	945739	249.3	PFOS	0	0	0.0	
2/23/01 0:33	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0042.D	1311-4005-S1		THPFOS	4.937	932519	249.3	PFOS	0	0	0.0	
2/23/01 0:45	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0043.D	1311-4006-S1		THPFOS	4.937	933232	249.3	PFOS	0	0	0.0	
2/23/01 0:56	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0044.D	1311-4006MS-S1		THPFOS	4.929	816057	249.3	PFOS	5.153	4020982	204.3	
2/23/01 1:07	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0045.D	1311-4007-S1		THPFOS	4.937	944645	249.3	PFOS	5.161	1164609	51.2	
2/23/01 1:18	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0046.D	1311-4008-S1		THPFOS	4.938	933140	249.3	PFOS	5.162	1239235	55.2	
2/23/01 2:14	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0051.D	1311-4009-S1		THPFOS	4.939	965150	249.3	PFOS	5.17	1999524	86.0	
2/23/01 2:25	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0052.D	1311-4009MS-S1		THPFOS	4.93	833273	249.3	PFOS	5.154	5149900	256.1	
2/23/01 2:36	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0053.D	1311-4010-S1		THPFOS	4.937	971260	249.3	PFOS	5.161	1233408	52.8	
2/23/01 2:47	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0054.D	1311-4011-S1		THPFOS	4.936	963096	249.3	PFOS	5.16	1214963	52.4	
2/23/01 2:58	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0055.D	1311-4012-S1		THPFOS	4.935	966343	249.3	PFOS	5.16	1183400	50.9	
2/23/01 3:09	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0056.D	1311-4012MS-S1		THPFOS	4.931	839415	249.3	PFOS	5.155	5007271	247.2	
2/23/01 3:20	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0057.D	1311-4013-S1		THPFOS	4.929	971971	249.3	PFOS	5.154	1195984	51.1	
2/23/01 3:32	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0058.D	1311-4014-S1		THPFOS	4.936	978257	249.3	PFOS	5.16	1232516	52.4	
2/23/01 3:43	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0059.D	1311-4015-S1		THPFOS	4.937	958983	249.3	PFOS	5.162	1212915	52.6	
2/23/01 3:54	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0060.D	1311-4015MS-S1		THPFOS	4.936	831850	249.3	PFOS	5.162	5041035	251.1	
2/23/01 4:50	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0065.D	1311-4016-S1		THPFOS	4.93	1012423	249.3	PFOS	5.154	1263565	51.9	
2/23/01 5:01	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0066.D	1311-4017-S1		THPFOS	4.93	1057231	249.3	PFOS	5.154	1276111	50.2	
2/23/01 5:12	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0067.D	1311-4018-S1		THPFOS	4.936	1128229	249.3	PFOS	5.16	1396036	51.4	
2/23/01 5:23	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0068.D	1311-4018MS-S1		THPFOS	4.931	879406	249.3	PFOS	5.155	5215525	245.8	
2/23/01 5:34	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0069.D	1311-4019-S1		THPFOS	4.93	994786	249.3	PFOS	5.154	1172949	49.0	
2/23/01 5:45	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0070.D	1311-4020-S1		THPFOS	4.939	1005038	249.3	PFOS	5.163	1226450	50.7	
2/23/01 5:56	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0071.D	1311-4021-S1		THPFOS	4.932	995117	249.3	PFOS	5.156	1202381	50.2	
2/23/01 6:08	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0072.D	1311-4021MS-S1		THPFOS	4.925	855713	249.3	PFOS	5.149	5111162	247.5	
2/23/01 6:19	***D:\chem\Hillary.i\H010222.b***	***SAMPLE***	***HILL0073.D***	***1311-4022-S1***		***THPFOS***	***4.933***	***1145409***	***249.3***	***PFOS***	***5.15***	***1537684***	***55.8***	
2/23/01 6:30	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0074.D	1311-4023-S1		THPFOS	4.931	1017422	249.3	PFOS	5.155	1206313	49.3	
2/23/01 7:26	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0079.D	1311-4024-S1		THPFOS	4.929	996024	249.3	PFOS	5.153	1250887	52.2	
2/23/01 7:37	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0080.D	1311-4024MS-S1		THPFOS	4.937	995047	249.3	PFOS	5.161	5936492	247.3	
2/23/01 7:48	***D:\chem\Hillary.i\H010222.b***	***SAMPLE***	***HILL0081.D***	***1311-4025-S1***		***THPFOS***	***4.947***	***1162201***	***249.3***	***PFOS***	***5.165***	***1453734***	***52.0***	
2/23/01 7:59	***D:\chem\Hillary.i\H010222.b***	***SAMPLE***	***HILL0082.D***	***1311-4026-S1***		***THPFOS***	***4.938***	***1169445***	***249.3***	***PFOS***	***5.162***	***1398064***	***49.7***	
2/23/01 8:10	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0083.D	1311-4027-S1		THPFOS	4.93	1007177	249.3	PFOS	5.162	1265770	52.2	
2/23/01 8:21	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0084.D	1311-4027MS-S1		THPFOS	4.932	949165	249.3	PFOS	5.163	5704109	249.1	
2/23/01 8:32	***D:\chem\Hillary.i\H010222.b***	***SAMPLE***	***HILL0085.D***	***1311-4028-S1***		***THPFOS***	***4.937***	***1167037***	***249.3***	***PFOS***	***5.168***	***1418355***	***50.5***	
2/23/01 8:44	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0086.D	1311-4029-S1		THPFOS	4.929	985447	249.3	PFOS	5.161	1267363	53.4	
2/23/01 8:55	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0087.D	1311-4030-S1		THPFOS	4.931	1123074	249.3	PFOS	5.162	1377526	51.0	
2/23/01 9:06	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0088.D	1311-4030MS-S1		THPFOS	4.929	866592	249.3	PFOS	5.16	5191492	248.3	

3M Environmental Laboratory

Internal Standard Quant, Reprocessing method: H010222t.m, calibration standards 5-250 ng/mL.
2.5 ngPFOS/mL standard did not meet accuracy requirments, 500, 750 and 1000 ng/mL standards excluded to better fit the data.
Quadratic curve fit.

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	% Theoretical
2/23/01 10:02	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0093.D	1311-4031-S1		THPFOS	4.925	1015824	249.3	PFOS	0	0	0.0	
2/23/01 10:13	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0094.D	1311-4032-S1		THPFOS	4.923	1079934	249.3	PFOS	0	0	0.0	
2/23/01 10:24	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0095.D	1311-4033-S1		THPFOS	4.93	1055100	249.3	PFOS	0	0	0.0	
2/23/01 10:35	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0096.D	1311-4033MS-S1		THPFOS	4.926	898829	249.3	PFOS	5.15	4355290	200.9	
2/23/01 10:46	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0097.D	1311-4034-S1		THPFOS	4.923	987405	249.3	PFOS	0	0	0.0	
2/23/01 10:57	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0098.D	1311-4035-S1		THPFOS	4.924	1090655	249.3	PFOS	0	0	0.0	
2/23/01 11:09	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0099.D	1311-4036-S1		THPFOS	4.915	1031470	249.3	PFOS	0	0	0.0	
2/23/01 11:20	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0100.D	1311-4036MS-S1		THPFOS	4.918	841990	249.3	PFOS	5.149	4108751	202.3	
2/23/01 11:31	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0101.D	1311-4037-S1		THPFOS	4.922	995964	249.3	PFOS	5.153	876072	36.6	
2/23/01 11:42	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0102.D	1311-4038-S1		THPFOS	4.922	992751	249.3	PFOS	5.153	788043	33.0	
2/23/01 12:38	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0107.D	1311-4039-S1		THPFOS	4.918	985052	249.3	PFOS	5.142	683545	28.9	
2/23/01 12:49	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0108.D	1311-4039MS-S1		THPFOS	4.915	844071	249.3	PFOS	5.139	4577937	224.8	
2/23/01 13:00	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0109.D	1311-4040-S1		THPFOS	4.91	990932	249.3	PFOS	5.141	277725	11.7	
2/23/01 13:12	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0110.D	1311-4041-S1		THPFOS	4.917	986341	249.3	PFOS	5.141	246166	10.4	
2/23/01 13:23	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0111.D	1311-4042-S1		THPFOS	4.908	982392	249.3	PFOS	5.139	265448	11.3	
2/23/01 13:34	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0112.D	1311-4042MS-S1		THPFOS	4.915	873132	249.3	PFOS	5.146	4439371	210.8	
2/23/01 13:45	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0113.D	1311-4043-S1		THPFOS	4.914	984852	249.3	PFOS	5.145	269994	11.5	
2/23/01 13:56	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0114.D	1311-4044-S1		THPFOS	4.925	999207	249.3	PFOS	5.149	236262	9.9	
2/23/01 14:07	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0115.D	1311-4045-S1		THPFOS	4.922	997394	249.3	PFOS	5.147	242527	10.2	
2/23/01 14:18	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0116.D	1311-4045MS-S1		THPFOS	4.923	861434	249.3	PFOS	5.154	4358791	209.8	
2/23/01 15:14	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0121.D	1311-4046-S1		THPFOS	4.923	1017804	249.3	PFOS	5.147	330798	13.6	
2/23/01 15:25	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0122.D	1311-4047-S1		THPFOS	4.92	993010	249.3	PFOS	5.144	266017	11.2	
2/23/01 15:37	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0123.D	1311-4048-S1		THPFOS	4.923	1007737	249.3	PFOS	5.148	312638	12.9	
2/23/01 15:48	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0124.D	1311-4048MS-S1		THPFOS	4.91	853140	249.3	PFOS	5.134	4357808	211.8	
2/23/01 15:59	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0125.D	1311-4049-S1		THPFOS	4.916	986831	249.3	PFOS	5.14	223688	9.5	
2/23/01 16:10	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0126.D	1311-4050-S1		THPFOS	4.91	979691	249.3	PFOS	5.141	203407	8.7	
2/23/01 16:21	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0127.D	1311-4051-S1		THPFOS	4.915	959926	249.3	PFOS	5.139	237833	10.4	
2/23/01 16:32	D:\chem\Hillary.i\H010222.b	SAMPLE	HILL0128.D	1311-4051MS-S1		THPFOS	4.911	849190	249.3	PFOS	5.135	4290735	209.5	

Average: 972356
Std Dev: 85032
%RSD: 8.7%

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001207
Last modified: Mon Dec 11 09:05:24 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001207
Last modified: Mon Dec 11 09:10:27 2000
Job Code:

Printed: Mon Dec 11 09:23:38 2000

Compound 1: PFOS (499>99), Func 1

#	Name	study no	Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
1	s001207_001	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.080	92	0.00		bb		
2	s001207_002	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		7.082	50144			bbI		
3	s001207_003	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		7.079	46601			bbI		
4	s001207_004	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.092	364	0.00		bb		
5	s001207_005	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.091	102	0.00		bb		
6	s001207_006	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		7.092	137	0.00		bb		
7	s001207_007	E00-1311	2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Analyte		7.080	621	0.00	-100	bb		
8	s001207_008	E00-1311	5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Analyte		7.094	910	0.00	-100	bb		
9	s001207_009	E00-1311	10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Analyte		7.093	1561	0.00	-100	bb		
10	s001207_010	E00-1311	25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Analyte		7.082	3236	14.34	-43	bb		
11	s001207_011	E00-1311	40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Analyte		7.082	5034	33.17	-17	bb		
12	s001207_012	E00-1311	50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Analyte		7.092	5993	48.19	-4	bb		
13	s001207_013	E00-1311	75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Analyte		7.089	8189	86.02	15	bb		
14	s001207_014	E00-1311	100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Analyte		7.092	9927	115.03	15	bb		
15	s001207_015	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Analyte		7.082	18824	269.69	8	bb		
16	s001207_016	E00-1311	500.9 ppb PFOS 00002-86-11 Aliq. 11-27-00 MLA	Analyte		7.079	29260	493.79	-1	bb		
17	s001207_017	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		7.079	42301			bbI		
18	s001207_018	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.101	262	0.00		bb		
19	s001207_019	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.091	123	0.00		bb		
20	s001207_020	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.089	78	0.00		bb		
21	s001207_021	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		7.079	117	0.00		bb		
22	s001207_022	E00-1311	2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Standard	2.50	7.080	534	0.00	-100	bbX		
23	s001207_023	E00-1311	5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Standard	5.00	7.093	805	0.00	-100	bbX		
24	s001207_024	E00-1311	10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Standard	10.00	7.093	1401	0.00	-100	bbX		
25	s001207_025	E00-1311	25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Standard	25.00	7.092	3018	12.07	-52	bb		
26	s001207_026	E00-1311	40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Standard	40.00	7.094	4640	34.78	-13	bb		
27	s001207_027	E00-1311	50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Standard	50.10	7.080	5547	47.07	-6	bb		
28	s001207_028	E00-1311	75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Standard	75.10	7.080	7437	80.70	7	bb		
29	s001207_029	E00-1311	100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Standard	100.20	7.082	9567	115.72	15	bb		
30	s001207_030	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Standard	250.40	7.081	18376	255.94	2	bb		
31	s001207_031	E00-1311	500.9 ppb PFOS 00002-86-11 Aliq. 11-27-00 MLA	Standard	500.90	7.091	28180	469.41	-6	bb		
32	s001207_032	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Standard	1001.70	7.091	40982	848.70	-15	bb		
33	s001207_033	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	350	0.00		bb		
34	s001207_034	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.091	183	0.00		bb		
35	s001207_035	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.092	77	0.00		bb		
36	s001207_036	E00-1311	10x E00-1311-3001-S1, 0.0mg/L, 0hr, No soil, 12/07/00	Analyte		7.089	71	0.00		bb		
37	s001207_037	E00-1311	10x E00-1311-3002-S1, 0.0mg/L, 0hr, No soil, 12/07/00	Analyte		7.105	25	0.00		bb		
38	s001207_038	E00-1311	10x E00-1311-3003-S1, 0.0mg/L, 0hr, No soil, 12/07/00	Analyte		7.105	25	0.00		bb		
39	s001207_039	E00-1311	10x E00-1311-3003ms-S1 0.0mg/L, 0hr, No soil, 12/07/00	Analyte		7.093	13130	243.94		bb		
40	s001207_040	E00-1311	10x E00-1311-3004-S1 0.5mg/L, 0hr, No soil, 12/07/00	Analyte		7.103	227	0.00		bb		
41	s001207_041	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.093	14771	291.29	16	bb		
42	s001207_042	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.093	86	0.00		bb		
43	s001207_043	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.094	40	0.00		bb		
44	s001207_044	E00-1311	10x E00-1311-3005-S1, 0.5mg/L, 0hr, No soil, 12/07/00	Analyte		7.094	33	0.00		bb		
45	s001207_045	E00-1311	10x E00-1311-3006-S1, 0.5mg/L, 0hr, No soil, 12/07/00	Analyte								
46	s001207_046	E00-1311	10x E00-1311-3006ms-S1,0.5mg/L, 0hr, No soil, 12/07/00	Analyte		7.086	13912	341.05		bb		
47	s001207_047	E00-1311	10x E00-1311-3013-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	Analyte		7.105	67	0.00		bb		
48	s001207_048	E00-1311	10x E00-1311-3014-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	Analyte								
49	s001207_049	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.098	13528	289.20	15	bb		
50	s001207_050	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.109	73	0.00		bb		
51	s001207_051	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.094	67	0.00		bb		
52	s001207_052	E00-1311	10x E00-1311-3015-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	Analyte								
53	s001207_053	E00-1311	10x E00-1311-3015ms-S1,0.0mg/L, 0hr, 1:1clay, 12/07/00	Analyte		7.106	18197	463.23		bb		
54	s001207_054	E00-1311	10x E00-1311-3016-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	Analyte		7.115	97	0.00		bb		
55	s001207_055	E00-1311	10x E00-1311-3017-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	Analyte		7.106	53	0.00		bb		
56	s001207_056	E00-1311	10x E00-1311-3018-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	Analyte		7.105	23	0.00		bb		
57	s001207_057	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.104	13924	272.53	9	bb		
58	s001207_058	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.106	59	0.00		bb		
59	s001207_059	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.103	29	0.00		bb		
60	s001207_060	E00-1311	10x E00-1311-3018ms-S1,0.0mg/L, 0hr, 1:5clay, 12/07/00	Analyte		7.104	14015	151.28		bb		
61	s001207_061	E00-1311	10x E00-1311-3019-S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	Analyte		7.092	18494	398.29		bb		
62	s001207_062	E00-1311	10x E00-1311-3020-S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	Analyte		7.091	17814	449.17		bb		
63	s001207_063	E00-1311	10x E00-1311-3021S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	Analyte		7.106	82	0.00		bb		
64	s001207_064	E00-1311	10x E00-1311-3021ms-S1,0.0mg/L,0hr, 1:25clay, 12/07/00	Analyte		7.106	13420	267.37		bb		
65	s001207_065	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.092	14735	281.45	12	bb		
66	s001207_066	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	64	0.00		bb		
67	s001207_067	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.105	27	0.00		bb		
68	s001207_068	E00-1311	10x E00-1311-3031-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	Analyte		7.093	2906	26.41		bb		
69	s001207_069	E00-1311	10x E00-1311-3032-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	Analyte		7.091	4003	47.72		bb		
70	s001207_070	E00-1311	10x E00-1311-3033-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	Analyte		7.106	6024	74.95		bb		
71	s001207_071	E00-1311	10x E00-1311-3033ms-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	Analyte		7.103	22183	547.85		bb		
72	s001207_072	E00-1311	10x E00-1311-3034-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	Analyte		7.103	17964	366.00		bb		
73	s001207_073	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.106	15658	277.32	11	bb		
74	s001207_074	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.131	55	0.00		bb		
75	s001207_075	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.106	24	0.00		bb		
76	s001207_076	E00-1311	10x E00-1311-3035-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	Analyte		7.103	18087	389.48		bb		
77	s001207_077	E00-1311	10x E00-1311-3036-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	Analyte		7.105	17898	390.30		bb		
78	s001207_078	E00-1311	10x E00-1311-3036ms-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	Analyte		7.105	23398	554.07		bb		
79	s001207_079	E00-1311	10x E00-1311-3037-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	Analyte		7.092	20000	427.38		bb		
80	s001207_080	E00-1311	10x E00-1311-3038-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	Analyte		7.104	20428	401.20		bb		
81	s001207_081	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.100	15260	274.95	10	bb		
82	s001207_082	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.106	72	0.00		bb		
83	s001207_083	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.107	77	0.00		bb		
84	s001207_084	E00-1311	10x E00-1311-3039-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	Analyte		7.092	20562	450.84		bb		
85	s001207_085	E00-1311	10x E00-1311-3039-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	Analyte		7.091	20568	447.93		bb		
86	s001207_086	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.091	137	0.00		bb		
87	s001207_087	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.104	86	0.00		bb		
88	s001207_088	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.092	52	0.00		bb		
89	s001207_089	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		7.101	108	0.00		bb		

SOUP 020199: quantitated and printed by CMC on 12/11/00

CMC 12/11/00

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001207
Last modified: Mon Dec 11 09:05:24 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001207
Last modified: Mon Dec 11 09:10:27 2000
Job Code:

Printed: Mon Dec 11 09:23:38 2000

Compound 1: PFOS (499>99), func 1

#	Name	study no	Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
90	s001207_090	E00-1311	2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Standard	2.50	7.091	419	0.00	-100	bbX		
91	s001207_091	E00-1311	5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Standard	5.00	7.093	621	0.00	-100	bbX		
92	s001207_092	E00-1311	10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Standard	10.00	7.103	1098	0.00	-100	bbX		
93	s001207_093	E00-1311	25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Standard	25.00	7.093	2371	12.50	-50	bb		
94	s001207_094	E00-1311	40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Standard	40.00	7.092	3561	34.53	-14	bb		
95	s001207_095	E00-1311	50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Standard	50.10	7.093	4481	49.25	-2	bb		
96	s001207_096	E00-1311	75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Standard	75.10	7.093	5972	82.10	9	bb		
97	s001207_097	E00-1311	100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Standard	100.20	7.078	7587	112.16	12	bb		
98	s001207_098	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Standard	250.40	7.080	14437	264.22	6	bb		
99	s001207_099	E00-1311	500.9 ppb PFOS 00002-86-11 Aliq. 11-27-00 MLA	Standard	500.90	7.094	21888	484.43	-3	bb		
100	s001207_100	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Standard	1001.70	7.091	33270			bbI		
101	s001207_101	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.094	188	0.00		bb		
102	s001207_102	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.102	44	0.00		bb		
103	s001207_103	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.093	44	0.00		bb		
104	s001207_104	E00-1311	10x E00-1311-3040-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	Analyte		7.092	8077	144.29		bb		
105	s001207_105	E00-1311	10x E00-1311-3041-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	Analyte		7.078	6920	98.63		bb		
106	s001207_106	E00-1311	10x E00-1311-3042-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	Analyte		7.081	5280	68.87		bb		
107	s001207_107	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.091	14240	282.98	13	bb		
108	s001207_108	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.090	55	0.00		bb		
109	s001207_109	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.093	42	0.00		bb		
110	s001207_110	E00-1311	10x E00-1311-3042ms-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	Analyte		7.092	14422	250.89		bb		
111	s001207_111	E00-1311	10x E00-1311-3043-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	Analyte		7.091	1672	0.00		bb		
112	s001207_112	E00-1311	10x E00-1311-3044-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	Analyte		7.091	8831	155.70		bb		
113	s001207_113	E00-1311	10x E00-1311-3045-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	Analyte		7.088	8354	140.92		bb		
114	s001207_114	E00-1311	10x E00-1311-3045ms-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	Analyte		7.081	15956	351.48		bb		
115	s001207_115	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.093	14525	278.75	11	bb		
116	s001207_116	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.101	59	0.00		bb		
117	s001207_117	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.079	30	0.00		bb		
118	s001207_118	E00-1311	10x E00-1311-3046-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	Analyte		7.091	15297	317.10		bb		
119	s001207_119	E00-1311	10x E00-1311-3047-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	Analyte		7.093	15847	318.56		bb		
120	s001207_120	E00-1311	10x E00-1311-3048-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	Analyte		7.092	15684	326.30		bb		
121	s001207_121	E00-1311	10x E00-1311-3048ms-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	Analyte		7.078	20930	515.02		bb		
122	s001207_122	E00-1311	10x E00-1311-3049-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	Analyte		7.092	7184	113.88		bb		
123	s001207_123	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.091	14302	266.08	6	bb		
124	s001207_124	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.103	63	0.00		bb		
125	s001207_125	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.094	44	0.00		bb		
126	s001207_126	E00-1311	10x E00-1311-3050-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	Analyte		7.092	5740	88.39		bb		
127	s001207_127	E00-1311	10x E00-1311-3051-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	Analyte		7.106	6657	92.13		bb		
128	s001207_128	E00-1311	10x E00-1311-3051ms-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	Analyte		7.104	20690	431.57		bb		
129	s001207_129	E00-1311	10x E00-1311-3052-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	Analyte		7.092	7617	126.40		bb		
130	s001207_130	E00-1311	10x E00-1311-3053-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	Analyte		7.091	7312	113.16		bb		
131	s001207_131	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.094	15005	273.98	9	bb		
132	s001207_132	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	186	0.00		bb		
133	s001207_133	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	63	0.00		bb		
134	s001207_134	E00-1311	10x E00-1311-3054-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	Analyte		7.103	8406	136.92		bb		
135	s001207_135	E00-1311	10x E00-1311-3054ms-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	Analyte		7.103	16704	333.48		bb		
136	s001207_136	E00-1311	10x E00-1311-3055-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	Analyte		7.103	16616	326.15		bb		
137	s001207_137	E00-1311	10x E00-1311-3056-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	Analyte		7.094	16859	326.21		bb		
138	s001207_138	E00-1311	10x E00-1311-3057-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	Analyte		7.106	17098	319.46		bb		
139	s001207_139	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.105	15814	283.33	13	bb		
140	s001207_140	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.105	113	0.00		bb		
141	s001207_141	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.093	91	0.00		bb		
142	s001207_142	E00-1311	10x E00-1311-3057ms-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	Analyte		7.103	23164	525.54		bb		
143	s001207_143	E00-1311	10x E00-1311-3067-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	Analyte		7.091	7812	119.29		bb		
144	s001207_144	E00-1311	10x E00-1311-3068-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	Analyte		7.106	6696	99.92		bb		
145	s001207_145	E00-1311	10x E00-1311-3069-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	Analyte		7.106	10698	166.04		bb		
146	s001207_146	E00-1311	10x E00-1311-3069ms-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	Analyte		7.091	21240	438.97		bb		
147	s001207_147	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.093	15733	276.31	10	bb		
148	s001207_148	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.103	77	0.00		bb		
149	s001207_149	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.101	36	0.00		bb		
150	s001207_150	E00-1311	10x E00-1311-3070-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	Analyte		7.093	8898	140.62		bb		
151	s001207_151	E00-1311	10x E00-1311-3071-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	Analyte		7.103	9049	136.17		bb		
152	s001207_152	E00-1311	10x E00-1311-3072-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	Analyte		7.093	9463	152.02		bb		
153	s001207_153	E00-1311	10x E00-1311-3072ms-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	Analyte		7.105	17151	373.61		bb		
154	s001207_154	E00-1311	10x E00-1311-3073-S1,0.5mg/L,16hr, 1:25clay, 12/07/00	Analyte		7.091	17176	330.98		bb		
155	s001207_155	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.093	16217	273.69	9	bb		
156	s001207_156	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	71	0.00		bb		
157	s001207_157	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.102	39	0.00		bb		
158	s001207_158	E00-1311	10x E00-1311-3074-S1,0.5mg/L,16hr, 1:25clay, 12/07/00	Analyte		7.092	16614	321.53		bb		
159	s001207_159	E00-1311	10x E00-1311-3075-S1,0.5mg/L,16hr, 1:25clay, 12/07/00	Analyte		7.092	17931	346.78		bb		
160	s001207_160	E00-1311	10x E00-1311-3075ms-S1,0.5mg/L,16hr,1:25clay, 12/07/00	Analyte		7.094	23217	518.38		bb		
161	s001207_161	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.092	16363	279.58	12	bb		
162	s001207_162	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	87	0.00		bb		
163	s001207_163	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.102	61	0.00		bb		
164	s001207_164	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.093	141	0.00		bb		
165	s001207_165	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		7.096	98	0.00		bb		
166	s001207_166	E00-1311	2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Standard	2.50	7.102	410	0.00	-100	bbX		
167	s001207_167	E00-1311	5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Standard	5.00	7.105	646	0.00	-100	bbX		
168	s001207_168	E00-1311	10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Standard	10.00	7.106	1176	0.00	-100	bbX		
169	s001207_169	E00-1311	25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Standard	25.00	7.102	2556	12.38	-50	bb		
170	s001207_170	E00-1311	40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Standard	40.00	7.096	3902	35.11	-12	bb		
171	s001207_171	E00-1311	50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Standard	50.10	7.108	4700	47.40	-5	bb		
172	s001207_172	E00-1311	75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Standard	75.10	7.102	6619	85.13	13	bb		
173	s001207_173	E00-1311	100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Standard	100.20	7.095	8118	114.14	14	bb		
174	s001207_174	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Standard	250.40	7.095	15885	265.03	6	bb		
175	s001207_175	E00-1311	500.9 ppb PFOS 00002-86-11 Aliq. 11-27-00 MLA	Standard	500.90	7.103	24335	492.46	-2	bb		
176	s001207_176	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Standard	1001.70	7.095	36145			bbI		
177	s001207_177	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.105	225	0.00		bb		
178	s001207_178	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.105	130	0.00		bb		

SOUP 020199: quantitated and printed by CMC on 12/11/00

CMC 12/11/00

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001207
Last modified: Mon Dec 11 09:05:24 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001207
Last modified: Mon Dec 11 09:10:27 2000
Job Code:

Printed: Mon Dec 11 09:23:38 2000

Compound 1: PFOS (499>99), func 1

#	Name	study no	Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
179	s001207_179	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.105	211	0.00		bb		

SOUP 020199: quantitated and printed by CMC on 12/11/00

CMC 12/11/00

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001207
Last modified: Mon Dec 11 09:05:24 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001207
Last modified: Mon Dec 11 09:10:27 2000
Job Code:

Printed: Mon Dec 11 09:23:38 2000

Compound 2: THPFOS (427>80), func 2

#	Name	study no	Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
1	s001207_001	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
2	s001207_002	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		6.889	2889	339.35	37	bb		
3	s001207_003	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		6.899	2593	304.55	23	bb		
4	s001207_004	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
5	s001207_005	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
6	s001207_006	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		6.900	3189	374.53	51	bb		
7	s001207_007	E00-1311	2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Analyte		6.900	3064	359.92	45	bb		
8	s001207_008	E00-1311	5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Analyte		6.902	3125	367.01	48	bb		
9	s001207_009	E00-1311	10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Analyte		6.914	2657	312.11	26	bb		
10	s001207_010	E00-1311	25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Analyte		6.903	2457	288.56	16	bb		
11	s001207_011	E00-1311	40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Analyte		6.904	2712	318.54	28	bb		
12	s001207_012	E00-1311	50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Analyte		6.900	2629	308.79	24	bb		
13	s001207_013	E00-1311	75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Analyte		6.898	2467	289.75	17	bb		
14	s001207_014	E00-1311	100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Analyte		6.900	2426	284.94	15	bb		
15	s001207_015	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Analyte		6.903	2401	282.02	13	bb		
16	s001207_016	E00-1311	500.9 ppb PFOS 00002-86-11 Aliq. 11-27-00 MLA	Analyte		6.900	2405	282.49	14	bb		
17	s001207_017	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		6.901	2355	276.59	11	bb		
18	s001207_018	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
19	s001207_019	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
20	s001207_020	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
21	s001207_021	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		6.900	2386	280.31	13	bb		
22	s001207_022	E00-1311	2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Standard	248.60	6.901	2381	279.61	12	bb		
23	s001207_023	E00-1311	5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Standard	248.60	6.901	2451	287.92	16	bb		
24	s001207_024	E00-1311	10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Standard	248.60	6.901	2505	294.22	18	bb		
25	s001207_025	E00-1311	25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Standard	248.60	6.900	2411	283.20	14	bb		
26	s001207_026	E00-1311	40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Standard	248.60	6.902	2439	286.50	15	bb		
27	s001207_027	E00-1311	50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Standard	248.60	6.901	2467	289.78	17	bb		
28	s001207_028	E00-1311	75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Standard	248.60	6.901	2342	275.04	11	bb		
29	s001207_029	E00-1311	100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Standard	248.60	6.903	2328	273.39	10	bb		
30	s001207_030	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Standard	248.60	6.902	2440	286.55	15	bb		
31	s001207_031	E00-1311	500.9 ppb PFOS 00002-86-11 Aliq. 11-27-00 MLA	Standard	248.60	6.912	2397	281.50	13	bb		
32	s001207_032	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Standard	248.60	6.899	2508	294.56	18	bb		
33	s001207_033	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
34	s001207_034	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
35	s001207_035	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
36	s001207_036	E00-1311	10x E00-1311-3001-S1, 0.0mg/L, 0hr, No soil, 12/07/00	Analyte		6.909	2239	263.04	5	bb		
37	s001207_037	E00-1311	10x E00-1311-3002-S1, 0.0mg/L, 0hr, No soil, 12/07/00	Analyte		6.912	2102	246.94	-1	bb		
38	s001207_038	E00-1311	10x E00-1311-3003-S1, 0.0mg/L, 0hr, No soil, 12/07/00	Analyte		6.913	2149	252.47	1	bb		
39	s001207_039	E00-1311	10x E00-1311-3003ms-S1 0.0mg/L, 0hr, No soil, 12/07/00	Analyte		6.915	1819	213.65	-15	bb		
40	s001207_040	E00-1311	10x E00-1311-3004-S1 0.5mg/L, 0hr, No soil, 12/07/00	Analyte		6.912	2059	241.83	-3	bb		
41	s001207_041	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.913	1777	208.69	-16	bb		
42	s001207_042	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
43	s001207_043	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
44	s001207_044	E00-1311	10x E00-1311-3005-S1, 0.5mg/L, 0hr, No soil, 12/07/00	Analyte		6.914	1163	136.65	-45	bb		
45	s001207_045	E00-1311	10x E00-1311-3006-S1, 0.5mg/L, 0hr, No soil, 12/07/00	Analyte		6.917	1560	183.26	-27	bb		
46	s001207_046	E00-1311	10x E00-1311-3006ms-S1,0.5mg/L, 0hr, No soil, 12/07/00	Analyte		6.907	1495	175.58	-30	bb		
47	s001207_047	E00-1311	10x E00-1311-3013-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	Analyte		6.913	1851	217.42	-13	bb		
48	s001207_048	E00-1311	10x E00-1311-3014-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	Analyte		6.914	1458	171.19	-32	bb		
49	s001207_049	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.907	1636	192.17	-23	bb		
50	s001207_050	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
51	s001207_051	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
52	s001207_052	E00-1311	10x E00-1311-3015-S1, 0.0mg/L, 0hr, 1:1clay, 12/07/00	Analyte		6.914	1766	207.41	-17	bb		
53	s001207_053	E00-1311	10x E00-1311-3015ms-S1,0.0mg/L, 0hr, 1:1clay, 12/07/00	Analyte		6.915	1570	184.45	-26	bb		
54	s001207_054	E00-1311	10x E00-1311-3016-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	Analyte		6.924	1644	193.06	-23	bb		
55	s001207_055	E00-1311	10x E00-1311-3017-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	Analyte		6.913	1719	201.96	-19	bb		
56	s001207_056	E00-1311	10x E00-1311-3018-S1, 0.0mg/L, 0hr, 1:5clay, 12/07/00	Analyte		6.914	1666	195.68	-22	bb		
57	s001207_057	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.912	1762	206.93	-17	bb		
58	s001207_058	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
59	s001207_059	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
60	s001207_060	E00-1311	10x E00-1311-3018ms-S1,0.0mg/L, 0hr, 1:5clay, 12/07/00	Analyte		6.925	2804	329.34	32	bb		
61	s001207_061	E00-1311	10x E00-1311-3019-S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	Analyte		6.913	1774	208.40	-17	bb		
62	s001207_062	E00-1311	10x E00-1311-3020-S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	Analyte		6.912	1570	184.44	-26	bb		
63	s001207_063	E00-1311	10x E00-1311-3021S1,0.0mg/L, 0hr, 1:25clay, 12/07/00	Analyte		6.914	1798	211.13	-16	bb		
64	s001207_064	E00-1311	10x E00-1311-3021ms-S1,0.0mg/L,0hr, 1:25clay, 12/07/00	Analyte		6.926	1733	203.52	-19	bb		
65	s001207_065	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.913	1819	213.68	-14	bb		
66	s001207_066	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
67	s001207_067	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
68	s001207_068	E00-1311	10x E00-1311-3031-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	Analyte		6.914	1756	206.31	-17	bb		
69	s001207_069	E00-1311	10x E00-1311-3032-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	Analyte		6.910	1776	208.60	-17	bb		
70	s001207_070	E00-1311	10x E00-1311-3033-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	Analyte		6.915	2006	235.65	-6	bb		
71	s001207_071	E00-1311	10x E00-1311-3033ms-S1,0.5mg/L, 0hr, 1:1clay, 12/07/00	Analyte		6.924	1714	201.34	-19	bb		
72	s001207_072	E00-1311	10x E00-1311-3034-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	Analyte		6.924	1832	215.21	-14	bb		
73	s001207_073	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.913	1955	229.64	-8	bb		
74	s001207_074	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
75	s001207_075	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
76	s001207_076	E00-1311	10x E00-1311-3035-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	Analyte		6.924	1763	207.11	-17	bb		
77	s001207_077	E00-1311	10x E00-1311-3036-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	Analyte		6.913	1742	204.64	-18	bb		
78	s001207_078	E00-1311	10x E00-1311-3036ms-S1,0.5mg/L,0hr, 1:5clay, 12/07/00	Analyte		6.914	1795	210.87	-16	bb		
79	s001207_079	E00-1311	10x E00-1311-3037-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	Analyte		6.913	1825	214.36	-14	bb		
80	s001207_080	E00-1311	10x E00-1311-3038-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	Analyte		6.925	1950	228.99	-8	bb		
81	s001207_081	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.909	1918	225.26	-9	bb		
82	s001207_082	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
83	s001207_083	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
84	s001207_084	E00-1311	10x E00-1311-3039-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	Analyte		6.913	1808	212.34	-15	bb		
85	s001207_085	E00-1311	10x E00-1311-3039-S1,0.5mg/L,0hr, 1:25clay, 12/07/00	Analyte		6.911	1816	213.36	-15	bb		
86	s001207_086	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
87	s001207_087	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
88	s001207_088	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
89	s001207_089	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		6.910	1949	228.98	-8	bb		

SOUP 020199: quantitated and printed by CMC on 12/11/00

CMC 12/11/00

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001207
Last modified: Mon Dec 11 09:05:24 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001207
Last modified: Mon Dec 11 09:10:27 2000
Job Code:

Printed: Mon Dec 11 09:23:38 2000

Compound 2: THPFOS (427>80), func 2

#	Name	study no Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
90	s001207_090	E00-1311 2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Standard	248.60	6.899	1909	224.21	-10	bb		
91	s001207_091	E00-1311 5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Standard	248.60	6.901	1930	226.74	-9	bb		
92	s001207_092	E00-1311 10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Standard	248.60	6.911	1903	223.57	-10	bb		
93	s001207_093	E00-1311 25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Standard	248.60	6.901	1875	220.27	-11	bb		
94	s001207_094	E00-1311 40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Standard	248.60	6.901	1879	220.74	-11	bb		
95	s001207_095	E00-1311 50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Standard	248.60	6.914	1941	227.93	-8	bb		
96	s001207_096	E00-1311 75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Standard	248.60	6.901	1858	218.26	-12	bb		
97	s001207_097	E00-1311 100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Standard	248.60	6.899	1889	221.85	-11	bb		
98	s001207_098	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Standard	248.60	6.901	1871	219.71	-12	bb		
99	s001207_099	E00-1311 500.9 ppb PFOS 00002-86-11 Aliq. 11-27-00 MLA	Standard	248.60	6.902	1822	214.03	-14	bb		
100	s001207_100	E00-1311 1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Standard	248.60	6.900	1904	223.61	-10	bb		
101	s001207_101	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
102	s001207_102	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
103	s001207_103	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
104	s001207_104	E00-1311 10x E00-1311-3040-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	Analyte		6.912	1675	196.76	-21	bb		
105	s001207_105	E00-1311 10x E00-1311-3041-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	Analyte		6.898	1902	223.44	-11	bb		
106	s001207_106	E00-1311 10x E00-1311-3042-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	Analyte		6.902	1861	218.60	-13	bb		
107	s001207_107	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.899	1751	205.65	-17	bb		
108	s001207_108	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
109	s001207_109	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
110	s001207_110	E00-1311 10x E00-1311-3042ms-S1,0.5mg/L,2hr, 1:1clay, 12/07/00	Analyte		6.901	1955	229.66	-8	bb		
111	s001207_111	E00-1311 10x E00-1311-3043-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	Analyte		6.899	2301	270.21	8	bb		
112	s001207_112	E00-1311 10x E00-1311-3044-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	Analyte		6.912	1728	203.02	-19	bb		
113	s001207_113	E00-1311 10x E00-1311-3045-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	Analyte		6.897	1764	207.18	-17	bb		
114	s001207_114	E00-1311 10x E00-1311-3045ms-S1,0.5mg/L,2hr, 1:5clay, 12/07/00	Analyte		6.901	1677	196.93	-21	bb		
115	s001207_115	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.902	1807	212.19	-15	bb		
116	s001207_116	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
117	s001207_117	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
118	s001207_118	E00-1311 10x E00-1311-3046-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	Analyte		6.900	1735	203.84	-18	bb		
119	s001207_119	E00-1311 10x E00-1311-3047-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	Analyte		6.901	1792	210.44	-16	bb		
120	s001207_120	E00-1311 10x E00-1311-3048-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	Analyte		6.913	1742	204.56	-18	bb		
121	s001207_121	E00-1311 10x E00-1311-3048ms-S1,0.5mg/L,2hr, 1:25clay, 12/07/00	Analyte		6.899	1683	197.65	-21	bb		
122	s001207_122	E00-1311 10x E00-1311-3049-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	Analyte		6.901	1778	208.90	-16	bb		
123	s001207_123	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.900	1843	216.49	-13	bb		
124	s001207_124	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
125	s001207_125	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
126	s001207_126	E00-1311 10x E00-1311-3050-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	Analyte		6.901	1706	200.35	-20	bb		
127	s001207_127	E00-1311 10x E00-1311-3051-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	Analyte		6.914	1921	225.66	-10	bb		
128	s001207_128	E00-1311 10x E00-1311-3051ms-S1,0.5mg/L,4hr, 1:1clay, 12/07/00	Analyte		6.913	1875	220.25	-12	bb		
129	s001207_129	E00-1311 10x E00-1311-3052-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	Analyte		6.901	1745	204.99	-18	bb		
130	s001207_130	E00-1311 10x E00-1311-3053-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	Analyte		6.912	1819	213.63	-15	bb		
131	s001207_131	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.914	1891	222.11	-11	bb		
132	s001207_132	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		6.912	27	3.18		bb		
133	s001207_133	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
134	s001207_134	E00-1311 10x E00-1311-3054-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	Analyte		6.924	1814	213.05	-15	bb		
135	s001207_135	E00-1311 10x E00-1311-3054ms-S1,0.5mg/L,4hr, 1:5clay, 12/07/00	Analyte		6.923	1825	214.36	-14	bb		
136	s001207_136	E00-1311 10x E00-1311-3055-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	Analyte		6.924	1846	216.79	-13	bb		
137	s001207_137	E00-1311 10x E00-1311-3056-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	Analyte		6.915	1872	219.93	-12	bb		
138	s001207_138	E00-1311 10x E00-1311-3057-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	Analyte		6.928	1929	226.57	-9	bb		
139	s001207_139	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.913	1943	228.17	-8	bb		
140	s001207_140	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
141	s001207_141	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
142	s001207_142	E00-1311 10x E00-1311-3057ms-S1,0.5mg/L,4hr, 1:25clay, 12/07/00	Analyte		6.912	1838	215.90	-14	bb		
143	s001207_143	E00-1311 10x E00-1311-3067-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	Analyte		6.912	1869	219.50	-12	bb		
144	s001207_144	E00-1311 10x E00-1311-3068-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	Analyte		6.915	1824	214.19	-14	bb		
145	s001207_145	E00-1311 10x E00-1311-3069-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	Analyte		6.914	1993	234.12	-6	bb		
146	s001207_146	E00-1311 10x E00-1311-3069ms-S1,0.5mg/L,16hr, 1:1clay, 12/07/00	Analyte		6.912	1902	223.44	-11	bb		
147	s001207_147	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.913	1970	231.38	-7	bb		
148	s001207_148	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
149	s001207_149	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
150	s001207_150	E00-1311 10x E00-1311-3070-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	Analyte		6.913	1882	221.02	-12	bb		
151	s001207_151	E00-1311 10x E00-1311-3071-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	Analyte		6.923	1961	230.30	-8	bb		
152	s001207_152	E00-1311 10x E00-1311-3072-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	Analyte		6.914	1886	221.54	-11	bb		
153	s001207_153	E00-1311 10x E00-1311-3072ms-S1,0.5mg/L,16hr, 1:5clay, 12/07/00	Analyte		6.913	1723	202.41	-19	bb		
154	s001207_154	E00-1311 10x E00-1311-3073-S1,0.5mg/L,16hr, 1:25clay, 12/07/00	Analyte		6.911	1887	221.66	-11	bb		
155	s001207_155	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.913	2045	240.24	-3	bb		
156	s001207_156	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
157	s001207_157	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
158	s001207_158	E00-1311 10x E00-1311-3074-S1,0.5mg/L,16hr, 1:25clay, 12/07/00	Analyte		6.912	1865	219.09	-12	bb		
159	s001207_159	E00-1311 10x E00-1311-3075-S1,0.5mg/L,16hr, 1:25clay, 12/07/00	Analyte		6.912	1903	223.51	-11	bb		
160	s001207_160	E00-1311 10x E00-1311-3075ms-S1,0.5mg/L,16hr,1:25clay, 12/07/00	Analyte		6.914	1859	218.32	-13	bb		
161	s001207_161	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.913	2030	238.49	-4	bb		
162	s001207_162	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
163	s001207_163	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
164	s001207_164	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
165	s001207_165	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		6.917	1997	234.52	-6	bb		
166	s001207_166	E00-1311 2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Standard	248.60	6.910	2000	234.91	-6	bb		
167	s001207_167	E00-1311 5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Standard	248.60	6.925	2051	240.91	-3	bb		
168	s001207_168	E00-1311 10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Standard	248.60	6.915	2097	246.28	-1	bb		
169	s001207_169	E00-1311 25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Standard	248.60	6.922	2028	238.15	-4	bb		
170	s001207_170	E00-1311 40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Standard	248.60	6.917	2041	239.78	-4	bb		
171	s001207_171	E00-1311 50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Standard	248.60	6.915	2082	244.53	-2	bb		
172	s001207_172	E00-1311 75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Standard	248.60	6.911	2008	235.89	-5	bb		
173	s001207_173	E00-1311 100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Standard	248.60	6.915	1995	234.34	-6	bb		
174	s001207_174	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Standard	248.60	6.916	2053	241.18	-3	bb		
175	s001207_175	E00-1311 500.9 ppb PFOS 00002-86-11 Aliq. 11-27-00 MLA	Standard	248.60	6.912	2004	235.37	-5	bb		
176	s001207_176	E00-1311 1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Standard	248.60	6.915	2037	239.26	-4	bb		
177	s001207_177	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
178	s001207_178	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								

SOUP 020199: quantitated and printed by CMC on 12/11/00

CMC 12/11/00

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001207
Last modified: Mon Dec 11 09:05:24 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001207
Last modified: Mon Dec 11 09:10:27 2000
Job Code:

Printed: Mon Dec 11 09:23:38 2000

Compound 2: THPFOS (427>80), func 2

#	Name	study no Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Co
179	s001207_179	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								

SOUP 020199: quantitated and printed by CMC on 12/11/00

CMC 12/11/00

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t001215
Last modified: Mon Dec 18 10:45:28 2000
Method: C:\MASSLYNX\Decatur.PRO\MethDB\001215
Last modified: Mon Dec 18 10:50:01 2000
Job Code:

Printed: Mon Dec 18 10:56:20 2000

Compound 1: PFOS(499)

#	Name	SampleList Text	RT	Area	Response	ppm	Flags	%Dev	od	Comment
1	t001215_001	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.481	53206	0.000	0.00	bb			
2	t001215_002	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.371	30800	0.000	0.00	bb			
3	t001215_003	1001.7 ppb PFOS 00002-86-13	6.488	4641528	10770.559	729.75	bb	-27		
4	t001215_004	1001.7 ppb PFOS 00002-86-13	6.489	4640503	10872.952	740.43	bb	-26		
5	t001215_005	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.433	36137	0.000	0.00	bb			
6	t001215_006	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.408	35552	0.000	0.00	bb			
7	t001215_007	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.417	35344	0.000	0.00	bb			
8	t001215_008	0 ppb PFOS 00002-86-01	6.425	39095	99.457	0.00	bb			
9	t001215_009	2.5 ppb PFOS 00002-86-02	6.445	61396	159.598	0.00	bb	-100		
10	t001215_010	5 ppb PFOS 00002-86-03	6.377	77059	200.633	0.00	bb	-100		
11	t001215_011	10 ppb PFOS 00002-86-04	6.496	119454	371.309	7.68	bb	-23		
12	t001215_012	25 ppb PFOS 00002-86-05	6.484	208147	786.844	29.54	bb	18		
13	t001215_013	40 ppb PFOS 00002-86-06	6.417	296693	1031.971	42.60	bb	6		
14	t001215_014	50.1 ppb PFOS 00002-86-07	6.481	386893	1312.849	57.71	bb	15		
15	t001215_015	75.1 ppb PFOS 00002-86-08	6.445	542145	1854.385	87.31	bb	16		
16	t001215_016	100.2 ppb PFOS 00002-86-09	6.200	739832	2414.604	118.62	bb	18		
17	t001215_017	250.4 ppb PFOS 00003-141	6.188	1625157	5012.082	274.48	bb	10		
18	t001215_018	500.9 ppb PFOS 00002-86-12	6.184	2627391	8768.561	545.53	bb	9		
19	t001215_019	1001.7 ppb PFOS 00002-86-13	6.223	4126845	15693.600		bbI			
20	t001215_020	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.172	31200	0.000	0.00	bb			
21	t001215_021	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.228	28732	0.000	0.00	bb			
22	t001215_022	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.240	25271	0.000	0.00	bb			
23	t001215_023	0 ppb PFOS 00002-86-01	6.493	32948	107.336	0.00	bb			
24	t001215_024	2.5 ppb PFOS 00002-86-02	6.360	49820	165.290	0.00	bbX	-100		
25	t001215_025	5 ppb PFOS 00002-86-03	6.438	64675	217.657	0.00	bbX	-100		
26	t001215_026	10 ppb PFOS 00002-86-04	6.492	101190	349.543	6.54	bbX	-35		
27	t001215_027	25 ppb PFOS 00002-86-05	6.485	203395	720.329	26.02	bb	4		
28	t001215_028	40 ppb PFOS 00002-86-06	6.356	284054	939.183	37.64	bb	-6		
29	t001215_029	50.1 ppb PFOS 00002-86-07	6.476	345882	1179.832	50.53	bb	1		
30	t001215_030	75.1 ppb PFOS 00002-86-08	6.485	518826	1802.378	84.44	bb	12		
31	t001215_031	100.2 ppb PFOS 00002-86-09	6.488	638622	2183.075	105.59	bb	5		
32	t001215_032	250.4 ppb PFOS 00003-141	6.489	1490467	5091.336	279.56	bb	12		
33	t001215_033	500.9 ppb PFOS 00002-86-12	6.489	2357038	8220.976	501.26	bb	0		
34	t001215_034	1001.7 ppb PFOS 00002-86-13	6.384	3944487	13555.334	1123.76	bb	12		
35	t001215_035	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.293	24270	0.000	0.00	bb			
36	t001215_036	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.288	23252	0.000	0.00	bb			
37	t001215_037	10x E00-1311-3007	6.456	30587	116.821	0.00	bb			
38	t001215_038	10x E00-1311-3008	6.469	27578	104.562	0.00	bb			
39	t001215_039	10x E00-1311-3009	6.429	25569	94.837	0.00	bb			
40	t001215_040	10x E00-1311-3009ms	6.483	1007052	3974.570	209.90	bb			
41	t001215_041	10x E00-1311-3010	6.450	26288	101.042	0.00	bb			
42	t001215_042	250.4 ppb PFOS 00003-141	6.469	1371544	5035.394	275.97	bb	10		
43	t001215_043	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.357	28127	0.000	0.00	bb			
44	t001215_044	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.242	25682	0.000	0.00	bb			
45	t001215_045	10x E00-1311-3011	6.284	21374	78.074	0.00	bb			
46	t001215_046	10x E00-1311-3012	6.469	25538	97.150	0.00	bb			
47	t001215_047	10x E00-1311-3012ms	6.400	998865	3638.345	189.67	bb			
48	t001215_048	10x E00-1311-3130	6.481	587042	2059.048	98.66	bb			
49	t001215_049	10x E00-1311-3131	6.411	571685	1956.716	92.97	bb			
50	t001215_050	250.4 ppb PFOS 00003-141	6.488	1447645	5035.467	275.98	bb	10		
51	t001215_051	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.443	27552	0.000	0.00	bb			
52	t001215_052	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.237	25476	0.000	0.00	bb			
53	t001215_053	10x E00-1311-3132	6.401	492412	1849.585	87.04	bb			
54	t001215_054	10x E00-1311-3132ms	6.292	1536932	4835.963	263.27	bb			
55	t001215_055	10x E00-1311-3133	6.260	2205944	6828.949	396.95	bb			
56	t001215_056	10x E00-1311-3134	6.486	1406285	4365.327	233.83	bb			
57	t001215_057	10x E00-1311-3135	6.485	1523976	4958.838	271.08	bb			
58	t001215_058	250.4 ppb PFOS 00003-141	6.476	1529689	4997.809	273.57	bb	9		
59	t001215_059	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.445	29026	0.000	0.00	bb			
60	t001215_060	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.245	26218	0.000	0.00	bb			
61	t001215_061	10x E00-1311-3135ms	6.420	2204358	7547.557	449.46	bb			
62	t001215_062	10x E00-1311-3136	6.437	1996143	5741.427	322.07	bb			
63	t001215_063	10x E00-1311-3137	6.361	1996672	6032.791	341.64	bb			
64	t001215_064	10x E00-1311-3138	6.485	1935361	6022.490	340.94	bb			
65	t001215_065	10x E00-1311-3138ms	6.429	2548079	7906.309	476.71	bb			
66	t001215_066	250.4 ppb PFOS 00003-141	6.484	1536839	4764.796	258.78	bb	3		
67	t001215_067	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.453	28963	0.000	0.00	bb			
68	t001215_068	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.360	28028	0.000	0.00	bb			
69	t001215_069	10x E00-1311-3139	6.375	422345	1448.580	65.07	bb			
70	t001215_070	10x E00-1311-3140	6.240	583342	1737.042	80.84	bb			
71	t001215_071	10x E00-1311-3141	6.207	374356	1095.122	45.98	bb			
72	t001215_072	10x E00-1311-3141ms	6.256	1431728	4389.666	235.33	bb			
73	t001215_073	10x E00-1311-3142	6.272	1543781	4605.736	248.78	bb			
74	t001215_074	250.4 ppb PFOS 00003-141	6.473	1488024	4509.151	242.75	bb	-3		
75	t001215_075	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.423	28021	0.000	0.00	bb			
76	t001215_076	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.268	25280	0.000	0.00	bb			
77	t001215_077	10x E00-1311-3143	6.489	1494674	4578.029	247.05	bb			
78	t001215_078	10x E00-1311-3144	6.478	1597102	4918.225	268.50	bb			
79	t001215_079	10x E00-1311-3144ms	6.480	2263636	7136.543	419.10	bb			
80	t001215_080	10x E00-1311-3145	6.478	2027915	6235.222	355.44	bb			
81	t001215_081	10x E00-1311-3146	6.488	1986134	5982.209	338.22	bb			
82	t001215_082	250.4 ppb PFOS 00003-141	6.484	1569815	4638.272	250.82	bb	0		

Quantitated and Printed by CMC on 18 Dec 00, Study E00-1311

CMC 12/18/00

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t001215
Last modified: Mon Dec 18 10:45:28 2000
Method: C:\MASSLYNX\Decatur.PRO\MethDB\001215
Last modified: Mon Dec 18 10:50:01 2000
Job Code:

Printed: Mon Dec 18 10:56:20 2000

Compound 1: PFOS(499)

#	Name	Samplelist Text	RT	Area	Response	ppm	Flags	%Dev	od	Comment
83	t001215_083	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.457	27890	0.000	0.00	bb			
84	t001215_084	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.313	25986	0.000	0.00	bb			
85	t001215_085	10x E00-1311-3147	6.460	2160923	6233.710	355.34	bb			
86	t001215_086	10x E00-1311-3147ms	6.444	2795560	8625.720	533.78	bb			
87	t001215_087	10x E00-1311-3148	6.367	467443	1570.404	71.71	bb			
88	t001215_088	10x E00-1311-3149	6.460	434046	1307.942	57.44	bb			
89	t001215_089	10x E00-1311-3150	6.477	307296	917.941	36.51	bb			
90	t001215_090	250.4 ppb PFOS 00003-141	6.476	1592065	4791.048	260.43	bb	4		
91	t001215_091	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.461	27504	0.000	0.00	bb			
92	t001215_092	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.444	26941	0.000	0.00	bb			
93	t001215_093	10x E00-1311-3150ms	6.416	1372094	4498.274	242.07	bb			
94	t001215_094	10x E00-1311-3151	6.200	1471355	4300.832	229.84	bb			
95	t001215_095	10x E00-1311-3152	6.180	1462737	4422.156	237.34	bb			
96	t001215_096	10x E00-1311-3153	6.193	1400633	4150.190	220.60	bb			
97	t001215_097	10x E00-1311-3153ms	6.224	2166717	7015.362	410.32	bb			
98	t001215_098	250.4 ppb PFOS 00003-141	6.248	1624666	4723.239	256.16	bb	2		
99	t001215_099	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.240	26765	0.000	0.00	bb			
100	t001215_100	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.184	29157	0.000	0.00	bb			
101	t001215_101	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.228	28941	0.000	0.00	bb			
102	t001215_102	0 ppb PFOS 00002-86-01	6.280	27909	81.993	0.00	bb			
103	t001215_103	2.5 ppb PFOS 00002-86-02	6.240	52247	154.323	0.00	bbX	-100		
104	t001215_104	5 ppb PFOS 00002-86-03	6.432	65529	194.992	0.00	bbX	-100		
105	t001215_105	10 ppb PFOS 00002-86-04	6.441	99480	298.037	3.85	bbX	-61		
106	t001215_106	25 ppb PFOS 00002-86-05	6.434	199217	600.598	19.70	bb	-21		
107	t001215_107	40 ppb PFOS 00002-86-06	6.481	299906	914.360	36.32	bb	-9		
108	t001215_108	50.1 ppb PFOS 00002-86-07	6.461	351140	1050.562	43.59	bb	-13		
109	t001215_109	75.1 ppb PFOS 00002-86-08	6.484	531280	1663.308	76.79	bb	2		
110	t001215_110	100.2 ppb PFOS 00002-86-09	6.461	725423	2262.606	110.05	bb	10		
111	t001215_111	250.4 ppb PFOS 00003-141	6.416	1529458	5017.911	274.86	bb	10		
112	t001215_112	500.9 ppb PFOS 00002-86-12	6.480	2508341	7683.917	459.73	bb	-8		
113	t001215_113	1001.7 ppb PFOS 00002-86-13	6.399	4217609	12695.066	967.50	bb	-3		
114	t001215_114	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.461	26339	0.000	0.00	bb			
115	t001215_115	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.428	24228	0.000	0.00	bb			
116	t001215_116	10x E00-1311-3154	6.416	1932000	6231.812	355.21	bb			
117	t001215_117	10x E00-1311-3155	6.328	1937864	5722.890	320.83	bb			
118	t001215_118	10x E00-1311-3156	6.472	1823747	5469.763	304.11	bb			
119	t001215_119	10x E00-1311-3156ms	6.477	2606071	7947.153	479.86	bb			
120	t001215_120	10x E00-1311-3157	6.480	589623	1792.083	83.87	bb			
121	t001215_121	250.4 ppb PFOS 00003-141	6.408	1486525	4383.193	234.93	bb	-6		
122	t001215_122	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.361	23881	0.000	0.00	bb			
123	t001215_123	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.333	23843	0.000	0.00	bb			
124	t001215_124	10x E00-1311-3158	6.381	515994	1728.388	80.37	bb			
125	t001215_125	10x E00-1311-3159	6.456	398660	1180.765	50.58	bb			
126	t001215_126	10x E00-1311-3159ms	6.369	1391674	4215.479	224.60	bb			
127	t001215_127	10x E00-1311-3160	6.429	1313759	3956.266	208.79	bb			
128	t001215_128	10x E00-1311-3161	6.432	1336481	4023.424	212.87	bb			
129	t001215_129	250.4 ppb PFOS 00003-141	6.453	1630600	4979.129	272.38	bb	9		
130	t001215_130	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.352	25232	0.000	0.00	bb			
131	t001215_131	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.336	23839	0.000	0.00	bb			
132	t001215_132	10x E00-1311-3162	6.240	1420534	4680.638	253.48	bb			
133	t001215_133	10x E00-1311-3162ms	6.314	2176430	6417.885	368.04	bb			
134	t001215_134	10x E00-1311-3163	6.467	1921647	5708.008	319.84	bb			
135	t001215_135	10x E00-1311-3164	6.427	1919332	5680.892	318.04	bb			
136	t001215_136	10x E00-1311-3165	6.363	1891362	6470.854	371.72	bb			
137	t001215_137	250.4 ppb PFOS 00003-141	6.328	1616620	5221.768	287.97	bb	15		
138	t001215_138	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.413	25608	0.000	0.00	bb			
139	t001215_139	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.369	25353	0.000	0.00	bb			
140	t001215_140	10x E00-1311-3165ms	6.393	2518441	8671.869	537.56	bb			
141	t001215_141	10x E00-1311-3166	6.473	490459	1514.172	68.64	bb			
142	t001215_142	10x E00-1311-3167	6.484	454448	1362.081	60.37	bb			
143	t001215_143	10x E00-1311-3168	6.464	270348	804.620	30.48	bb			
144	t001215_144	10x E00-1311-3168ms	6.448	1312137	3928.931	207.13	bb			
145	t001215_145	250.4 ppb PFOS 00003-141	6.393	1521355	5042.004	276.40	bb	10		
146	t001215_146	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.264	23346	0.000	0.00	bb			
147	t001215_147	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.332	24500	0.000	0.00	bb			
148	t001215_148	10x E00-1311-3169	6.484	1269778	3790.616	198.79	bb			
149	t001215_149	10x E00-1311-3170	6.232	1361053	4423.367	237.42	bb			
150	t001215_150	10x E00-1311-3171	6.328	1302570	3753.871	196.59	bb			
151	t001215_151	10x E00-1311-3171ms	6.486	2138339	6326.790	361.74	bb			
152	t001215_152	10x E00-1311-3172	6.463	1909649	5474.736	304.44	bb			
153	t001215_153	250.4 ppb PFOS 00003-141	6.478	1569463	4583.933	247.42	bb	-1		
154	t001215_154	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.441	25530	0.000	0.00	bb			
155	t001215_155	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.408	25032	0.000	0.00	bb			
156	t001215_156	10x E00-1311-3173	6.359	1924000	6430.461	368.92	bb			
157	t001215_157	10x E00-1311-3174	6.376	1823228	6107.042	346.68	bb			
158	t001215_158	10x E00-1311-3174ms	6.482	2505717	7474.248	443.98	bb			
159	t001215_159	250.4 ppb PFOS 00003-141	6.472	1551613	4455.908	239.44	bb	-4		
160	t001215_160	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.473	32065	0.000	0.00	bb			
161	t001215_161	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.212	28836	0.000	0.00	bb			
162	t001215_162	10x E00-1311-3184	6.235	27853	79.638	0.00	bb			
163	t001215_163	10x E00-1311-3185	6.192	27101	76.961	0.00	bb			
164	t001215_164	10x E00-1311-3186	6.180	25663	73.164	0.00	bb			

Quantitated and Printed by CMC on 18 Dec 00, Study E00-1311

CMC 12/18/00

Quantify Compound Summary Report
PFOS Adsorb/Desorb Study LC/MS Instrument: Tucker (LA052)

Sample List: C:\MASSLYNX\Decatur.PRO\SampleDB\t001215
Last modified: Mon Dec 18 10:45:28 2000
Method: C:\MASSLYNX\Decatur.PRO\MethDB\001215
Last modified: Mon Dec 18 10:50:01 2000
Job Code:

Printed: Mon Dec 18 10:56:20 2000

Compound 1: PFOS(499)

#	Name	Samplelist Text	RT	Area	Response	ppm	Flags	%Dev	od	Comment
165	t001215_165	10x E00-1311-3186ms	6.189	1213191	3646.165	190.14	bb			
166	t001215_166	10x E00-1311-3187	6.208	28200	84.514	0.00	bb			
167	t001215_167	250.4 ppb PFOS 00003-141	6.228	1709614	4678.916	253.37	bb	1		
168	t001215_168	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.192	33876	0.000	0.00	bb			
169	t001215_169	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.248	32005	0.000	0.00	bb			
170	t001215_170	10x E00-1311-3188	6.304	24369	69.146	0.00	bb			
171	t001215_171	10x E00-1311-3189	6.442	24595	70.860	0.00	bb			
172	t001215_172	10x E00-1311-3189ms	6.484	1090006	3242.894	166.28	bb			
173	t001215_173	10x E00-1311-3190	6.443	26337	81.389	0.00	bb			
174	t001215_174	10x E00-1311-3191	6.215	26588	78.975	0.00	bb			
175	t001215_175	250.4 ppb PFOS 00003-141	6.213	1712977	4750.145	257.85	bb	3		
176	t001215_176	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.240	32775	0.000	0.00	bb			
177	t001215_177	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.252	29504	0.000	0.00	bb			
178	t001215_178	10x E00-1311-3192	6.477	26709	76.788	0.00	bb			
179	t001215_179	10x E00-1311-3192ms	6.361	1122264	3604.296	187.64	bb			
180	t001215_180	250.4 ppb PFOS 00003-141	6.412	1590409	5068.404	278.09	bb	11		
181	t001215_181	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.420	26786	0.000	0.00	bb			
182	t001215_182	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.296	26510	0.000	0.00	bb			
183	t001215_183	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.480	27913	0.000	0.00	bb			
184	t001215_184	0 ppb PFOS 00002-86-01	6.481	31358	91.574	0.00	bb			
185	t001215_185	2.5 ppb PFOS 00002-86-02	6.421	51199	146.499	0.00	bbX	-100		
186	t001215_186	5 ppb PFOS 00002-86-03	6.482	72994	212.090	0.00	bbX	-100		
187	t001215_187	10 ppb PFOS 00002-86-04	6.486	106025	312.819	4.62	bbX	-54		
188	t001215_188	25 ppb PFOS 00002-86-05	6.469	197302	574.354	18.32	bb	-27		
189	t001215_189	40 ppb PFOS 00002-86-06	6.376	300365	861.131	33.49	bb	-16		
190	t001215_190	50.1 ppb PFOS 00002-86-07	6.468	368099	1052.172	43.68	bb	-13		
191	t001215_191	75.1 ppb PFOS 00002-86-08	6.484	547191	1577.562	72.10	bb	-4		
192	t001215_192	100.2 ppb PFOS 00002-86-09	6.409	716285	2213.537	107.30	bb	7		
193	t001215_193	250.4 ppb PFOS 00003-141	6.192	1792194	4908.508	267.88	bb	7		
194	t001215_194	500.9 ppb PFOS 00002-86-12	6.221	2783510	7818.634	469.98	bb	-6		
195	t001215_195	1001.7 ppb PFOS 00002-86-13	6.221	4584416	12639.560	959.07	bb	-4		
196	t001215_196	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.221	23461	0.000	0.00	bb			
197	t001215_197	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.199	23905	0.000	0.00	bb			
198	t001215_198	MeOH Blank, TN-A-4740, Aliq. 12/04/00 CMC	6.176	25693	0.000	0.00	bb			

Quantitated and Printed by CMC on 18 Dec 00, Study E00-1311

CMC 12/18/00

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001211
Last modified: Wed Dec 13 06:47:59 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001211
Last modified: Wed Dec 13 06:45:45 2000
Job Code:

Printed: Wed Dec 13 06:56:48 2000

Compound 1: PFOS (499>99), Func 1

#	Name	study no Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Comment
1	s001211_001	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.145	45	0.00		bb		
2	s001211_002	E00-1311 1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		7.129	30139	1047.09	5	bb		
3	s001211_003	E00-1311 1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		7.117	30555	1013.55	1	bb		
4	s001211_004	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.130	151	0.00		bb		
5	s001211_005	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.130	62	0.00		bb		
6	s001211_006	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		7.130	147	0.00		bb		
7	s001211_007	E00-1311 2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Analyte		7.130	437	0.00	-100	bb		
8	s001211_008	E00-1311 5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Analyte		7.118	684	0.00	-100	bb		
9	s001211_009	E00-1311 10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Analyte		7.116	1330	0.00	-100	bb		
10	s001211_010	E00-1311 25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Analyte		7.107	2780	4.16	-83	bb		
11	s001211_011	E00-1311 40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Analyte		7.105	4390	24.69	-38	bb		
12	s001211_012	E00-1311 50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Analyte		7.092	4994	39.34	-21	bb		
13	s001211_013	E00-1311 75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Analyte		7.092	6248	76.34	2	bb		
14	s001211_014	E00-1311 100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Analyte		7.103	9379	96.53	-4	bb		
15	s001211_015	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Analyte		7.103	18739	237.62	-5	bb		
16	s001211_016	E00-1311 400.7 ppb PFOS 00002-86-11, Aliq. 11-27-00 MLA	Analyte		7.103	24733	374.68	-6	bb		
17	s001211_017	E00-1311 500.9 ppb PFOS 00002-86-12 Aliq. 11-27-00 MLA	Analyte		7.091	25927	471.99	-6	bb		
18	s001211_018	E00-1311 1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		7.096	36014	1140.79	14	bb		
19	s001211_019	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	322	0.00		bb		
20	s001211_020	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.116	121	0.00		bb		
21	s001211_021	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		7.106	201	0.00		bb		
22	s001211_022	E00-1311 2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Standard	2.50	7.104	655	0.00	-100	bbX		
23	s001211_023	E00-1311 5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Standard	5.00	7.103	835	0.00	-100	bbX		
24	s001211_024	E00-1311 10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Standard	10.00	7.105	1396	0.00	-100	bbX		
25	s001211_025	E00-1311 25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Standard	25.00	7.093	3057	3.63	-85	bbX		
26	s001211_026	E00-1311 40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Standard	40.00	7.104	4577	21.75	-46	bbX		
27	s001211_027	E00-1311 50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Standard	50.10	7.094	5902	41.03	-18	bb		
28	s001211_028	E00-1311 75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Standard	75.10	7.103	7741	72.16	-4	bb		
29	s001211_029	E00-1311 100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Standard	100.20	7.094	9856	106.41	6	bb		
30	s001211_030	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Standard	250.40	7.094	18892	241.29	-4	bb		
31	s001211_031	E00-1311 400.7 ppb PFOS 00002-86-11, Aliq. 11-27-00 MLA	Standard	400.70	7.104	24539	384.15	-4	bb		
32	s001211_032	E00-1311 500.9 ppb PFOS 00002-86-12 Aliq. 11-27-00 MLA	Standard	500.90	7.092	27730	449.93	-10	bb		
33	s001211_033	E00-1311 1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Standard	1001.70	7.091	41307	900.93	-10	bb		
34	s001211_034	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	351	0.00		bb		
35	s001211_035	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank		7.104	203	0.00		bb		
36	s001211_036	E00-1311 10x E00-1311-3022-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		7.105	232	0.00		bb		
37	s001211_037	E00-1311 10x E00-1311-3023-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		7.103	118	0.00		bb		
38	s001211_038	E00-1311 10x E00-1311-3024-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		7.094	111	0.00		bb		
39	s001211_039	E00-1311 10x E00-1311-3024ms-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07..	Analyte		7.103	13632	196.55		bb		
40	s001211_040	E00-1311 10x E00-1311-3025-S1 0.0mg/L, 48hr, 1:5 Clay, 12/07/00	Analyte		7.093	162	0.00		bb		
41	s001211_041	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.091	17554	257.65	3	bb		
42	s001211_042	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.094	142	0.00		bb		
43	s001211_043	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.105	100	0.00		bb		
44	s001211_044	E00-1311 10x E00-1311-3026-S1 0.0mg/L, 48hr, 1:5 Clay, 12/07/00	Analyte		7.103	160	0.00		bb		
45	s001211_045	E00-1311 10x E00-1311-3027-S1 0.0mg/L, 48hr, 1:5 Clay, 12/07/00	Analyte		7.105	119	0.00		bb		
46	s001211_046	E00-1311 10x E00-1311-3027ms-S1 0.0mg/L, 48hr, 1:5 Clay, 12/07..	Analyte		7.091	13120	185.82		bb		
47	s001211_047	E00-1311 10x E00-1311-3028-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	Analyte		7.104	153	0.00		bb		
48	s001211_048	E00-1311 10x E00-1311-3029-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	Analyte		7.105	146	0.00		bb		
49	s001211_049	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.093	17337	267.72	7	bb		
50	s001211_050	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.107	129	0.00		bb		
51	s001211_051	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.102	96	0.00		bb		
52	s001211_052	E00-1311 10x E00-1311-3030-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	Analyte		7.107	131	0.00		bb		
53	s001211_053	E00-1311 10x E00-1311-3030ms-S1 0.0mg/L, 48hr, 1:25 Clay, 12/0..	Analyte		7.090	14376	399.71		bb		
54	s001211_054	E00-1311 10x E00-1311-3058-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		7.091	9369	130.40		bb		
55	s001211_055	E00-1311 10x E00-1311-3059-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		7.103	8719	114.48		bb		
56	s001211_056	E00-1311 10x E00-1311-3060-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		7.098	8862	111.17		bb		
57	s001211_057	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.092	16918	255.36	2	bb		
58	s001211_058	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.096	150	0.00		bb		
59	s001211_059	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.103	122	0.00		bb		
60	s001211_060	E00-1311 10x E00-1311-3060ms-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07..	Analyte		7.096	17325	306.74		bb		
61	s001211_061	E00-1311 10x E00-1311-3061-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		7.093	17202	293.97		bb		
62	s001211_062	E00-1311 10x E00-1311-3062-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		7.091	17657	314.29		bb		
63	s001211_063	E00-1311 10x E00-1311-3063-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		7.094	17276	287.97		bb		
64	s001211_064	E00-1311 10x E00-1311-3063ms-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07..	Analyte		7.093	23519	655.16		bb		
65	s001211_065	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.099	16266	267.28	7	bb		
66	s001211_066	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.107	190	0.00		bb		
67	s001211_067	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	128	0.00		bb		
68	s001211_068	E00-1311 10x E00-1311-3064-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		7.090	8619	118.92		bb		
69	s001211_069	E00-1311 10x E00-1311-3065-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		7.093	16388	305.10		bb		
70	s001211_070	E00-1311 10x E00-1311-3066-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		7.103	9154	128.68		bb		
71	s001211_071	E00-1311 10x E00-1311-3066ms-S1, 0.5mg/L, 48hr, 1:25Clay, 12/0..	Analyte		7.092	17348	309.90		bb		
72	s001211_072	E00-1311 10x E00-1311-3085-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07/00	Analyte		7.091	9621	131.97		bb		
73	s001211_073	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.092	16228	265.61	6	bb		
74	s001211_074	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.107	139	0.00		bb		
75	s001211_075	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.105	99	0.00		bb		
76	s001211_076	E00-1311 10x E00-1311-3086-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07/00	Analyte		7.092	9497	138.13		bb		
77	s001211_077	E00-1311 10x E00-1311-3087-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07/00	Analyte		7.092	4827	44.59		bb		
78	s001211_078	E00-1311 10x E00-1311-3087ms-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07..	Analyte		7.091	18130	433.65		bb		
79	s001211_079	E00-1311 10x E00-1311-3088-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07/00	Analyte		7.094	8305	103.26		bb		
80	s001211_080	E00-1311 10x E00-1311-3089-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07/00	Analyte		7.090	7600	119.90		bb		
81	s001211_081	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.082	14237	272.36	9	bb		
82	s001211_082	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.105	112	0.00		bb		
83	s001211_083	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	89	0.00		bb		
84	s001211_084	E00-1311 10x E00-1311-3090-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07/00	Analyte		7.094	8704	129.42		bb		
85	s001211_085	E00-1311 10x E00-1311-3090ms-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07..	Analyte		7.103	17410	334.95		bb		
86	s001211_086	E00-1311 10x E00-1311-3091-S1, 0.5mg/L, 36hr, 1:25Clay, 12/07/00	Analyte		7.093	17206	299.09		bb		
87	s001211_087	E00-1311 10x E00-1311-3092-S1, 0.5mg/L, 36hr, 1:25Clay, 12/07/00	Analyte		7.092	17570	313.39		bb		
88	s001211_088	E00-1311 10x E00-1311-3093-S1, 0.5mg/L, 36hr, 1:25Clay, 12/07/00	Analyte		7.089	17022	289.84		bb		
89	s001211_089	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.092	15528	270.97	8	bb		
90	s001211_090	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.103	131	0.00		bb		
91	s001211_091	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.103	84	0.00		bb		
92	s001211_092	E00-1311 10x E00-1311-3094ms-S1, 0.5mg/L, 36hr, 1:25Clay, 12/0..	Analyte		7.094	20150	497.01		bb		
93	s001211_093	E00-1311 10x E00-1311-3094-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		7.106	5331	59.14		bb		
94	s001211_094	E00-1311 10x E00-1311-3095-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		7.092	5526	62.46		bb		
95	s001211_095	E00-1311 10x E00-1311-3096-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		7.090	5297	69.48		bb		
96	s001211_096	E00-1311 10x E00-1311-3096ms-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07..	Analyte		7.090	14567	345.73		bb		
97	s001211_097	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.094	14603	247.60	-1	bb		
98	s001211_098	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	96	0.00		bb		
99	s001211_099	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.095	64	0.00		bb		
100	s001211_100	E00-1311 10x E00-1311-3097-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		7.092	6135	92.90		bb		
101	s001211_101	E00-1311 10x E00-1311-3098-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		7.105	6179	107.09		bb		
102	s001211_102	E00-1311 10x E00-1311-3099-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		7.104	5700	95.60		bb		
103	s001211_103	E00-1311 10x E00-1311-3099ms-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07..	Analyte		7.094	13158	286.04		bb		
104	s001211_104	E00-1311 10x E00-1311-3.00-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		7.105	13931	301.56		bb		
105	s001211_105	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.103	13113	273.58	9	bb		
106	s001211_106	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.092	111	0.00		bb		
107	s001211_107	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.117	90	0.00		bb		
108	s001211_108	E00-1311 10x E00-1311-3101-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		7.092	13542	331.37		bb		
109	s001211_109	E00-1311 10x E00-1311-3102-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		7.094	13953	361.05		bb		
110	s001211_110	E00-1311 10x E00-1311-3102ms-S1, 0.5mg/L, 48hr, 1:25Clay, 12/0..	Analyte		7.093	19163	555.88		bb		
111	s001211_111	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	250.40	7.105	12795	276.72	11	bb		
112	s001211_112	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.104	128	0.00		bb		
113	s001211_113	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.117	66	0.00		bb		
114	s001211_114	E00-1311 0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		7.103	136	0.00		bb		
115	s001211_115	E00-1311 2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Standard	2.50	7.101	416	0.00	-100	bbX		
116	s001211_116	E00-1311 5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Standard	5.00	7.106	595	0.00	-100	bbX		
117	s001211_117	E00-1311 10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Standard	10.00	7.103	915	0.00	-100	bbX		
118	s001211_118	E00-1311 25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Standard	25.00	7.102	2063	4.58	-82	bbX		
119	s001211_119	E00-1311 40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Standard	40.00	7.103	3436	28.99	-28	bb		
120	s001211_120	E00-1311 50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Standard	50.10	7.094	3693	41.30	-18	bb		
121	s001211_121	E00-1311 75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Standard	75.10	7.093	5423	84.44	12	bb		
122	s001211_122	E00-1311 100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Standard	100.20	7.090	6710	123.76	24	bb		
123	s001211_123	E00-1311 250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Standard	250.40	7.089	12652	258.38	3	bb		
124	s001211_124	E00-1311 400.7 ppb PFOS 00002-86-11, Aliq. 11-27-00 MLA	Standard	400.70	7.092	18697	421.15	5	bb		
125	s001211_125	E00-1311 500.9 ppb PFOS 00002-86-12 Aliq. 11-27-00 MLA	Standard	500.90	7.093	19710	541.23	8	bb		
126	s001211_126	E00-1311 1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Standard	1001.70	7.090	29118	1219.01	22	bb		
127	s001211_127	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.092	28392	0.00		bb		
128	s001211_128	E00-1311 MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		7.106	206	0.00		bb		

SOUP 020199: quantitated and printed by CMC on 12/13/00

CMC 12/13/00

Quantify Compound Summary Report
E00-1311 PFOS Adsorb/Desorb

Sample List: C:\Masslynx\soup020199.pro\SampleDB\s001211
Last modified: Wed Dec 13 08:47:59 2000
Method: C:\Masslynx\soup020199.pro\MethDB\s001211
Last modified: Wed Dec 13 06:45:45 2000
Job Code:

Printed: Wed Dec 13 06:56:49 2000

Compound 2: THPFOS (427>80), func 2

#	Name	study no	Samplelist Text	Type	Std Conc	RT	Area	ppb	%Dev	Flags	Mod	Comment
1	s001211_001	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
2	s001211_002	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		6.949	2608	199.26	-20	bb		
3	s001211_003	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		6.938	2666	203.67	-18	bb		
4	s001211_004	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
5	s001211_005	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
6	s001211_006	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		6.937	3374	257.77	4	bb		
7	s001211_007	E00-1311	2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Analyte		6.938	3715	283.82	14	bb		
8	s001211_008	E00-1311	5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Analyte		6.939	3211	245.33	-1	bb		
9	s001211_009	E00-1311	10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Analyte		6.937	3700	282.63	14	bb		
10	s001211_010	E00-1311	25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Analyte		6.915	3450	263.54	6	bb		
11	s001211_011	E00-1311	40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Analyte		6.913	3769	287.94	16	bb		
12	s001211_012	E00-1311	50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Analyte		6.913	3525	269.28	8	bb		
13	s001211_013	E00-1311	75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Analyte		6.913	3062	233.90	-6	bb		
14	s001211_014	E00-1311	100.2 ppb PFCS 00002-86-09, Aliq. 11-27-00 MLA	Analyte		6.912	3952	301.93	21	bb		
15	s001211_015	E00-1311	250.4 ppb PFCS 00002-86-10, Aliq. 11-27-00 MLA	Analyte		6.912	4131	315.54	27	bb		
16	s001211_016	E00-1311	400.7 ppb PFCS 00002-86-11, Aliq. 11-27-00 MLA	Analyte		6.924	3888	297.00	19	bb		
17	s001211_017	E00-1311	500.9 ppb PFCS 00002-86-12 Aliq. 11-27-00 MLA	Analyte		6.912	3450	263.55	6	bb		
18	s001211_018	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Analyte		6.915	3054	233.31	-6	bb		
19	s001211_019	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
20	s001211_020	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
21	s001211_021	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		6.927	3985	304.42	22	bb		
22	s001211_022	E00-1311	2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Standard	248.60	6.911	4058	310.00	25	bb		
23	s001211_023	E00-1311	5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Standard	248.60	6.911	4041	308.73	24	bb		
24	s001211_024	E00-1311	10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Standard	248.60	6.913	3877	296.20	19	bb		
25	s001211_025	E00-1311	25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Standard	248.60	6.913	3838	293.18	18	bb		
26	s001211_026	E00-1311	40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Standard	248.60	6.924	4111	314.05	26	bb		
27	s001211_027	E00-1311	50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Standard	248.60	6.915	4083	311.87	25	bb		
28	s001211_028	E00-1311	75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Standard	248.60	6.911	3927	300.01	21	bb		
29	s001211_029	E00-1311	100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Standard	248.60	6.914	3890	297.17	20	bb		
30	s001211_030	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Standard	248.60	6.914	4117	314.48	26	bb		
31	s001211_031	E00-1311	400.7 ppb PFOS 00002-86-11, Aliq. 11-27-00 MLA	Standard	248.60	6.912	3782	288.89	16	bb		
32	s001211_032	E00-1311	500.9 ppb PFOS 00002-86-11 Aliq. 11-27-00 MLA	Standard	248.60	6.912	3816	291.47	17	bb		
33	s001211_033	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Standard	248.60	6.912	3763	287.45	16	bb		
34	s001211_034	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
35	s001211_035	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Blank								
36	s001211_036	E00-1311	10x E00-1311-1022-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		6.926	3221	246.04	-2	bb		
37	s001211_037	E00-1311	10x E00-1311-1023-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		6.924	3624	276.87	11	bb		
38	s001211_038	E00-1311	10x E00-1311-1024-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		6.914	3700	282.63	13	bb		
39	s001211_039	E00-1311	10x E00-1311-1024ms-S1, 0.0mg/L, 48hr, 1:1Clay, 12/07..	Analyte		6.924	3483	266.10	6	bb		
40	s001211_040	E00-1311	10x E00-1311-1025-S1 0.0mg/L, 48hr, 1:1 Clay, 12/07/00	Analyte		6.914	3598	274.84	10	bb		
41	s001211_041	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.912	3641	278.14	12	bb		
42	s001211_042	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
43	s001211_043	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
44	s001211_044	E00-1311	10x E00-1311-1026-S1 0.0mg/L, 48hr, 1:1 Clay, 12/07/00	Analyte		6.912	3262	249.18	-0	bb		
45	s001211_045	E00-1311	10x E00-1311-1027-S1 0.0mg/L, 48hr, 1:1 Clay, 12/07/00	Analyte		6.913	3363	256.89	3	bb		
46	s001211_046	E00-1311	10x E00-1311-1027ms-S1 0.0mg/L, 48hr, 1:1 Clay, 12/07..	Analyte		6.911	3495	267.02	7	bb		
47	s001211_047	E00-1311	10x E00-1311-1028-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	Analyte		6.912	3533	269.86	8	bb		
48	s001211_048	E00-1311	10x E00-1311-1029-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	Analyte		6.914	3554	271.50	9	bb		
49	s001211_049	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.914	3494	266.90	7	bb		
50	s001211_050	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
51	s001211_051	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
52	s001211_052	E00-1311	10x E00-1311-3030-S1 0.0mg/L, 48hr, 1:25 Clay, 12/07/00	Analyte		6.915	3365	257.05	3	bb		
53	s001211_053	E00-1311	10x E00-1311-3030ms-S1 0.0mg/L, 48hr, 1:25 Clay, 12/0..	Analyte		6.910	2165	165.36	-34	bb		
54	s001211_054	E00-1311	10x E00-1311-3058-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		6.912	3229	246.66	-1	bb		
55	s001211_055	E00-1311	10x E00-1311-3059-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		6.922	3292	251.46	1	bb		
56	s001211_056	E00-1311	10x E00-1311-3060-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		6.918	3414	260.79	4	bb		
57	s001211_057	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.913	3533	269.88	9	bb		
58	s001211_058	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
59	s001211_059	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
60	s001211_060	E00-1311	10x E00-1311-3060ms-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07..	Analyte		6.917	3171	242.21	-3	bb		
61	s001211_061	E00-1311	10x E00-1311-3061-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		6.913	3250	248.26	-1	bb		
62	s001211_062	E00-1311	10x E00-1311-3062-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		6.911	3173	242.40	-3	bb		
63	s001211_063	E00-1311	10x E00-1311-3363-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		6.915	3315	253.21	1	bb		
64	s001211_064	E00-1311	10x E00-1311-3363ms-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07..	Analyte		6.926	2541	194.10	-22	bb		
65	s001211_065	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.920	3282	250.73	1	bb		
66	s001211_066	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
67	s001211_067	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
68	s001211_068	E00-1311	10x E00-1311-3064-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		6.923	3169	242.09	-3	bb		
69	s001211_069	E00-1311	10x E00-1311-3065-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		6.914	3011	230.04	-8	bb		
70	s001211_070	E00-1311	10x E00-1311-3066-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		6.924	3185	243.29	-3	bb		
71	s001211_071	E00-1311	10x E00-1311-3066ms-S1, 0.5mg/L, 48hr, 1:25Clay, 12/0..	Analyte		6.912	3151	240.68	-4	bb		
72	s001211_072	E00-1311	10x E00-1311-3085-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07/00	Analyte		6.912	3288	251.16	0	bb		
73	s001211_073	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.913	3290	251.32	1	bb		
74	s001211_074	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
75	s001211_075	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
76	s001211_076	E00-1311	10x E00-1311-3086-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07/00	Analyte		6.913	3142	240.00	-4	bb		
77	s001211_077	E00-1311	10x E00-1311-3087-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07/00	Analyte		6.912	3222	246.15	-2	bb		
78	s001211_078	E00-1311	10x E00-1311-3087ms-S1, 0.5mg/L, 36hr, 1:1Clay, 12/07..	Analyte		6.911	2575	196.70	-21	bb		
79	s001211_079	E00-1311	10x E00-1311-3088-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07/00	Analyte		6.914	3164	256.98	3	bb		
80	s001211_080	E00-1311	10x E00-1311-3089-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07/00	Analyte		6.911	2779	212.26	-15	bb		
81	s001211_081	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.903	2832	216.36	-13	bb		
82	s001211_082	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
83	s001211_083	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
84	s001211_084	E00-1311	10x E00-1311-3C90-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07/00	Analyte		6.915	3016	230.39	-8	bb		
85	s001211_085	E00-1311	10x E00-1311-3C90ms-S1, 0.5mg/L, 36hr, 1:5Clay, 12/07..	Analyte		6.911	2984	227.96	-9	bb		
86	s001211_086	E00-1311	10x E00-1311-3C91-S1, 0.5mg/L, 36hr, 1:25Clay, 12/07/00	Analyte		6.914	3209	245.13	-2	bb		
87	s001213_087	E00-1311	10x E00-1311-3092-S1, 0.5mg/L, 36hr, 1:25Clay, 12/07/00	Analyte		6.913	3164	241.74	-3	bb		
88	s001211_088	E00-1311	10x E00-1311-3093-S1, 0.5mg/L, 36hr, 1:25Clay, 12/07/00	Analyte		6.910	3252	248.43	-:	bb		
89	s001211_089	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.912	3101	236.90	-5	bb		
90	s001211_090	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
91	s001211_091	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
92	s001211_092	E00-1311	10x E00-1311-3093ms-S1, 0.5mg/L, 36hr, 1:25Clay, 12/0..	Analyte		6.913	2602	198.76	-20	bb		
93	s001211_093	E00-1311	10x E00-1311-3094-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		6.926	3098	237.61	-7	bb		
94	s001211_094	E00-1311	10x E00-1311-3095-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		6.925	3072	234.67	-8	bb		
95	s001211_095	E00-1311	10x E00-1311-3096-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07/00	Analyte		6.912	2765	211.25	-16	bb		
96	s002211_096	E00-1311	10x E00-1311-3096ms-S1, 0.5mg/L, 48hr, 1:1Clay, 12/07..	Analyte		6.911	2439	186.33	-28	bb		
97	s001211_097	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.903	3121	238.41	-4	bb		
98	s001211_098	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
99	s001211_099	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
100	s001211_100	E00-1311	10x E00-1311-3097-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		6.913	2666	203.70	-19	bb		
101	s001211_101	E00-1311	10x E00-1311-3098-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		6.913	2442	186.54	-25	bb		
102	s001211_102	E00-1311	10x E00-1311-3099-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07/00	Analyte		6.913	2858	218.30	-13	bb		
103	s001211_103	E00-1311	10x E00-1311-3099ms-S1, 0.5mg/L, 48hr, 1:5Clay, 12/07..	Analyte		6.914	2537	193.84	-22	bb		
104	s001211_104	E00-1311	10x E00-1311-3100-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		6.914	2582	197.26	-21	bb		
105	s001211_105	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.912	2600	198.62	-20	bb		
106	s001211_106	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
107	s001211_107	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
108	s001211_108	E00-1311	10x E00-1311-3131-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		6.912	2340	178.74	-29	bb		
109	s001211_109	E00-1311	10x E00-1311-3132-S1, 0.5mg/L, 48hr, 1:25Clay, 12/07/00	Analyte		6.915	2263	172.86	-31	bb		
110	s001211_110	E00-1311	10x E00-1311-3132ms-S1, 0.5mg/L, 48hr, 1:25Clay, 12/0..	Analyte		6.914	2296	175.36	-30	bb		
111	s001211_111	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	QC	248.60	6.912	2515	192.14	-23	bb		
112	s001211_112	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
113	s001211_113	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								
114	s001211_114	E00-1311	0 ppb PFOS 00002-86-01, Aliq. 11-27-00 MLA	Analyte		6.911	2433	185.90	-25	bb		
115	s001211_115	E00-1311	2.5 ppb PFOS 00002-86-02, Aliq. 11-27-00 MLA	Standard	248.60	6.910	2784	212.69	-14	bb		
116	s001211_116	E00-1311	5.00 ppb PFOS 00002-86-03, Aliq. 11-27-00 MLA	Standard	248.60	6.914	2713	207.23	-17	bb		
117	s001211_117	E00-1311	10.0 ppb PFOS 00002-86-04, Aliq. 11-27-00 MLA	Standard	248.60	6.911	2413	184.36	-26	bb		
118	s001211_118	E00-1311	25.0 ppb PFOS 00002-86-05, Aliq. 11-27-00 MLA	Standard	248.60	6.923	2536	193.75	-22	bb		
119	s001211_119	E00-1311	40.0 ppb PFOS 00002-86-06, Aliq. 11-27-00 MLA	Standard	248.60	6.924	2773	211.85	-15	bb		
120	s001211_120	E00-1311	50.1 ppb PFOS 00002-86-07 Aliq. 11-27-00 MLA	Standard	248.60	6.914	2547	194.54	-22	bb		
121	s001211_121	E00-1311	75.1 ppb PFOS 00002-86-08, Aliq. 11-27-00 MLA	Standard	248.60	6.914	2494	190.49	-23	bb		
122	s001211_122	E00-1311	100.2 ppb PFOS 00002-86-09, Aliq. 11-27-00 MLA	Standard	248.60	6.911	2386	182.26	-27	bb		
123	s001211_123	E00-1311	250.4 ppb PFOS 00002-86-10, Aliq. 11-27-00 MLA	Standard	248.60	6.910	2619	200.04	-20	bb		
124	s001211_124	E00-1311	400.7 ppb PFOS 00002-86-11, Aliq. 11-27-00 MLA	Standard	248.60	6.912	2696	205.98	-17	bb		
125	s001211_125	E00-1311	500.9 ppb PFOS 00002-86-12 Aliq. 11-27-00 MLA	Standard	248.60	6.913	2390	182.54	-27	bb		
126	s001211_126	E00-1311	1001.7 ppb PFOS 00002-86-13, aliq. 11-27-00 MLA	Standard	248.60	6.911	2450	187.18	-25	bb		
127	s001211_127	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte		6.912	2505	191.40		bb		
128	s001211_128	E00-1311	MeOH Blank, TN-A-4715, Aliq. 11/16/00	Analyte								

SOUP 020199: quantitated and printed by CMC on 12/13/00

CMC 12/13/00

Study # E00-1311 Compound: PFOS Study: Adsorb/Desorb
Analytical Instrument: Hillary on 12/14/00 Reprocessing Workstation: Dioana 12/18/00 batch H1214a1.b

Sample ID	Sample Desc	Run #	Rep Mtd	Data file	Vial #	PFBS ppb	PFBS RT	PFBS area	THPFOS ppb	THPFOS RT	THPFOS area	PFOS RT	PFOS area	PFOS ppb	
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-05	25 ppb PFOS Calibration Std #5	26	H1214A1.M	Hill0026.D	5	247.0	6.57	1,030,547.8	248.6	7.54	645,953.3	7.74	363,570.1	22.3	10.9%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-06	40 ppb PFOS Calibration Std #6	27	H1214A1.M	Hill0027.D	6	247.0	6.56	1,040,277.3	248.6	7.54	647,778.7	7.74	581,518.3	39.4	1.5%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-07	50.1 ppb PFOS Calibration Std #7	28	H1214A1.M	Hill0028.D	7	247.0	6.57	1,026,578.8	248.6	7.55	647,690.0	7.74	707,760.0	49.4	1.4%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-08	75.1 ppb PFOS Calibration Std #8	29	H1214A1.M	Hill0029.D	8	247.0	6.56	1,014,268.6	248.6	7.54	642,514.9	7.74	1,048,160.4	77.3	3.0%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-09	100.2 ppb PFOS Calibration Std #9	30	H1214A1.M	Hill0030.D	9	247.0	6.56	1,023,443.3	248.6	7.54	648,175.4	7.74	1,364,384.8	102.1	1.9%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00003-141	250.4 ppb PFOS Calibration Std #10	31	H1214A1.M	Hill0031.D	10	247.0	6.56	1,041,050.4	248.6	7.54	656,451.6	7.74	3,252,367.8	257.6	2.9%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-11	400.7 ppb PFOS Calibration Std #11	32	H1214A1.M	Hill0032.D	11	247.0	6.56	1,037,341.3	248.6	7.54	651,013.2	7.74	4,859,772.5	404.4	0.9%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-12	500.9 ppb PFOS Calibration Std #12	33	H1214A1.M	Hill0033.D	12	247.0	6.57	1,042,652.9	248.6	7.54	650,093.3	7.74	5,851,683.5	499.9	0.2%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-13	1001.7 ppb PFOS Calibration Std #13	34	H1214A1.M	Hill0034.D	13	247.0	6.57	1,011,926.4	248.6	7.54	644,791.0	7.74	10,197,839.0	999.4	0.2%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00003-141 CCV	250.4 ppb PFOS CCV	42	H1214A1.M	Hill0042.D	10	247.0	6.56	1,031,956.0	248.6	7.54	655,563.3	7.74	3,223,236.8	255.4	
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00003-141 CCV	250.4 ppb PFOS CCV	50	H1214A1.M	Hill0050.D	10	247.0	6.56	1,028,888.3	248.6	7.54	653,181.1	7.74	3,217,212.5	255.9	2.2%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00003-141 CCV	250.4 ppb PFOS CCV	58	H1214A1.M	Hill0058.D	10	247.0	6.56	1,025,626.2	248.6	7.53	655,857.3	7.74	3,228,307.5	255.7	2.1%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00003-141 CCV	250.4 ppb PFOS CCV	66	H1214A1.M	Hill0066.D	10	247.0	6.56	1,014,181.1	248.6	7.53	636,745.5	7.74	3,122,512.0	254.7	1.7%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00003-141 CCV	250.4 ppb PFOS CCV	74	H1214A1.M	Hill0074.D	10	247.0	6.55	996,439.1	248.6	7.54	635,288.6	7.74	3,115,688.0	254.7	1.7%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00003-141 CCV	250.4 ppb PFOS CCV	82	H1214A1.M	Hill0082.D	10	247.0	6.53	976,924.5	248.6	7.52	622,280.5	7.74	3,056,880.8	255.2	1.9%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-05	25 ppb PFOS Calibration Std #25	89	H1214A1.M	Hill0089.D	5	247.0	6.53	958,626.4	248.6	7.52	599,346.4	7.74	338,940.8	22.4	10.4%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-06	40 ppb PFOS Calibration Std #26	90	H1214A1.M	Hill0090.D	6	247.0	6.53	959,545.8	248.6	7.52	602,015.6	7.74	530,461.8	38.5	3.7%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-07	50.1 ppb PFOS Calibration Std #27	91	H1214A1.M	Hill0091.D	7	247.0	6.53	964,280.1	248.6	7.52	613,825.4	7.74	666,795.0	49.1	2.0%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-08	75.1 ppb PFOS Calibration Std #28	92	H1214A1.M	Hill0092.D	8	247.0	6.53	943,308.6	248.6	7.52	598,254.6	7.74	968,530.8	76.7	2.1%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-09	100.2 ppb PFOS Calibration Std #29	93	H1214A1.M	Hill0093.D	9	247.0	6.53	955,510.1	248.6	7.53	609,668.4	7.74	1,265,481.5	100.6	0.4%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00003-141	250.4 ppb PFOS Calibration Std #30	94	H1214A1.M	Hill0094.D	10	247.0	6.53	966,756.3	248.6	7.52	614,913.3	7.74	3,006,623.0	253.9	1.4%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-11	400.7 ppb PFOS Calibration Std #31	95	H1214A1.M	Hill0095.D	11	247.0	6.52	955,342.4	248.6	7.52	605,318.9	7.74	4,449,853.5	397.5	0.8%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-12	500.9 ppb PFOS Calibration Std #32	96	H1214A1.M	Hill0096.D	12	247.0	6.52	961,285.8	248.6	7.52	611,212.4	7.74	5,420,927.5	491.5	1.9%
	248.6 ppb THPFOS/ 247.0 ppb PFBS□														
00002-86-13	1001.7 ppb PFOS Calibration Std #33	97	H1214A1.M	Hill0097.D	13	247.0	6.52	938,365.9	248.6	7.52	586,889.6	7.74	9,330,660.0	1,006.4	0.5%

KLT 12.19.00
P. 1981

Study # E00-1311 Compound: PFOS Study: Adsorb/Desorb

Analytical Instrument: Hiltary on 12/14/00 Reprocessing Workstation: Dioana 12/18/00 batch H1214b1.b

Sample ID		Sample Desc		Run #	Rep Mtd	Data file	Vial #	PFBS ppb	PFBS RT	PFBS area	THPFOS ppb	THPFOS RT	THPFOS area	PFOS RT	PFOS area	PFOS ppb	
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-05		25 ppb PFOS	Calibration Std #5	7	H1214B1.M	Hill0089.D	5	247.00	6.53	958626.38	248.60	7.52	599348.38	7.74	338940.84	22.65	9.4%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-06		40 ppb PFOS	Calibration Std #6	8	H1214B1.M	Hill0090.D	6	247.00	6.53	959545.75	248.60	7.52	602015.56	7.74	530461.75	38.94	2.6%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-07		50.1 ppb PFOS	Calibration Std #7	9	H1214B1.M	Hill0091.D	7	247.00	6.53	964280.13	248.60	7.52	613825.44	7.74	666795.00	49.59	1.0%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-08		75.1 ppb PFOS	Calibration Std #8	10	H1214B1.M	Hill0092.D	8	247.00	6.53	943308.56	248.60	7.52	598254.63	7.74	968530.81	77.47	3.2%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-09		100.2 ppb PFOS	Calibration Std #9	11	H1214B1.M	Hill0093.D	9	247.00	6.53	955510.06	248.60	7.53	609668.38	7.74	1265481.50	101.64	1.4%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00003-141		250.4 ppb PFOS	Calibration Std #10	12	H1214B1.M	Hill0094.D	10	247.00	6.53	966756.31	248.60	7.52	614913.25	7.74	3006823.00	256.44	2.4%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-11		400.7 ppb PFOS	Calibration Std #11	13	H1214B1.M	Hill0095.D	11	247.00	6.52	955342.44	248.60	7.52	605318.94	7.74	4449853.50	401.52	0.2%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-12		500.9 ppb PFOS	Calibration Std #12	14	H1214B1.M	Hill0096.D	12	247.00	6.52	961285.81	248.60	7.52	611212.44	7.74	5420927.50	496.38	0.9%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-13		1001.7 ppb PFOS	Calibration Std #13	15	H1214B1.M	Hill0097.D	13	247.00	6.52	938365.88	248.60	7.52	586689.56	7.74	9330660.00	1016.05	1.4%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00003-141	CCV	250.4 ppb PFOS CCV		24	H1214B1.M	Hill0106.D	10	247.00	6.51	958050.50	248.60	7.51	612734.63	7.74	2997740.75	256.61	2.5%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00003-141	CCV	250.4 ppb PFOS CCV		32	H1214B1.M	Hill0114.D	10	247.00	6.53	975048.69	248.60	7.52	625283.75	7.74	3066870.50	257.31	2.8%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00003-141	CCV	250.4 ppb PFOS CCV		40	H1214B1.M	Hill0122.D	10	247.00	6.54	979697.44	248.60	7.52	632611.69	7.74	3078146.00	255.00	1.8%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00003-141	CCV	250.4 ppb PFOS CCV		48	H1214B1.M	Hill0130.D	10	247.00	6.55	980846.19	248.60	7.53	631160.38	7.74	3033635.50	251.73	0.5%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00003-141	CCV	250.4 ppb PFOS CCV		56	H1214B1.M	Hill0138.D	10	247.00	6.55	980019.94	248.60	7.53	621435.50	7.74	3045221.50	257.06	2.7%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00003-141	CCV	250.4 ppb PFOS CCV		64	H1214B1.M	Hill0146.D	10	247.00	6.54	971858.69	248.60	7.52	631518.88	7.74	3060745.75	254.00	1.4%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-05		25 ppb PFOS	Calibration Std #25	71	H1214B1.M	Hill0153.D	5	247.00	6.54	958397.00	248.60	7.53	611969.38	7.74	341316.56	22.25	11.0%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-06		40 ppb PFOS	Calibration Std #26	72	H1214B1.M	Hill0154.D	6	247.00	6.55	960911.56	248.60	7.53	622624.31	7.74	533523.63	37.69	5.8%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-07		50.1 ppb PFOS	Calibration Std #27	73	H1214B1.M	Hill0155.D	7	247.00	6.54	963746.19	248.60	7.53	617701.19	7.74	669175.25	49.44	1.3%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-08		75.1 ppb PFOS	Calibration Std #28	74	H1214B1.M	Hill0156.D	8	247.00	6.54	953208.50	248.60	7.52	616895.31	7.74	978864.25	75.78	0.9%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-09		100.2 ppb PFOS	Calibration Std #29	75	H1214B1.M	Hill0157.D	9	247.00	6.55	960517.44	248.60	7.53	615547.44	7.74	1288105.75	102.54	2.3%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00003-141		250.4 ppb PFOS	Calibration Std #30	76	H1214B1.M	Hill0158.D	10	247.00	6.54	981974.94	248.60	7.52	627304.31	7.74	3055103.75	255.34	2.0%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-11		400.7 ppb PFOS	Calibration Std #31	77	H1214B1.M	Hill0159.D	11	247.00	6.54	959292.56	248.60	7.53	617991.38	7.74	4522913.50	399.54	0.3%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-12		500.9 ppb PFOS	Calibration Std #32	78	H1214B1.M	Hill0160.D	12	247.00	6.54	959614.31	248.60	7.52	612672.13	7.74	5424039.50	495.35	1.1%
		248.6 ppb THPFOS/ 247.0 ppb PFBS□															
00002-86-13		1001.7 ppb PFOS	Calibration Std #33	79	H1214B1.M	Hill0161.D	13	247.00	6.54	962661.00	248.60	7.52	619999.75	7.74	9669561.00	989.84	1.2%

KLT 12-19-00
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Sample Batch H010405.b, analyzed on Hillary 04-05-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 5-1002 ng/mL
Batch method: H010405.m

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Nam	RT	Area	Amount		Compound Nam	RT	Area	Amount	
4/6/01 12:53	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0016.D	0 ng/mL PFOS in MeOH		THPFOS	5.111	853901	254		PFOS	0	0	0	
4/6/01 13:08	D:\Chem\Hillary\H010405.b	CALIB_1	HILL0017.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.121	880305	254		PFOS	5.331	64194	3.942931	
4/6/01 13:22	D:\Chem\Hillary\H010405.b	CALIB_2	HILL0018.D	5 ng/mL PFOS in MeOH		THPFOS	5.12	900514	254		PFOS	5.33	113000	6.364052	127%
4/6/01 13:36	D:\Chem\Hillary\H010405.b	CALIB_3	HILL0019.D	10 ng/mL PFOS in MeOH		THPFOS	5.107	884801	254		PFOS	5.324	189968	10.48501	105%
4/6/01 13:51	D:\Chem\Hillary\H010405.b	CALIB_4	HILL0020.D	25 ng/mL PFOS in MeOH		THPFOS	5.106	891555	254		PFOS	5.323	495541	26.37293	105%
4/6/01 14:05	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0021.D	40 ng/mL PFOS in MeOH		THPFOS	5.121	895606	254		PFOS	5.331	779774	41.22295	103%
4/6/01 14:20	D:\Chem\Hillary\H010405.b	CALIB_5	HILL0022.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.119	905309	254		PFOS	5.33	971274	50.6536	102%
4/6/01 14:34	D:\Chem\Hillary\H010405.b	CALIB_6	HILL0023.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.121	901986	254		PFOS	5.331	1469171	77.71198	103%
4/6/01 14:48	D:\Chem\Hillary\H010405.b	CALIB_7	HILL0024.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.119	902929	254		PFOS	5.329	1921199	102.2878	102%
4/6/01 15:03	D:\Chem\Hillary\H010405.b	CALIB_8	HILL0025.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.112	921590	254		PFOS	5.322	4651125	255.0356	64%
4/6/01 15:17	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0026.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.111	890229	254		PFOS	5.335	6791612	402.9106	101%
4/6/01 15:31	D:\Chem\Hillary\H010405.b	CALIB_9	HILL0027.D	501 ng/mL PFOS in MeOH		THPFOS	5.112	885051	254		PFOS	5.322	8184382	501.689	100%
4/6/01 15:46	D:\Chem\Hillary\H010405.b	CALIB_10	HILL0028.D	1002 ng/mL PFOS in MeOH		THPFOS	5.113	906846	254		PFOS	5.33	14871358	994.5332	99%
4/7/01 4:57	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0083.D	0 ng/mL PFOS in MeOH		THPFOS	5.098	909918	254		PFOS	0	0	0	
4/7/01 5:11	D:\Chem\Hillary\H010405.b	CALIB_11	HILL0084.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.092	901288	254		PFOS	5.302	53650	3.326644	
4/7/01 5:26	D:\Chem\Hillary\H010405.b	CALIB_12	HILL0085.D	5 ng/mL PFOS in MeOH		THPFOS	5.098	907830	254		PFOS	5.301	95517	5.429805	109%
4/7/01 5:40	D:\Chem\Hillary\H010405.b	CALIB_13	HILL0086.D	10 ng/mL PFOS in MeOH		THPFOS	5.1	893968	254		PFOS	5.31	158439	8.752514	88%
4/7/01 5:55	D:\Chem\Hillary\H010405.b	CALIB_14	HILL0087.D	25 ng/mL PFOS in MeOH		THPFOS	5.106	866284	254		PFOS	5.316	425595	23.3514	93%
4/7/01 6:09	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0088.D	40 ng/mL PFOS in MeOH		THPFOS	5.101	854670	254		PFOS	5.311	675739	37.43176	94%
4/7/01 6:23	D:\Chem\Hillary\H010405.b	CALIB_15	HILL0089.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.1	848217	254		PFOS	5.31	847857	47.35439	95%
4/7/01 6:38	D:\Chem\Hillary\H010405.b	CALIB_16	HILL0090.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.101	818486	254		PFOS	5.311	1278693	74.46758	99%
4/7/01 6:52	D:\Chem\Hillary\H010405.b	CALIB_17	HILL0091.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.108	824040	254		PFOS	5.309	1665685	97.01042	97%
4/7/01 7:07	D:\Chem\Hillary\H010405.b	CALIB_18	HILL0092.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.107	839800	254		PFOS	5.31	4111457	246.754	62%
4/7/01 7:21	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0093.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.105	795504	254		PFOS	5.308	6004617	398.0979	99%
4/7/01 7:35	D:\Chem\Hillary\H010405.b	CALIB_19	HILL0094.D	501 ng/mL PFOS in MeOH		THPFOS	5.104	790146	254		PFOS	5.314	7263676	498.2641	99%
4/7/01 7:50	D:\Chem\Hillary\H010405.b	CALIB_20	HILL0095.D	501 ng/mL PFOS in MeOH		THPFOS	5.104	796759	254		PFOS	5.314	13221474	1009.264	101%

Average: 871828.1538 1133377 +30%:
Std Dev: 39409.57909 610280 -30%:
%RSD: 4.5%

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Nam	RT	Area	Amount		Compound Nam	RT	Area	Amount	
4/6/01 12:25	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0014.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 12:39	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0015.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 16:00	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0029.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 16:14	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0030.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 19:21	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0043.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 19:36	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0044.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 22:43	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0057.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 22:57	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0058.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 1:50	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0070.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 2:04	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0071.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 4:28	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0081.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 4:43	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0082.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 8:04	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0096.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 8:18	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0097.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	

CMC 4/9/01
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Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount		Compound Na	RT	Area	Amount	
4/6/01 16:29	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0031.D	2mg/L PFOS Study Number E00-1311		THPFOS	5.112	831638	254		PFOS	5.329	1594908	91.89164	
4/6/01 16:43	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0032.D	2mg/L PFOS Study Number E00-1311		THPFOS	5.12	845717	254		PFOS	5.33	1011666	56.76517	
4/6/01 16:58	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0033.D	2mg/L PFOS Study Number E00-1311		THPFOS	5.113	845296	254		PFOS	5.323	1801989	102.4876	
4/6/01 17:12	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0034.D	2mg/L PFOS Study Number E00-1311		THPFOS	5.112	691267	254		PFOS	5.322	4370912	326.6226	
4/6/01 17:26	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0035.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.106	895152	254		PFOS	5.323	789270	41.74736	
4/6/01 17:41	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0036.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.115	904138	254		PFOS	5.333	986799	51.74131	
4/6/01 17:55	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0037.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.109	908952	254		PFOS	5.326	730034	38.024	
4/6/01 18:09	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0038.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.105	745233	254		PFOS	5.322	3483461	234.6907	
4/6/01 18:24	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0039.D	2mg/L PFOS Study Number E00-1311		THPFOS	5.112	840577	254		PFOS	5.329	1692254	96.60648	
4/6/01 18:38	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0040.D	2mg/L PFOS Study Number E00-1311		THPFOS	5.111	843047	254		PFOS	5.321	2112598	121.2132	
4/6/01 18:52	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0041.D	5 ng/mL PFOS in MeOH		THPFOS	5.113	941520	254		PFOS	5.323	112770	6.100833	122.0%
4/6/01 19:07	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0042.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.116	937854	254		PFOS	5.326	4597708	247.1156	98.6%
4/6/01 19:50	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0045.D	2mg/L PFOS Study Number E00-1311		THPFOS	5.112	852429	254		PFOS	5.329	1619584	91.01251	
4/6/01 20:04	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0046.D	2mg/L PFOS Study Number E00-1311		THPFOS	5.118	688430	254		PFOS	5.328	4093613	305.1853	
4/6/01 20:19	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0047.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.108	911967	254		PFOS	5.318	1001786	52.07933	
4/6/01 20:33	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0048.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.112	919538	254		PFOS	5.322	996187	51.3553	
4/6/01 20:48	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0049.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.106	916068	254		PFOS	5.323	998588	51.67698	
4/6/01 21:02	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0050.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.112	732339	254		PFOS	5.323	3717782	256.6704	
4/6/01 21:16	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0051.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.114	884599	254		PFOS	5.324	760291	40.69207	
4/6/01 21:31	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0052.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.109	844692	254		PFOS	5.319	213559	12.2503	
4/6/01 21:45	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0053.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.104	809811	254		PFOS	5.322	113509	7.04131	
4/6/01 21:59	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0054.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.098	672064	254		PFOS	5.315	3059833	228.1126	
4/6/01 22:14	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0055.D	5 ng/mL PFOS in MeOH		THPFOS	5.112	860662	254		PFOS	5.322	109900	6.465906	129.3%
4/6/01 22:28	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0056.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.098	872477	254		PFOS	5.315	4451710	258.0898	103.0%
4/6/01 23:11	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0059.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.105	809071	254		PFOS	5.322	6644129	437.9532	
4/6/01 23:26	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0060.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.107	808820	254		PFOS	5.317	7503267	503.5302	
4/6/01 23:40	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0061.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.105	809437	254		PFOS	5.322	6451764	423.3709	
4/6/01 23:55	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0062.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.105	646037	254		PFOS	5.323	8372595	746.0709	
4/7/01 0:09	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0063.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.111	853122	254		PFOS	5.322	1011146	56.23727	
4/7/01 0:23	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0064.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.105	888681	254		PFOS	5.315	1599452	86.08401	
4/7/01 0:38	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0065.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.1	854113	254		PFOS	5.31	1567814	87.84356	
4/7/01 0:52	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0066.D	10mg/L PFOS Study Number E00-1311		THPFOS	5.105	700905	254		PFOS	5.315	4173504	305.6462	
4/7/01 1:07	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0067.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.098	1281548	254	ISTD>130%	PFOS	5.308	542210	20.16617	
4/7/01 1:21	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0068.D	5 ng/mL PFOS in MeOH		THPFOS	5.1	999732	254		PFOS	5.31	103957	5.373166	107.5%
4/7/01 1:36	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0069.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.102	916425	254		PFOS	5.312	4298803	235.5874	94.0%
4/7/01 2:19	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0072.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.097	1282301	254	ISTD>130%	PFOS	5.307	144727	5.782359	
4/7/01 2:33	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0073.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.091	1283570	254	ISTD>130%	PFOS	5.302	92058	3.88763	
4/7/01 2:47	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0074.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.091	1122340	254		PFOS	5.301	2467820	105.8252	
4/7/01 3:02	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0075.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.094	1275724	254	ISTD>130%	PFOS	5.304	19188	1.282508	
4/7/01 3:16	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0076.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.092	1295458	254	ISTD>130%	PFOS	5.303	11715	1.007175	
4/7/01 3:31	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0077.D	0mg/L PFOS Study Number E00-1311		THPFOS	0	0	0	ISTD<70%	PFOS	5.297	11778	0	
4/7/01 3:45	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0078.D	0mg/L PFOS Study Number E00-1311		THPFOS	0	0	0	ISTD<70%	PFOS	5.295	2260129	0	
4/7/01 3:59	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0079.D	5 ng/mL PFOS in MeOH		THPFOS	5.085	1122048	254		PFOS	5.295	95065	4.486151	89.7%
4/7/01 4:14	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0080.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.091	1051408	254		PFOS	5.308	4062781	191.3037	76.4%

BACK TO MAIN

Sample Batch R010320.b, analyzed on Rush 03-20-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: ~~2.5-500.1~~ ng/mL CMC 5/15/01
Batch method: R010320.m 50 5ng/mL - 500.1 ng/mL

Inj Date	Batch	SampType	File	Sample Name	Misc In Compound NaRT	Area	Amount		Compound NaRT	Area	Amount		
3/20/01 14:17	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0018.D	0 ng/mL PFOS in MeOH	THPFOS	5.517	1088332	254	PFOS	0	0	0	
3/20/01 14:31	D:\Chem\Rush\R010320.b	CALIB_1	RUSH0019.D	2.5 ng/mL PFOS in MeOH	THPFOS	5.496	1083902	254	PFOS	5.706	128798	1.792859	
3/20/01 14:45	D:\Chem\Rush\R010320.b	CALIB_2	RUSH0020.D	5 ng/mL PFOS in MeOH	THPFOS	5.494	1104114	254	PFOS	5.704	203193	4.185802	84%
3/20/01 14:59	D:\Chem\Rush\R010320.b	CALIB_3	RUSH0021.D	10 ng/mL PFOS in MeOH	THPFOS	5.495	1091458	254	PFOS	5.705	358080	9.517607	95%
3/20/01 15:14	D:\Chem\Rush\R010320.b	CALIB_4	RUSH0022.D	25 ng/mL PFOS in MeOH	THPFOS	5.496	1096171	254	PFOS	5.713	857796	26.7604	107%
3/20/01 15:28	D:\Chem\Rush\R010320.b	CALIB_5	RUSH0023.D	40 ng/mL PFOS in MeOH	THPFOS	5.494	1098872	254	PFOS	5.704	1315734	43.05413	108%
3/20/01 15:42	D:\Chem\Rush\R010320.b	CALIB_6	RUSH0024.D	50 ng/mL PFOS in MeOH	THPFOS	5.495	1099882	254	PFOS	5.719	1620397	54.18493	108%
3/20/01 15:57	D:\Chem\Rush\R010320.b	CALIB_7	RUSH0025.D	75 ng/mL PFOS in MeOH	THPFOS	5.496	1090988	254	PFOS	5.72	2292365	80.39292	107%
3/20/01 16:11	D:\Chem\Rush\R010320.b	CALIB_8	RUSH0026.D	100 ng/mL PFOS in MeOH	THPFOS	5.503	1108459	254	PFOS	5.72	2972281	105.9074	106%
3/20/01 16:25	D:\Chem\Rush\R010320.b	CALIB_9	RUSH0027.D	250 ng/mL PFOS in MeOH	THPFOS	5.49	1106726	254	PFOS	5.707	6500194	263.4048	105%
3/20/01 16:40	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0028.D	400 ng/mL PFOS in MeOH	THPFOS	5.489	1104875	254	PFOS	5.706	9479669	421.7312	105%
3/20/01 16:54	D:\Chem\Rush\R010320.b	CALIB_10	RUSH0029.D	500 ng/mL PFOS in MeOH	THPFOS	5.498	1112297	254	PFOS	5.709	11306172	524.921	105%
3/20/01 17:09	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0030.D	1002 ng/mL PFOS in MeOH	THPFOS	5.495	1114997	254	PFOS	5.712	19396403	1093.974	109%
3/21/01 16:20	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0127.D	0 ng/mL PFOS in MeOH	THPFOS	5.515	953251	254	PFOS	0	0	0	
3/21/01 16:35	D:\Chem\Rush\R010320.b	CALIB_11	RUSH0128.D	2.5 ng/mL PFOS in MeOH	THPFOS	5.512	962548	254	PFOS	5.729	118137	1.935808	
3/21/01 16:49	D:\Chem\Rush\R010320.b	CALIB_12	RUSH0129.D	5 ng/mL PFOS in MeOH	THPFOS	5.505	969368	254	PFOS	5.715	176963	4.131231	83%
3/21/01 17:03	D:\Chem\Rush\R010320.b	CALIB_13	RUSH0130.D	10 ng/mL PFOS in MeOH	THPFOS	5.497	960992	254	PFOS	5.715	295223	8.741338	87%
3/21/01 17:18	D:\Chem\Rush\R010320.b	CALIB_14	RUSH0131.D	25 ng/mL PFOS in MeOH	THPFOS	5.498	958214	254	PFOS	5.715	672893	23.66741	95%
3/21/01 17:32	D:\Chem\Rush\R010320.b	CALIB_15	RUSH0132.D	40 ng/mL PFOS in MeOH	THPFOS	5.496	951968	254	PFOS	5.713	1028748	38.41673	96%
3/21/01 17:46	D:\Chem\Rush\R010320.b	CALIB_16	RUSH0133.D	50 ng/mL PFOS in MeOH	THPFOS	5.502	949455	254	PFOS	5.719	1259208	48.22502	96%
3/21/01 18:01	D:\Chem\Rush\R010320.b	CALIB_17	RUSH0134.D	75 ng/mL PFOS in MeOH	THPFOS	5.49	944258	254	PFOS	5.707	1807434	72.45896	96%
3/21/01 18:15	D:\Chem\Rush\R010320.b	CALIB_18	RUSH0135.D	100 ng/mL PFOS in MeOH	THPFOS	5.488	947155	254	PFOS	5.712	2314201	95.1839	95%
3/21/01 18:29	D:\Chem\Rush\R010320.b	CALIB_19	RUSH0136.D	250 ng/mL PFOS in MeOH	THPFOS	5.481	938982	254	PFOS	5.705	4990995	233.5676	93%
3/21/01 18:44	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0137.D	400 ng/mL PFOS in MeOH	THPFOS	5.494	937508	254	PFOS	5.711	7221977	367.9867	92%
3/21/01 18:58	D:\Chem\Rush\R010320.b	CALIB_20	RUSH0138.D	500 ng/mL PFOS in MeOH	THPFOS	5.481	931253	254	PFOS	5.698	8611158	484.2158	93%
3/21/01 19:12	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0139.D	1002 ng/mL PFOS in MeOH	THPFOS	5.485	925949	254	PFOS	5.702	14684901	959.5687	96%
						Average:	1024229.769			1331499	+30%:		
						Std Dev:	77977.83977			716961	-30%:		
						%RSD:	7.6%						

Inj Date	Batch	SampType	File	Sample Name	Misc In Compound NaRT	Area	Amount		Compound NaRT	Area	Amount	
3/20/01 13:48	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0016.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.738	50239	0
3/20/01 14:02	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0017.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.733	33959	0
3/20/01 17:23	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0031.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.719	53824	0
3/20/01 17:37	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0032.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.718	36113	0
3/20/01 20:44	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0045.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.704	38644	0
3/20/01 20:58	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0046.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.701	30906	0
3/21/01 0:05	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0059.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.714	37789	0
3/21/01 0:19	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0060.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.706	33871	0
3/21/01 3:26	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0073.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.694	42689	0
3/21/01 3:40	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0074.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.697	35794	0
3/21/01 6:47	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0087.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.715	41290	0
3/21/01 7:01	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0088.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.712	36212	0
3/21/01 10:07	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0101.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.733	44171	0
3/21/01 10:22	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0102.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.727	38719	0
3/21/01 13:00	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0113.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.733	50882	0
3/21/01 13:14	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0114.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.72	42724	0
3/21/01 15:52	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0125.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.741	46381	0
3/21/01 16:06	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0126.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.74	42661	0
3/21/01 19:27	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0140.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.718	59486	0

3M Environmental Laboratory

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Inj Date	Batch	SampType	File	Sample Name	Misc In	Compound Name	RT	Area	Amount		Compound Name	RT	Area	Amount	
3/20/01 17:52	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0033.D	1311-5066-S3	THPFOS		5.49	1141140	254		PFOS	5.7	8378440	346.5268	
3/20/01 18:06	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0034.D	1311-5066MS-S3	THPFOS		5.489	972009	254		PFOS	5.713	11297958	626.7308	
3/20/01 18:20	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0035.D	1311-5100-S3	THPFOS		5.483	1164447	254		PFOS	5.7	10830182	467.7061	
3/20/01 18:35	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0036.D	1311-5101-S3	THPFOS		5.484	1149419	254		PFOS	5.701	8920100	371.419	
3/20/01 18:49	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0037.D	1311-5102-S3	THPFOS		5.482	1150191	254		PFOS	5.692	11003403	485.0679	
3/20/01 19:03	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0038.D	1311-5102MS-S3	THPFOS		5.486	971562	254		PFOS	5.696	14359682	869.5144	
3/20/01 19:18	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0039.D	1311-5136-S3	THPFOS		5.481	1143796	254		PFOS	5.698	16261734	823.9911	
3/20/01 19:32	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0040.D	1311-5137-S3	THPFOS		5.489	1145084	254		PFOS	5.706	16806125	861.0889	
3/20/01 19:46	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0041.D	1311-5138-S3	THPFOS		5.488	1165917	254		PFOS	5.698	18715781	972.5325	
3/20/01 20:01	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0042.D	1311-5138MS-S3	THPFOS		5.476	963588	254		PFOS	5.686	21485315	1571.297	
3/20/01 20:15	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0043.D	5 ng/mL PFOS in MeOH	THPFOS		5.474	1116533	254		PFOS	5.691	240399	5.337948	106.8%
3/20/01 20:29	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0044.D	250 ng/mL PFOS in MeOH	THPFOS		5.467	1106644	254		PFOS	5.684	8190150	248.3279	99.1%
3/20/01 21:12	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0047.D	1311-5172-S3	THPFOS		5.473	1129661	254		PFOS	5.69	11805672	532.2945	
3/20/01 21:27	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0048.D	1311-5173-S3	THPFOS		5.47	1115042	254		PFOS	5.687	10778461	491.643	
3/20/01 21:41	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0049.D	1311-5174-S3	THPFOS		5.474	1104866	254		PFOS	5.684	10755750	496.1706	
3/20/01 21:55	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0050.D	1311-5174MS-S3	THPFOS		5.464	929426	254		PFOS	5.688	13780741	873.3741	
3/20/01 22:10	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0051.D	1311-5208-S3	THPFOS		5.47	1392582	254	ISTD>130%	PFOS	5.68	9686288	332.321	
3/20/01 22:24	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0052.D	1311-5209-S3	THPFOS		5.474	1334258	254	ISTD>130%	PFOS	5.691	7370018	244.5963	
3/20/01 22:38	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0053.D	1311-5210-S3	THPFOS		5.484	1299165	254		PFOS	5.701	7352450	251.8495	
3/20/01 22:53	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0054.D	1311-5210MS-S3	THPFOS		5.481	1042408	254		PFOS	5.698	10536384	521.0775	
3/20/01 23:07	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0055.D	1311-5031-S3	THPFOS		5.494	1189027	254		PFOS	5.718	284331	6.217634	
3/20/01 23:22	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0056.D	1311-5032-S3	THPFOS		5.494	1136514	254		PFOS	5.711	263226	5.939702	
3/20/01 23:36	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0057.D	5 ng/mL PFOS in MeOH	THPFOS		5.484	1112285	254		PFOS	5.708	197941	3.962167	79.2%
3/20/01 23:50	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0058.D	250 ng/mL PFOS in MeOH	THPFOS		5.481	1096839	254		PFOS	5.705	6089384	245.5533	98.0%
3/21/01 0:33	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0061.D	1311-5033-S3	THPFOS		5.48	1119517	254		PFOS	5.697	317716	7.871924	
3/21/01 0:48	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0062.D	1311-5033MS-S3	THPFOS		5.474	925302	254		PFOS	5.698	4503593	210.2997	
3/21/01 1:02	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0063.D	1311-5067-S3	THPFOS		5.474	1099092	254		PFOS	5.692	7145864	298.1447	
3/21/01 1:16	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0064.D	1311-5068-S3	THPFOS		5.474	1103798	254		PFOS	5.691	8366361	360.5895	
3/21/01 1:31	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0065.D	1311-5069-S3	THPFOS		5.472	1103736	254		PFOS	5.689	7936905	337.662	
3/21/01 1:45	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0066.D	1311-5069MS-S3	THPFOS		5.472	916968	254		PFOS	5.689	11534998	697.0305	
3/21/01 2:00	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0067.D	1311-5103-S3	THPFOS		5.474	1094601	254		PFOS	5.691	16186690	870.1489	
3/21/01 2:14	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0068.D	1311-5104-S3	THPFOS		5.469	1093215	254		PFOS	5.686	15234507	801.5557	
3/21/01 2:28	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0069.D	1311-5105-S3	THPFOS		5.48	1108623	254		PFOS	5.69	14183081	713.1438	
3/21/01 2:43	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0070.D	1311-5105MS-S3	THPFOS		5.469	896026	254		PFOS	5.679	18427132	1394.184	
3/21/01 2:57	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0071.D	5 ng/mL PFOS in MeOH	THPFOS		5.467	1076701	254		PFOS	5.684	230960	5.308384	106.2%
3/21/01 3:11	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0072.D	250 ng/mL PFOS in MeOH	THPFOS		5.46	1068295	254		PFOS	5.677	5855451	242.3321	96.7%
3/21/01 3:54	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0075.D	1311-5139-S3	THPFOS		5.466	1114973	254		PFOS	5.676	27484446	1826.764	
3/21/01 4:09	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0076.D	1311-5140-S3	THPFOS		5.46	1101102	254		PFOS	5.67	26318468	1743.684	
3/21/01 4:23	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0077.D	1311-5141-S3	THPFOS		5.468	1099381	254		PFOS	5.678	25601434	1676.69	
3/21/01 4:38	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0078.D	1311-5141MS-S3	THPFOS		5.467	904101	254		PFOS	5.677	28444497	2662.41	
3/21/01 4:52	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0079.D	1311-5211-S3	THPFOS		5.462	1297195	254		PFOS	5.679	12510960	490.2051	
3/21/01 5:06	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0080.D	1311-5212-S3	THPFOS		5.474	1309423	254		PFOS	5.691	12718685	494.7347	
3/21/01 5:21	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0081.D	1311-5213-S3	THPFOS		5.476	1316725	254		PFOS	5.686	14206011	567.6869	
3/21/01 5:35	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0082.D	1311-5213MS-S3	THPFOS		5.48	1041110	254		PFOS	5.691	16461602	955.5121	
3/21/01 5:49	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0083.D	1311-5034-S3	THPFOS		5.507	1163007	254		PFOS	5.724	786091	22.65781	
3/21/01 6:04	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0084.D	1311-5035-S3	THPFOS		5.5	1101098	254		PFOS	5.717	579479	16.95932	
3/21/01 6:18	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0085.D	5 ng/mL PFOS in MeOH	THPFOS		5.498	1083524	254		PFOS	5.715	194687	4.02545	80.5%
3/21/01 6:32	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0086.D	250 ng/mL PFOS in MeOH	THPFOS		5.484	1071583	254		PFOS	5.701	5756548	236.5543	94.4%
3/21/01 7:15	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0089.D	1311-5036-S3	THPFOS		5.487	1075235	254		PFOS	5.704	1372684	46.22885	
3/21/01 7:30	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0090.D	1311-5036MS-S3	THPFOS		5.482	892740	254		PFOS	5.699	5063682	252.5315	

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3/21/01 7:44	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0091.D	1311-5175-S3	THPFOS	5.477	594727	254	ISTD<70%	PFOS	5.687	12480311	1436.243		5 UL INJECTION VOLUME
3/21/01 7:58	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0092.D	1311-5176-S3	THPFOS	5.48	584723	254	ISTD<70%	PFOS	5.69	13594600	1672.643		5 UL INJECTION VOLUME
3/21/01 8:13	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0093.D	1311-5177-S3	THPFOS	5.461	586756	254	ISTD<70%	PFOS	5.671	12514844	1471.126		5 UL INJECTION VOLUME
3/21/01 8:27	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0094.D	1311-5177MS-S3	THPFOS	5.474	493241	254	ISTD<70%	PFOS	5.677	14781329	2466.895		5 UL INJECTION VOLUME
3/21/01 8:41	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0095.D	1311-5070-S3	THPFOS	5.48	585323	254	ISTD<70%	PFOS	5.69	16506784	2244.559		5 UL INJECTION VOLUME
3/21/01 8:56	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0096.D	1311-5071-S3	THPFOS	5.482	583958	254	ISTD<70%	PFOS	5.692	14008293	1753.191		5 UL INJECTION VOLUME
3/21/01 9:10	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0097.D	1311-5072-S3	THPFOS	5.487	585431	254	ISTD<70%	PFOS	5.697	20965681	3271.008		5 UL INJECTION VOLUME
3/21/01 9:24	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0098.D	1311-5072MS-S3	THPFOS	5.48	486275	254	ISTD<70%	PFOS	5.683	21004840	4437.245		5 UL INJECTION VOLUME
3/21/01 9:39	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0099.D	5 ng/mL PFOS in MeOH	THPFOS	5.488	1043914	254		PFOS	5.705	224003	5.311072	106.2%	
3/21/01 9:53	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0100.D	250 ng/mL PFOS in MeOH	THPFOS	5.488	1030333	254		PFOS	5.705	5578114	238.7682	95.3%	
3/21/01 10:36	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0103.D	1311-5106-S3	THPFOS	5.488	567516	254	ISTD<70%	PFOS	5.678	18483679	2811.823		5 UL INJECTION VOLUME
3/21/01 10:51	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0104.D	1311-5107-S3	THPFOS	5.478	575234	254	ISTD<70%	PFOS	5.695	21906531	3611.765		5 UL INJECTION VOLUME
3/21/01 11:05	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0105.D	1311-5108-S3	THPFOS	5.487	575785	254	ISTD<70%	PFOS	5.697	22382831	3734.179		5 UL INJECTION VOLUME
3/21/01 11:19	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0106.D	1311-5108MS-S3	THPFOS	5.483	479125	254	ISTD<70%	PFOS	5.693	25723614	6383.82		5 UL INJECTION VOLUME
3/21/01 11:33	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0107.D	1311-5142-S3	THPFOS	5.479	562160	254	ISTD<70%	PFOS	5.697	43895144	12220.39		5 UL INJECTION VOLUME
3/21/01 11:48	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0108.D	1311-5143-S3	THPFOS	5.487	564713	254	ISTD<70%	PFOS	5.705	45027123	12681.8		5 UL INJECTION VOLUME
3/21/01 12:02	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0109.D	1311-5144-S3	THPFOS	5.495	562369	254	ISTD<70%	PFOS	5.705	40886156	10776.59		5 UL INJECTION VOLUME
3/21/01 12:16	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0110.D	1311-5144MS-S3	THPFOS	5.496	469121	254	ISTD<70%	PFOS	5.706	41047544	14963.72		5 UL INJECTION VOLUME
3/21/01 12:31	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0111.D	5 ng/mL PFOS in MeOH	THPFOS	5.505	1007161	254		PFOS	5.729	285240	7.850201	157.0%	
3/21/01 12:45	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0112.D	250 ng/mL PFOS in MeOH	THPFOS	5.494	990753	254		PFOS	5.704	5343857	237.702	94.9%	
3/21/01 13:28	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0115.D	1311-5214-S3	THPFOS	5.475	597930	254	ISTD<70%	PFOS	5.678	19058110	2717.521		5 UL INJECTION VOLUME
3/21/01 13:43	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0116.D	1311-5215-S3	THPFOS	5.494	601361	254	ISTD<70%	PFOS	5.697	21568804	3278.966		5 UL INJECTION VOLUME
3/21/01 13:57	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0117.D	1311-5216-S3	THPFOS	5.495	602126	254	ISTD<70%	PFOS	5.705	23695132	3809.243		5 UL INJECTION VOLUME
3/21/01 14:11	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0118.D	1311-5216MS-S3	THPFOS	5.495	493982	254	ISTD<70%	PFOS	5.705	24318664	5515.216		5 UL INJECTION VOLUME
3/21/01 14:26	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0119.D	1311-5178-S3	THPFOS	5.495	256310	254	ISTD<70%	PFOS	5.705	13564243	6228.945		2 UL INJECTION VOLUME
3/21/01 14:40	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0120.D	1311-5179-S3	THPFOS	5.489	243982	254	ISTD<70%	PFOS	5.699	13542180	6755.161		2 UL INJECTION VOLUME
3/21/01 14:54	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0121.D	1311-5180-S3	THPFOS	5.495	235402	254	ISTD<70%	PFOS	5.705	15594555	9159.363		2 UL INJECTION VOLUME
3/21/01 15:09	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0122.D	1311-5180MS-S3	THPFOS	5.502	207254	254	ISTD<70%	PFOS	5.712	16464813	12599.65		2 UL INJECTION VOLUME
3/21/01 15:23	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0123.D	5 ng/mL PFOS in MeOH	THPFOS	5.507	980889	254		PFOS	5.732	203009	5.030218	100.6%	
3/21/01 15:37	D:\Chem\Rush\R010320.b	SAMPLE	RUSH0124.D	250 ng/mL PFOS in MeOH	THPFOS	5.516	965254	254		PFOS	5.733	5141212	234.1441	93.5%	

H010405 external standard quant.xls

Sample Batch H010405.b, analyzed on Hillary 04-05-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 10-1002 ng/mL
Batch method: H010405.m (external Standard Quant)

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound	NaRT	Area	Amount		Compound	NaRT	Area	Amount	
4/6/01 12:53	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0016.D	0 ng/mL PFOS in MeOH		THPFOS	5.111	853901	254		PFOS	0	0	0	
4/6/01 13:08	D:\Chem\Hillary\H010405.b	CALIB_1	HILL0017.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.121	880305	254		PFOS	5.331	64194	0	
4/6/01 13:22	D:\Chem\Hillary\H010405.b	CALIB_2	HILL0018.D	5 ng/mL PFOS in MeOH		THPFOS	5.12	900514	254		PFOS	5.33	113000	2.152886	43%
4/6/01 13:36	D:\Chem\Hillary\H010405.b	CALIB_3	HILL0019.D	10 ng/mL PFOS in MeOH		THPFOS	5.107	884801	254		PFOS	5.324	189968	6.660505	67%
4/6/01 13:51	D:\Chem\Hillary\H010405.b	CALIB_4	HILL0020.D	25 ng/mL PFOS in MeOH		THPFOS	5.106	891555	254		PFOS	5.323	495541	24.66062	99%
4/6/01 14:05	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0021.D	40 ng/mL PFOS in MeOH		THPFOS	5.121	895606	254		PFOS	5.331	779774	41.55324	104%
4/6/01 14:20	D:\Chem\Hillary\H010405.b	CALIB_5	HILL0022.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.119	905309	254		PFOS	5.33	971274	53.01579	106%
4/6/01 14:34	D:\Chem\Hillary\H010405.b	CALIB_6	HILL0023.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.121	901986	254		PFOS	5.331	1469171	83.12445	111%
4/6/01 14:48	D:\Chem\Hillary\H010405.b	CALIB_7	HILL0024.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.119	902929	254		PFOS	5.329	1921199	110.8424	111%
4/6/01 15:03	D:\Chem\Hillary\H010405.b	CALIB_8	HILL0025.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.112	921590	254		PFOS	5.322	4651125	285.988	114%
4/6/01 15:17	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0026.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.111	890229	254		PFOS	5.335	6791612	432.6167	108%
4/6/01 15:31	D:\Chem\Hillary\H010405.b	CALIB_9	HILL0027.D	501 ng/mL PFOS in MeOH		THPFOS	5.112	885051	254		PFOS	5.322	8184382	532.4149	106%
4/6/01 15:46	D:\Chem\Hillary\H010405.b	CALIB_10	HILL0028.D	1002 ng/mL PFOS in MeOH		THPFOS	5.113	906846	254		PFOS	5.33	14871358	1059.765	106%
4/7/01 4:57	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0083.D	0 ng/mL PFOS in MeOH		THPFOS	5.098	909918	254		PFOS	0	0	0	
4/7/01 5:11	D:\Chem\Hillary\H010405.b	CALIB_11	HILL0084.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.092	901288	254		PFOS	5.302	53650	0	
4/7/01 5:26	D:\Chem\Hillary\H010405.b	CALIB_12	HILL0085.D	5 ng/mL PFOS in MeOH		THPFOS	5.098	907830	254		PFOS	5.301	95517	1.130466	23%
4/7/01 5:40	D:\Chem\Hillary\H010405.b	CALIB_13	HILL0086.D	10 ng/mL PFOS in MeOH		THPFOS	5.1	893968	254		PFOS	5.31	158439	4.812732	48%
4/7/01 5:55	D:\Chem\Hillary\H010405.b	CALIB_14	HILL0087.D	25 ng/mL PFOS in MeOH		THPFOS	5.106	866284	254		PFOS	5.316	425595	20.52568	82%
4/7/01 6:09	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0088.D	40 ng/mL PFOS in MeOH		THPFOS	5.101	854670	254		PFOS	5.311	675739	35.35348	88%
4/7/01 6:23	D:\Chem\Hillary\H010405.b	CALIB_15	HILL0089.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.1	848217	254		PFOS	5.31	847857	45.62096	91%
4/7/01 6:38	D:\Chem\Hillary\H010405.b	CALIB_16	HILL0090.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.101	818486	254		PFOS	5.311	1278693	71.55369	95%
4/7/01 6:52	D:\Chem\Hillary\H010405.b	CALIB_17	HILL0091.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.106	824040	254		PFOS	5.309	1665685	95.12972	95%
4/7/01 7:07	D:\Chem\Hillary\H010405.b	CALIB_18	HILL0092.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.107	839800	254		PFOS	5.31	4111457	250.3098	100%
4/7/01 7:21	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0093.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.105	795504	254		PFOS	5.308	6004817	377.7554	94%
4/7/01 7:35	D:\Chem\Hillary\H010405.b	CALIB_19	HILL0094.D	501 ng/mL PFOS in MeOH		THPFOS	5.104	790146	254		PFOS	5.314	7263676	466.0545	93%
4/7/01 7:50	D:\Chem\Hillary\H010405.b	CALIB_20	HILL0095.D	501 ng/mL PFOS in MeOH		THPFOS	5.104	796759	254		PFOS	5.314	13221474	922.2377	92%

Average: 871828.1538 1133377 +30%:
Std Dev: 39409.57909 610280 -30%:
%RSD: 4.5%

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound	NaRT	Area	Amount		Compound	NaRT	Area	Amount	
4/6/01 12:25	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0014.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 12:39	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0015.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 16:00	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0029.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 16:14	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0030.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 19:21	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0043.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 19:36	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0044.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 22:43	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0057.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/6/01 22:57	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0058.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 1:50	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0070.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 2:04	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0071.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 4:28	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0081.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 4:43	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0082.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 8:04	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0096.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/7/01 8:18	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0097.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	

cmc 4/10/01
pg 1062

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound NaRT	Area	Amount		Compound NaRT	Area	Amount		
4/6/01 16:29	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0031.D	2mg/L PFOS Study Number E00-1311	1311-5043-S1	THPFOS 5.112	631638	254		PFOS 5.329	1594908	90.79793		Clay
4/6/01 16:43	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0032.D	2mg/L PFOS Study Number E00-1311	1311-5044-S1	THPFOS 5.12	845717	254		PFOS 5.33	1011666	55.44188		Clay
4/6/01 16:58	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0033.D	2mg/L PFOS Study Number E00-1311	1311-5045-S1	THPFOS 5.113	845296	254		PFOS 5.323	1801969	103.4959		Clay
4/6/01 17:12	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0034.D	2mg/L PFOS Study Number E00-1311	1311-5045MS-S1	THPFOS 5.112	691267	254		PFOS 5.322	4370912	267.3979		Clay
4/6/01 17:26	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0035.D	10mg/L PFOS Study Number E00-1311	1311-5049-S1	THPFOS 5.106	895152	254		PFOS 5.323	769270	42.1201		Clay
4/6/01 17:41	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0036.D	10mg/L PFOS Study Number E00-1311	1311-5050-S1	THPFOS 5.115	904138	254		PFOS 5.333	986799	53.94793		Clay
4/6/01 17:55	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0037.D	10mg/L PFOS Study Number E00-1311	1311-5051-S1	THPFOS 5.109	908952	254		PFOS 5.326	730034	38.58667		Clay
4/6/01 18:09	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0038.D	10mg/L PFOS Study Number E00-1311	1311-5051MS-S1	THPFOS 5.105	745233	254		PFOS 5.322	3483461	209.4461		Clay
4/6/01 18:24	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0039.D	2mg/L PFOS Study Number E00-1311	1311-5079-S1	THPFOS 5.112	840577	254		PFOS 5.329	1692254	96.75814		Clay Loam
4/6/01 18:38	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0040.D	2mg/L PFOS Study Number E00-1311	1311-5080-S1	THPFOS 5.111	843047	254		PFOS 5.321	2112598	122.6887		Clay Loam
4/6/01 18:52	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0041.D	5 ng/mL PFOS in MeOH		THPFOS 5.113	941520	254		PFOS 5.323	112770	2.139428	42.8%	
4/6/01 19:07	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0042.D	25O.5 ng/mL PFOS in MeOH		THPFOS 5.116	937854	254		PFOS 5.326	4597708	282.4334	112.7%	
4/6/01 19:50	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0045.D	2mg/L PFOS Study Number E00-1311	1311-5081-S1	THPFOS 5.112	852429	254		PFOS 5.329	1619584	92.30717		Clay Loam
4/6/01 20:04	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0046.D	2mg/L PFOS Study Number E00-1311	1311-5081MS-S1	THPFOS 5.118	688430	254		PFOS 5.328	4093613	249.139		Clay Loam
4/6/01 20:19	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0047.D	10mg/L PFOS Study Number E00-1311	1311-5085-S1	THPFOS 5.108	911967	254		PFOS 5.318	1001786	54.84818		Clay Loam
4/6/01 20:33	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0048.D	10mg/L PFOS Study Number E00-1311	1311-5086-S1	THPFOS 5.112	919538	254		PFOS 5.322	996187	54.51181		Clay Loam
4/6/01 20:48	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0049.D	10mg/L PFOS Study Number E00-1311	1311-5087-S1	THPFOS 5.106	916068	254		PFOS 5.323	998588	54.65605		Clay Loam
4/6/01 21:02	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0050.D	10mg/L PFOS Study Number E00-1311	1311-5087MS-S1	THPFOS 5.112	732339	254		PFOS 5.323	3717782	224.6111		Clay Loam
4/6/01 21:16	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0051.D	0mg/L PFOS Study Number E00-1311	1311-5091-S1	THPFOS 5.114	884599	254		PFOS 5.324	760291	40.39072		Clay Loam
4/6/01 21:31	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0052.D	0mg/L PFOS Study Number E00-1311	1311-5092-S1	THPFOS 5.109	844692	254		PFOS 5.319	213559	8.044223		Clay Loam
4/6/01 21:45	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0053.D	0mg/L PFOS Study Number E00-1311	1311-5093-S1	THPFOS 5.104	809811	254		PFOS 5.322	113509	2.182657		Clay Loam
4/6/01 21:59	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0054.D	0mg/L PFOS Study Number E00-1311	1311-5093MS-S1	THPFOS 5.098	672064	254		PFOS 5.315	3059833	182.2781		Clay Loam
4/6/01 22:14	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0055.D	5 ng/mL PFOS in MeOH		THPFOS 5.112	860662	254		PFOS 5.322	109900	1.971553	39.4%	
4/6/01 22:28	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0056.D	25O.5 ng/mL PFOS in MeOH		THPFOS 5.098	872477	254		PFOS 5.315	4451710	272.7439	108.9%	
4/6/01 23:11	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0059.D	10mg/L PFOS Study Number E00-1311	1311-5121-S1	THPFOS 5.105	809071	254		PFOS 5.322	6644129	422.2516		Sandy Loam
4/6/01 23:26	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0060.D	10mg/L PFOS Study Number E00-1311	1311-5122-S1	THPFOS 5.107	808820	254		PFOS 5.317	7503267	483.1776		Sandy Loam
4/6/01 23:40	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0061.D	10mg/L PFOS Study Number E00-1311	1311-5123-S1	THPFOS 5.105	809437	254		PFOS 5.322	6451764	408.7904		Sandy Loam
4/6/01 23:55	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0062.D	10mg/L PFOS Study Number E00-1311	1311-5123MS-S1	THPFOS 5.105	646037	254		PFOS 5.323	6372595	546.1667		Sandy Loam
4/7/01 0:09	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0063.D	10mg/L PFOS Study Number E00-1311	1311-5157-S1	THPFOS 5.111	853122	254		PFOS 5.322	1011148	55.41063		Sediment
4/7/01 0:23	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0064.D	10mg/L PFOS Study Number E00-1311	1311-5158-S1	THPFOS 5.105	888681	254		PFOS 5.315	1599452	91.07577		Sediment
4/7/01 0:38	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0065.D	10mg/L PFOS Study Number E00-1311	1311-5159-S1	THPFOS 5.1	854113	254		PFOS 5.31	1567814	89.14206		Sediment
4/7/01 0:52	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0066.D	10mg/L PFOS Study Number E00-1311	1311-5159MS-S1	THPFOS 5.105	700905	254		PFOS 5.315	4173504	254.3854		Sediment
4/7/01 1:07	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0067.D	0mg/L PFOS Study Number E00-1311	1311-5181-S1	THPFOS 5.098	1281548	254	ISTD>130%	PFOS 5.308	542210	27.42438		Sludge
4/7/01 1:21	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0068.D	5 ng/mL PFOS in MeOH		THPFOS 5.1	999732	254		PFOS 5.31	103957	1.623974	32.5%	
4/7/01 1:36	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0069.D	25O.5 ng/mL PFOS in MeOH		THPFOS 5.102	916425	254		PFOS 5.312	4298803	262.6366	104.8%	
4/7/01 2:19	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0072.D	0mg/L PFOS Study Number E00-1311	1311-5182-S1	THPFOS 5.097	1282301	254	ISTD>130%	PFOS 5.307	144727	4.009689		Sludge
4/7/01 2:33	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0073.D	0mg/L PFOS Study Number E00-1311	1311-5183-S1	THPFOS 5.091	1283570	254	ISTD>130%	PFOS 0	0	0		Sludge
4/7/01 2:47	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0074.D	0mg/L PFOS Study Number E00-1311	1311-5183MS-S1	THPFOS 5.091	1122340	254		PFOS 5.301	2467820	144.6477		Sludge
4/7/01 3:02	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0075.D	0mg/L PFOS Study Number E00-1311	1311-5199-S1	THPFOS 5.094	1275724	254	ISTD>130%	PFOS 0	0	0		Sludge
4/7/01 3:16	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0076.D	0mg/L PFOS Study Number E00-1311	1311-5200-S1	THPFOS 5.092	1295458	254	ISTD>130%	PFOS 0	0	0		Sludge
4/7/01 3:31	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0077.D	0mg/L PFOS Study Number E00-1311	1311-5201-S1	THPFOS 0	0	0	ISTD<70%	PFOS 0	0	0		Sludge
4/7/01 3:45	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0078.D	0mg/L PFOS Study Number E00-1311	1311-5201MS-S1	THPFOS 0	0	0	ISTD<70%	PFOS 5.295	2260129	131.8644		Sludge
4/7/01 3:59	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0079.D	5 ng/mL PFOS in MeOH		THPFOS 5.085	1122048	254		PFOS 5.295	95065	1.10404	22.1%	
4/7/01 4:14	D:\Chem\Hillary\H010405.b	SAMPLE	HILL0080.D	25O.5 ng/mL PFOS in MeOH		THPFOS 5.091	1051408	254		PFOS 5.308	4062781	247.1173	98.6%	

Sample Batch H010402.b, analyzed on Hillary 04-02-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: ~~2.5~~1002 ng/mL
Batch method: H010402.m

5.0 (2e) cmc 5/22/01

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount		Compound Na	RT	Area	Amount	
4/2/01 12:36	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0016.D	0 ng/mL PFOS in MeOH	THPFOS		5.104	884438	254		PFOS	0	0	0	
4/2/01 12:51	D:\Chem\Hillary\H010402.b	CALIB_1	HILL0017.D	2.5 ng/mL PFOS in MeOH	THPFOS		5.099	891647	254		PFOS	5.323	76123	2.937764	
4/2/01 13:05	D:\Chem\Hillary\H010402.b	CALIB_2	HILL0018.D	5 ng/mL PFOS in MeOH	THPFOS		5.105	873155	254		PFOS	5.322	112527	4.927384	99%
4/2/01 13:20	D:\Chem\Hillary\H010402.b	CALIB_3	HILL0019.D	10 ng/mL PFOS in MeOH	THPFOS		5.099	914977	254		PFOS	5.323	219535	10.02044	100%
4/2/01 13:34	D:\Chem\Hillary\H010402.b	CALIB_4	HILL0020.D	25 ng/mL PFOS in MeOH	THPFOS		5.105	941733	254		PFOS	5.329	584068	27.60439	110%
4/2/01 13:48	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0021.D	40 ng/mL PFOS in MeOH	THPFOS		5.107	960037	254		PFOS	5.331	903606	42.62353	107%
4/2/01 14:03	D:\Chem\Hillary\H010402.b	CALIB_5	HILL0022.D	50.1 ng/mL PFOS in MeOH	THPFOS		5.104	936141	254		PFOS	5.335	1124594	54.9098	110%
4/2/01 14:17	D:\Chem\Hillary\H010402.b	CALIB_6	HILL0023.D	75.1 ng/mL PFOS in MeOH	THPFOS		5.115	916274	254		PFOS	5.332	1641678	83.18952	111%
4/2/01 14:32	D:\Chem\Hillary\H010402.b	CALIB_7	HILL0024.D	100.2 ng/mL PFOS in MeOH	THPFOS		5.114	940003	254		PFOS	5.331	2175779	108.693	108%
4/2/01 14:46	D:\Chem\Hillary\H010402.b	CALIB_8	HILL0025.D	250.5 ng/mL PFOS in MeOH	THPFOS		5.107	893340	254		PFOS	5.331	4798973	266.3096	~~66%~~ (1) 1069.
4/2/01 15:00	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0026.D	400.8 ng/mL PFOS in MeOH	THPFOS		5.112	922772	254		PFOS	5.336	7485094	419.9087	105%
4/2/01 15:15	D:\Chem\Hillary\H010402.b	CALIB_9	HILL0027.D	501 ng/mL PFOS in MeOH	THPFOS		5.111	988724	254		PFOS	5.328	9634446	517.0107	103%
4/2/01 15:29	D:\Chem\Hillary\H010402.b	CALIB_10	HILL0028.D	1002 ng/mL PFOS in MeOH	THPFOS		5.105	893327	254		PFOS	5.329	15519974	1025.7	102%
4/3/01 3:14	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0077.D	0 ng/mL PFOS in MeOH	THPFOS		5.106	1211876	254		PFOS	0	0	0	
4/3/01 3:28	D:\Chem\Hillary\H010402.b	CALIB_11	HILL0078.D	2.5 ng/mL PFOS in MeOH	THPFOS		5.105	1169631	254		PFOS	5.322	76339	2.019159	
4/3/01 3:43	D:\Chem\Hillary\H010402.b	CALIB_12	HILL0079.D	5 ng/mL PFOS in MeOH	THPFOS		5.108	1115864	254		PFOS	5.325	108804	3.492407	70%
4/3/01 3:57	D:\Chem\Hillary\H010402.b	CALIB_13	HILL0080.D	10 ng/mL PFOS in MeOH	THPFOS		5.097	1128520	254		PFOS	5.321	209068	7.510677	75%
4/3/01 4:11	D:\Chem\Hillary\H010402.b	CALIB_14	HILL0081.D	25 ng/mL PFOS in MeOH	THPFOS		5.105	1132730	254		PFOS	5.322	565907	22.00294	88%
4/3/01 4:26	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0082.D	40 ng/mL PFOS in MeOH	THPFOS		5.104	1144180	254		PFOS	5.329	929336	36.56921	91%
4/3/01 4:40	D:\Chem\Hillary\H010402.b	CALIB_15	HILL0083.D	50.1 ng/mL PFOS in MeOH	THPFOS		5.112	1088719	254		PFOS	5.338	1114128	46.49134	93%
4/3/01 4:54	D:\Chem\Hillary\H010402.b	CALIB_16	HILL0084.D	75.1 ng/mL PFOS in MeOH	THPFOS		5.105	1050910	254		PFOS	5.322	1636985	71.91555	96%
4/3/01 5:09	D:\Chem\Hillary\H010402.b	CALIB_17	HILL0085.D	100.2 ng/mL PFOS in MeOH	THPFOS		5.107	1034615	254		PFOS	5.331	2152918	97.2404	97%
4/3/01 5:23	D:\Chem\Hillary\H010402.b	CALIB_18	HILL0086.D	250.5 ng/mL PFOS in MeOH	THPFOS		5.105	969248	254		PFOS	5.329	4767587	242.0323	~~80%~~ (1) 979.
4/3/01 5:38	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0087.D	400.8 ng/mL PFOS in MeOH	THPFOS		5.105	988215	254		PFOS	5.329	7513403	390.5142	97%
4/3/01 5:52	D:\Chem\Hillary\H010402.b	CALIB_19	HILL0088.D	501 ng/mL PFOS in MeOH	THPFOS		5.106	1060823	254		PFOS	5.33	9712588	481.5275	96%
4/3/01 6:06	D:\Chem\Hillary\H010402.b	CALIB_20	HILL0089.D	1002 ng/mL PFOS in MeOH	THPFOS		5.107	928338	254		PFOS	5.331	15484980	975.7589	97%

Average: 999239.808
Std Dev: 102082.113
%RSD: 10.2%

1299012 +30%:
699468 -30%:

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount		Compound Na	RT	Area	Amount
4/2/01 12:08	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0014.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.405	18449	0
4/2/01 12:22	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0015.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/2/01 15:43	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0029.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.406	33972	0
4/2/01 15:58	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0030.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.42	11581	0
4/2/01 16:12	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0031.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/2/01 19:19	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0044.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/2/01 19:33	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0045.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/2/01 21:14	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0052.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/2/01 21:28	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0053.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/2/01 21:57	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0055.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/2/01 22:26	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0057.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/2/01 22:54	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0059.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/2/01 23:23	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0061.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/2/01 23:52	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0063.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/3/01 0:21	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0065.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/3/01 0:50	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0067.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/3/01 1:19	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0069.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/3/01 1:47	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0071.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/3/01 2:45	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0075.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/3/01 2:59	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0076.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0
4/3/01 6:21	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0090.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.425	36059	0
4/3/01 6:35	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0091.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	0	0	0

(1)(2e) incorrectly calculated
emc 5/17/01

3M Environmental Laboratory

CMC 4/4/01 pg 1 of 2

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount		Compound Na	RT	Area	Amount	
4/2/01 16:26	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0032.D	2mg/L PFOS Study Number E00-1311	THPFOS		5.115	1099043	254		PFOS	5.339	91786	2.852832	
4/2/01 16:41	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0033.D	2mg/L PFOS Study Number E00-1311	THPFOS		5.112	840525	254		PFOS	5.336	3307625	190.4263	
4/2/01 16:55	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0034.D	5mg/L PFOS Study Number E00-1311	THPFOS		5.119	1140615	254		PFOS	5.336	250070	9.070036	
4/2/01 17:09	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0035.D	5mg/L PFOS Study Number E00-1311	THPFOS		5.134	1121827	254		PFOS	5.358	255601	9.465038	
4/2/01 17:24	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0036.D	5mg/L PFOS Study Number E00-1311	THPFOS		5.121	1105544	254		PFOS	5.345	202135	7.399684	
4/2/01 17:38	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0037.D	5mg/L PFOS Study Number E00-1311	THPFOS		5.119	914972	254		PFOS	5.343	3416478	180.0553	
4/2/01 17:53	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0038.D	10mg/L PFOS Study Number E00-1311	THPFOS		5.126	1092485	254		PFOS	5.35	415060	16.4674	
4/2/01 18:07	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0039.D	10mg/L PFOS Study Number E00-1311	THPFOS		5.127	1128533	254		PFOS	5.351	524864	20.40436	
4/2/01 18:21	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0040.D	10mg/L PFOS Study Number E00-1311	THPFOS		5.12	1141776	254		PFOS	5.351	516752	19.82583	
4/2/01 18:36	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0041.D	10mg/L PFOS Study Number E00-1311	THPFOS		5.125	912742	254		PFOS	5.349	3833223	204.1541	
4/2/01 18:50	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0042.D	5 ng/mL PFOS in MeOH	THPFOS		5.127	929004	254		PFOS	5.351	115605	4.724463	94.5%
4/2/01 19:04	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0043.D	25O.5 ng/mL PFOS in MeOH	THPFOS		5.127	875517	254		PFOS	5.344	4809365	272.8592	108.9%
4/2/01 19:48	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0046.D	50mg/L PFOS Study Number E00-1311	THPFOS		5.133	1161781	254		PFOS	5.35	2608914	105.3019	
4/2/01 20:02	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0047.D	50mg/L PFOS Study Number E00-1311	THPFOS		5.133	1078087	254		PFOS	5.35	2143323	92.71704	
4/2/01 20:16	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0048.D	50mg/L PFOS Study Number E00-1311	THPFOS		5.127	1116896	254		PFOS	5.351	1984759	82.4808	
4/2/01 20:31	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0049.D	50mg/L PFOS Study Number E00-1311	THPFOS		5.128	951406	254		PFOS	5.353	4992173	259.5911	
4/2/01 20:45	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0050.D	5 ng/mL PFOS in MeOH	THPFOS		5.128	924450	254		PFOS	5.345	121763	5.05741	101.1%
4/2/01 20:59	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0051.D	25O.5 ng/mL PFOS in MeOH	THPFOS		5.119	875539	254		PFOS	5.343	4808081	272.7724	108.9%
4/2/01 21:43	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0054.D	0mg/L PFOS Study Number E00-1311	THPFOS		5.112	1559964	254	ISTD>130%	PFOS	0	0	0	
4/2/01 22:11	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0056.D	0mg/L PFOS Study Number E00-1311	THPFOS		5.111	1548480	254	ISTD>130%	PFOS	0	0	0	
4/2/01 22:40	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0058.D	0mg/L PFOS Study Number E00-1311	THPFOS		5.107	1539293	254	ISTD>130%	PFOS	0	0	0	
4/2/01 23:09	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0060.D	0mg/L PFOS Study Number E00-1311	THPFOS		5.099	1521208	254	ISTD>130%	PFOS	5.324	3196100	98.2237	
4/2/01 23:38	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0062.D	0mg/L PFOS Study Number E00-1311	THPFOS		5.108	1584873	254	ISTD>130%	PFOS	0	0	0	
4/3/01 0:06	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0064.D	0mg/L PFOS Study Number E00-1311	THPFOS		5.098	1594416	254	ISTD>130%	PFOS	0	0	0	
4/3/01 0:35	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0066.D	0mg/L PFOS Study Number E00-1311	THPFOS		5.097	1612740	254	ISTD>130%	PFOS	0	0	0	
4/3/01 1:04	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0068.D	0mg/L PFOS Study Number E00-1311	THPFOS		5.098	1582196	254	ISTD>130%	PFOS	5.329	3075509	90.56476	
4/3/01 1:33	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0070.D	5mg/L PFOS Study Number E00-1311	THPFOS		5.099	1615581	254	ISTD>130%	PFOS	0	0	0	
4/3/01 2:02	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0072.D	5mg/L PFOS Study Number E00-1311	THPFOS		5.105	1590591	254	ISTD>130%	PFOS	0	0	0	
4/3/01 2:16	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0073.D	5 ng/mL PFOS in MeOH	THPFOS		5.105	1403089	254	ISTD>130%	PFOS	5.329	100877	2.321977	46.4%
4/3/01 2:31	D:\Chem\Hillary\H010402.b	SAMPLE	HILL0074.D	25O.5 ng/mL PFOS in MeOH	THPFOS		5.098	1313803	254	ISTD>130%	PFOS	5.322	4689812	171.6327	68.5%

Sample Batch R010329b.b, analyzed on Rush 03-29-01. *PFOS Adsorb/Desorb* samples. Matrix: Soil/Sig/Sed.
***Standard curve* range used for calibration of samples: *5-501 ng/mL* (2.5 ng/mL std not included due to the higher sample concentration range).**
Batch method: R010329.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Nam	RT	Area	Amount	Compound N	RT	Area	Amount	
3/30/01 14:44	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0104.D	0 ng/mL PFOS in MeOH		THPFOS	5.574	845852	254	PFOS	0	0	0	
3/30/01 14:58	D:\Chem\Rush\R010329.b	CALIB_1	RUSH0105.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.561	850507	254	PFOS	5.771	234324	2.803619	
3/30/01 15:13	D:\Chem\Rush\R010329.b	CALIB_2	RUSH0106.D	5 ng/mL PFOS in MeOH		THPFOS	5.57	805498	254	PFOS	5.78	259067	4.511131	90.2%
3/30/01 15:27	D:\Chem\Rush\R010329.b	CALIB_3	RUSH0107.D	10 ng/mL PFOS in MeOH		THPFOS	5.574	844287	254	PFOS	5.778	372504	8.982522	89.8%
3/30/01 15:41	D:\Chem\Rush\R010329.b	CALIB_4	RUSH0108.D	25 ng/mL PFOS in MeOH		THPFOS	5.574	874781	254	PFOS	5.777	750517	25.05443	100.2%
3/30/01 15:56	D:\Chem\Rush\R010329.b	CALIB_5	RUSH0109.D	40 ng/mL PFOS in MeOH		THPFOS	5.575	874280	254	PFOS	5.778	1074369	39.99818	99.7%
3/30/01 16:10	D:\Chem\Rush\R010329.b	CALIB_6	RUSH0110.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.575	856450	254	PFOS	5.778	1261642	50.16737	100.1%
3/30/01 16:25	D:\Chem\Rush\R010329.b	CALIB_7	RUSH0111.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.562	857550	254	PFOS	5.765	1770429	75.8725	101.0%
3/30/01 16:39	D:\Chem\Rush\R010329.b	CALIB_8	RUSH0112.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.568	863358	254	PFOS	5.771	2201517	98.11491	97.9%
3/30/01 16:53	D:\Chem\Rush\R010329.b	CALIB_9	RUSH0113.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.578	806157	254	PFOS	5.789	4379739	251.4603	100.4%
3/30/01 17:08	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0114.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.574	858200	254	PFOS	5.777	6738768	408.2194	
3/30/01 17:22	D:\Chem\Rush\R010329.b	CALIB_10	RUSH0115.D	501 ng/mL PFOS in MeOH		THPFOS	5.57	909424	254	PFOS	5.773	8394525	508.9853	101.6%
3/30/01 17:36	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0116.D	1002 ng/mL PFOS in MeOH		THPFOS	5.568	813760	254	PFOS	5.778	12942478	1114.479	
3/31/01 10:24	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0186.D	0 ng/mL PFOS in MeOH		THPFOS	5.52	760278	254	PFOS	0	0	0	
3/31/01 10:38	D:\Chem\Rush\R010329.b	CALIB_11	RUSH0187.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.534	761291	254	PFOS	5.744	222040	3.400639	
3/31/01 10:53	D:\Chem\Rush\R010329.b	CALIB_12	RUSH0188.D	5 ng/mL PFOS in MeOH		THPFOS	5.517	731965	254	PFOS	5.727	254163	5.463481	109.3%
3/31/01 11:07	D:\Chem\Rush\R010329.b	CALIB_13	RUSH0189.D	10 ng/mL PFOS in MeOH		THPFOS	5.515	771260	254	PFOS	5.725	358164	9.856614	98.6%
3/31/01 11:21	D:\Chem\Rush\R010329.b	CALIB_14	RUSH0190.D	25 ng/mL PFOS in MeOH		THPFOS	5.511	764462	254	PFOS	5.721	666714	25.61491	102.5%
3/31/01 11:36	D:\Chem\Rush\R010329.b	CALIB_15	RUSH0191.D	40 ng/mL PFOS in MeOH		THPFOS	5.517	789541	254	PFOS	5.727	980488	40.53221	101.1%
3/31/01 11:50	D:\Chem\Rush\R010329.b	CALIB_16	RUSH0192.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.524	769770	254	PFOS	5.734	1138146	50.39724	100.6%
3/31/01 12:04	D:\Chem\Rush\R010329.b	CALIB_17	RUSH0193.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.517	764856	254	PFOS	5.727	1583158	76.11235	101.3%
3/31/01 12:19	D:\Chem\Rush\R010329.b	CALIB_18	RUSH0194.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.526	787147	254	PFOS	5.729	2037660	99.93338	99.7%
3/31/01 12:33	D:\Chem\Rush\R010329.b	CALIB_19	RUSH0195.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.519	733566	254	PFOS	5.729	3963988	249.7285	99.7%
3/31/01 12:48	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0196.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.522	775073	254	PFOS	5.733	6072032	406.9537	
3/31/01 13:02	D:\Chem\Rush\R010329.b	CALIB_20	RUSH0197.D	501 ng/mL PFOS in MeOH		THPFOS	5.525	827129	254	PFOS	5.728	7615022	507.1578	101.2%
3/31/01 13:16	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0198.D	1002 ng/mL PFOS in MeOH		THPFOS	5.525	744097	254	PFOS	5.728	11828829	1113.673	

Average:	809251.5	1052027	+30%:
Std Dev:	50097.37	566476	-30%:
%RSD:	6.2%		

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Sample Batch R010329b.b, analyzed on Rush 03-29-01. PFOS Adsorb/Desorb samples. *Matrix: Soil/Sig/Sed.*
Standard curve range used for calibration of samples: 5-501 ng/mL (2.5 ng/mL *std not included* due to the higher sample concentration range).
Batch method: *R010329.m*

Inj Date	Batch	SampType	File	*Sample Name*	Misc Info	*Compound Nam*	RT	Area	Amount	*Compound*	NRT	Area	Amount
Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Nam	RT	Area	Amount	Compound	NRT	Area	Amount
3/30/01 14:15	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0102.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.792	144070	0
3/30/01 14:29	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0103.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.789	136863	0
3/30/01 17:51	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0117.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.798	170024	0
3/30/01 18:05	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0118.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.793	144025	0
3/30/01 18:20	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0119.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.797	138657	0
3/30/01 21:27	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0132.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.758	145074	0
3/30/01 21:41	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0133.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.769	139112	0
3/31/01 0:48	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0146.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.781	142482	0
3/31/01 1:03	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0147.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.788	134617	0
3/31/01 4:10	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0160.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.764	139821	0
3/31/01 4:24	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0161.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.765	133049	0
3/31/01 7:31	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0174.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.749	142142	0
3/31/01 7:46	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0175.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.738	136409	0
3/31/01 9:41	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0183.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.749	147797	0
3/31/01 9:55	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0184.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.749	139494	0
3/31/01 10:09	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0185.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.737	140062	0
3/31/01 13:31	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0199.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.756	174751	0

Sample Batch R010329b.b, analyzed on Rush 03-29-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 5-501 ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010329.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	
Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	
3/30/01 18:34	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0120.D	Study Number E00-1311		THPFOS	5.574	700662	254	PFOS	5.777	3839014	254.22	
3/30/01 18:48	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0121.D	Study Number E00-1311		THPFOS	5.565	880404	254	PFOS	5.769	2916166	135.13	
3/30/01 19:03	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0122.D	Study Number E00-1311		THPFOS	5.569	820419	254	PFOS	5.779	2814668	141.11	
3/30/01 19:17	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0123.D	Study Number E00-1311		THPFOS	5.57	821252	254	PFOS	5.781	2847623	142.97	
3/30/01 19:32	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0124.D	Study Number E00-1311		THPFOS	5.579	673700	254	PFOS	5.789	5475251	427.65	
3/30/01 19:46	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0125.D	Study Number E00-1311		THPFOS	5.573	843531	254	PFOS	5.776	1878094	83.18	
3/30/01 20:00	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0126.D	Study Number E00-1311		THPFOS	5.568	821307	254	PFOS	5.779	1731214	77.82	
3/30/01 20:15	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0127.D	Study Number E00-1311		THPFOS	5.56	824221	254	PFOS	5.763	1739800	77.95	
3/30/01 20:29	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0128.D	Study Number E00-1311		THPFOS	5.554	655636	254	PFOS	5.75	4384199	329.52	
3/30/01 20:43	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0129.D	Study Number E00-1311		THPFOS	5.551	814171	254	PFOS	5.755	3390903	179.53	
3/30/01 20:58	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0130.D	5 ng/mL PFOS in MeOH		THPFOS	5.547	794288	254	PFOS	5.757	258302	4.64	92.9%
3/30/01 21:12	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0131.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.553	791691	254	PFOS	5.756	4310524	252.17	100.7%
3/30/01 21:55	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0134.D	Study Number E00-1311		THPFOS	5.562	835122	254	PFOS	5.765	3594706	187.10	
3/30/01 22:10	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0135.D	Study Number E00-1311		THPFOS	5.571	804691	254	PFOS	5.774	3233585	171.68	
3/30/01 22:24	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0136.D	Study Number E00-1311		THPFOS	5.57	644452	254	PFOS	5.773	5569928	465.00	
3/30/01 22:39	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0137.D	Study Number E00-1311		THPFOS	5.567	873023	254	PFOS	5.77	2283901	101.23	
3/30/01 22:53	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0138.D	Study Number E00-1311		THPFOS	5.567	887648	254	PFOS	5.77	2361032	103.30	
3/30/01 23:07	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0139.D	Study Number E00-1311		THPFOS	5.56	926167	254	PFOS	5.763	2579566	109.27	
3/30/01 23:22	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0140.D	Study Number E00-1311		THPFOS	5.561	758299	254	PFOS	5.764	5414508	359.43	
3/30/01 23:36	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0141.D	Study Number E00-1311		THPFOS	5.568	824449	254	PFOS	0	0	0.00	
3/30/01 23:51	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0142.D	Study Number E00-1311		THPFOS	5.574	804628	254	PFOS	5.784	203794	1.98	
3/31/01 0:05	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0143.D	Study Number E00-1311		THPFOS	5.567	789160	254	PFOS	0	0	0.00	
3/31/01 0:20	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0144.D	5 ng/mL PFOS in MeOH		THPFOS	5.57	774516	254	PFOS	5.78	250673	4.59	91.7%
3/31/01 0:34	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0145.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.568	768822	254	PFOS	5.771	4205216	253.74	101.3%

Sample Batch R010329b.b, analyzed on Rush 03-29-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Slg/Sed.
Standard curve range used for calibration of samples: 5-501 ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010329.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Nam	RT	Area	Amount	Compound NRT	RT	Area	Amount	
3/31/01 1:17	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0148.D	Study Number E00-1311		THPFOS	5.568	648571	254	PFOS	5.778	3031707	207.59	
3/31/01 1:32	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0149.D	Study Number E00-1311		THPFOS	5.571	777614	254	PFOS	5.774	1604497	75.82	
3/31/01 1:46	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0150.D	Study Number E00-1311		THPFOS	5.56	773093	254	PFOS	5.763	1592359	75.66	
3/31/01 2:00	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0151.D	Study Number E00-1311		THPFOS	5.57	765384	254	PFOS	5.773	1911308	95.65	
3/31/01 2:15	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0152.D	Study Number E00-1311		THPFOS	5.56	699682	254	PFOS	5.763	4619176	324.00	
3/31/01 2:29	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0153.D	Study Number E00-1311		THPFOS	5.554	752148	254	PFOS	5.757	6721579	486.79	
3/31/01 2:43	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0154.D	Study Number E00-1311		THPFOS	5.553	740653	254	PFOS	5.756	7944853	627.78	> 501 ug/L
3/31/01 2:58	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0155.D	Study Number E00-1311		THPFOS	5.552	760503	254	PFOS	5.749	7336093	541.01	> 501 ug/L
3/31/01 3:12	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0156.D	Study Number E00-1311		THPFOS	5.547	630350	254	PFOS	5.75	8586480	885.44	> 501 ug/L
3/31/01 3:27	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0157.D	Study Number E00-1311		THPFOS	5.54	726006	254	PFOS	5.743	3782037	238.27	
3/31/01 3:41	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0158.D	5 ng/mL PFOS in MeOH		THPFOS	5.543	737132	254	PFOS	5.753	251147	5.22	104.4%
3/31/01 3:55	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0159.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.541	729955	254	PFOS	5.744	4087493	261.45	104.4%
3/31/01 4:39	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0162.D	Study Number E00-1311		THPFOS	5.54	758508	254	PFOS	5.743	3926573	236.36	
3/31/01 4:53	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0163.D	Study Number E00-1311		THPFOS	5.541	757756	254	PFOS	5.751	3793091	226.44	
3/31/01 5:07	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0164.D	Study Number E00-1311		THPFOS	5.547	615598	254	PFOS	5.75	5938887	541.09	> 501 ug/L
3/31/01 5:22	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0165.D	Study Number E00-1311		THPFOS	5.537	734440	254	PFOS	5.74	6989609	530.96	> 501 ug/L
3/31/01 5:36	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0166.D	Study Number E00-1311		THPFOS	5.533	771181	254	PFOS	5.736	7352037	532.24	> 501 ug/L
3/31/01 5:50	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0167.D	Study Number E00-1311		THPFOS	5.529	754378	254	PFOS	5.739	7301746	543.57	> 501 ug/L
3/31/01 6:05	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0168.D	Study Number E00-1311		THPFOS	5.518	599700	254	PFOS	5.728	9140058	1045.56	> 501 ug/L
3/31/01 6:19	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0169.D	Study Number E00-1311		THPFOS	5.533	860517	254	PFOS	5.736	5403042	303.36	
3/31/01 6:34	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0170.D	Study Number E00-1311		THPFOS	5.529	908478	254	PFOS	5.739	5358582	279.64	
3/31/01 6:48	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0171.D	Study Number E00-1311		THPFOS	5.532	746279	254	PFOS	5.743	4454099	283.95	
3/31/01 7:02	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0172.D	5 ng/mL PFOS in MeOH		THPFOS	5.532	742286	254	PFOS	5.742	253008	5.23	104.5%
3/31/01 7:17	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0173.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.532	728504	254	PFOS	5.735	3903435	247.03	98.6%
3/31/01 8:00	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0176.D	Study Number E00-1311		THPFOS	5.528	615539	254	PFOS	5.738	6430648	604.83	> 501 ug/L
3/31/01 8:14	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0177.D	Study Number E00-1311		THPFOS	5.524	771909	254	PFOS	5.727	740559	29.08	
3/31/01 8:29	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0178.D	Study Number E00-1311		THPFOS	5.528	694870	254	PFOS	5.738	238023	5.29	
3/31/01 8:43	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0179.D	Study Number E00-1311		THPFOS	5.525	717026	254	PFOS	5.735	210945	3.49	
3/31/01 8:57	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0180.D	Study Number E00-1311		THPFOS	5.525	618466	254	PFOS	5.728	3041758	221.42	
3/31/01 9:12	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0181.D	5 ng/mL PFOS in MeOH		THPFOS	5.524	706770	254	PFOS	5.741	249768	5.69	113.9%
3/31/01 9:26	D:\Chem\Rush\R010329.b	SAMPLE	RUSH0182.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.526	709256	254	PFOS	5.736	3915802	256.72	102.5%

Sample Batch R010329a.b, analyzed on Rush 03-29-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Slg/Sed.
Standard curve range used for calibration of samples: 5-501 ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010329.m

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound	RT	Area	Amount		Compound	RT	Area	Amount	
3/29/01 19:04	D:\Chem\	RSAMPLE	RUSH0022O	ng/mL PFOS in MeOH		THPFOS	5.581	937536	254		PFOS	0	0	0	
3/29/01 19:19	D:\Chem\	RCALIB_1	RUSH00232.5	ng/mL PFOS in MeOH		THPFOS	5.587	932041	254		PFOS	5.797	233998	2.84	
3/29/01 19:33	D:\Chem\	RCALIB_2	RUSH00245	ng/mL PFOS in MeOH		THPFOS	5.582	892607	254		PFOS	5.793	265016	4.50	89.9%
3/29/01 19:47	D:\Chem\	RCALIB_3	RUSH00251O	ng/mL PFOS in MeOH		THPFOS	5.59	941200	254		PFOS	5.793	397179	9.07	90.7%
3/29/01 20:02	D:\Chem\	RCALIB_4	RUSH002625	ng/mL PFOS in MeOH		THPFOS	5.586	952213	254		PFOS	5.789	812531	25.37	101.5%
3/29/01 20:16	D:\Chem\	RCALIB_5	RUSH00274O	ng/mL PFOS in MeOH		THPFOS	5.581	964296	254		PFOS	5.784	1183051	40.13	100.1%
3/29/01 20:30	D:\Chem\	RCALIB_6	RUSH00285O.1	ng/mL PFOS in MeOH		THPFOS	5.588	940694	254		PFOS	5.798	1389031	50.34	100.5%
3/29/01 20:45	D:\Chem\	RCALIB_7	RUSH002975.1	ng/mL PFOS in MeOH		THPFOS	5.582	913845	254		PFOS	5.792	1906080	76.36	101.7%
3/29/01 20:59	D:\Chem\	RCALIB_8	RUSH0030100.2	ng/mL PFOS in MeOH		THPFOS	5.584	931382	254		PFOS	5.787	2452896	101.14	100.9%
3/29/01 21:13	D:\Chem\	RCALIB_9	RUSH003125O.5	ng/mL PFOS in MeOH		THPFOS	5.581	882940	254		PFOS	5.791	4875108	253.12	101.0%
3/29/01 21:28	D:\Chem\	RSAMPLE	RUSH0032400.8	ng/mL PFOS in MeOH		THPFOS	5.577	925627	254		PFOS	5.787	7451045	415.73	
3/29/01 21:42	D:\Chem\	RCALIB_10	RUSH0033501	ng/mL PFOS in MeOH		THPFOS	5.582	989407	254		PFOS	5.785	9377197	519.76	103.7%
3/29/01 21:57	D:\Chem\	RSAMPLE	RUSH00341002	ng/mL PFOS in MeOH		THPFOS	5.585	884676	254		PFOS	5.788	14614178	1161.45	
3/30/01 14:44	D:\Chem\	RSAMPLE	RUSH0104O	ng/mL PFOS in MeOH		THPFOS	5.574	845419	254		PFOS	0	0	0.00	
3/30/01 14:58	D:\Chem\	RCALIB_11	RUSH01052.5	ng/mL PFOS in MeOH		THPFOS	5.561	850637	254		PFOS	5.771	234682	3.73	
3/30/01 15:13	D:\Chem\	RCALIB_12	RUSH01065	ng/mL PFOS in MeOH		THPFOS	5.57	805498	254		PFOS	5.78	259067	5.40	107.9%
3/30/01 15:27	D:\Chem\	RCALIB_13	RUSH01071O	ng/mL PFOS in MeOH		THPFOS	5.574	844287	254		PFOS	5.778	372504	9.78	97.8%
3/30/01 15:41	D:\Chem\	RCALIB_14	RUSH010825	ng/mL PFOS in MeOH		THPFOS	5.574	874781	254		PFOS	5.777	750517	25.55	102.2%
3/30/01 15:56	D:\Chem\	RCALIB_15	RUSH01094O	ng/mL PFOS in MeOH		THPFOS	5.575	874280	254		PFOS	5.778	1074369	40.21	100.3%
3/30/01 16:10	D:\Chem\	RCALIB_16	RUSH01105O.1	ng/mL PFOS in MeOH		THPFOS	5.575	856450	254		PFOS	5.778	1261642	50.20	100.2%
3/30/01 16:25	D:\Chem\	RCALIB_17	RUSH011175.1	ng/mL PFOS in MeOH		THPFOS	5.562	857550	254		PFOS	5.765	1770429	75.43	100.4%
3/30/01 16:39	D:\Chem\	RCALIB_18	RUSH0112100.2	ng/mL PFOS in MeOH		THPFOS	5.568	863358	254		PFOS	5.771	2201517	97.27	97.1%
3/30/01 16:53	D:\Chem\	RCALIB_19	RUSH011325O.5	ng/mL PFOS in MeOH		THPFOS	5.578	806157	254		PFOS	5.789	4379739	247.92	99.0%
3/30/01 17:08	D:\Chem\	RSAMPLE	RUSH0114400.8	ng/mL PFOS in MeOH		THPFOS	5.574	858200	254		PFOS	5.777	6738768	402.04	
3/30/01 17:22	D:\Chem\	RCALIB_20	RUSH0115501	ng/mL PFOS in MeOH		THPFOS	5.57	909424	254		PFOS	5.773	8394525	501.13	100.0%
3/30/01 17:36	D:\Chem\	RSAMPLE	RUSH01161002	ng/mL PFOS in MeOH		THPFOS	5.568	813760	254		PFOS	5.778	12942478	1096.91	

Average: 890317.9 1157413 +30%:
Std Dev: 49995.31 623223 -30%:
%RSD: 5.6%

CMC 4/3/01
Pg 1 of 4

Sample Batch R010329a.b, analyzed on Rush 03-29-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: *5-501 ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).*
Batch method: *R010329.m*

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	CompoundRT	Area	Amount		CompoundRT		Area	Amount
3/29/01 18:35	D:\Chem\RSAMPLE		RUSH0020TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.806	157757	0
3/29/01 18:50	D:\Chem\RSAMPLE		RUSH0021TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.809	137641	0
3/29/01 22:11	D:\Chem\RSAMPLE		RUSH0035TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.804	167176	0
3/29/01 22:25	D:\Chem\RSAMPLE		RUSH0036TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.798	141973	0
3/30/01 0:49	D:\Chem\RSAMPLE		RUSH0046TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.809	145679	0
3/30/01 1:03	D:\Chem\RSAMPLE		RUSH0047TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.803	135609	0
3/30/01 4:11	D:\Chem\RSAMPLE		RUSH0060TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.803	138237	0
3/30/01 4:25	D:\Chem\RSAMPLE		RUSH0061TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.803	134040	0
3/30/01 7:32	D:\Chem\RSAMPLE		RUSH0074TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.807	144692	0
3/30/01 7:46	D:\Chem\RSAMPLE		RUSH0075TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.808	137246	0
3/30/01 10:54	D:\Chem\RSAMPLE		RUSH0088TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.796	142382	0
3/30/01 11:08	D:\Chem\RSAMPLE		RUSH0089TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.794	138943	0
3/30/01 14:15	D:\Chem\RSAMPLE		RUSH0102TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.792	144070	0
3/30/01 14:29	D:\Chem\RSAMPLE		RUSH0103TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.789	134518	0
3/30/01 17:51	D:\Chem\RSAMPLE		RUSH0117TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.798	170024	0
3/30/01 18:05	D:\Chem\RSAMPLE		RUSH0118TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.793	144025	0
3/30/01 18:20	D:\Chem\RSAMPLE		RUSH0119TN-A 4802 MeOH			THPFOS	0	0	0	PFOS	5.797	138657	0

Sample Batch R010329a.b, analyzed on Rush 03-29-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Slg/Sed.
Standard curve range used for calibration of samples: 5-501 ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010329.m

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound	RT	Area	Amount		Compound	RT	Area	Amount	
3/29/01 22:40	D:\Chem\	RSAMPLE	RUSH0037	Study Number E00-1311		THPFOS	5.588	874070	254		PFOS	5.791	3351053	159.93	
3/29/01 22:54	D:\Chem\	RSAMPLE	RUSH0038	Study Number E00-1311		THPFOS	5.582	901936	254		PFOS	5.785	3334462	152.92	
3/29/01 23:08	D:\Chem\	RSAMPLE	RUSH0039	Study Number E00-1311		THPFOS	5.588	905901	254		PFOS	5.791	3176252	143.26	
3/29/01 23:23	D:\Chem\	RSAMPLE	RUSH0040	Study Number E00-1311		THPFOS	5.586	727872	254		PFOS	5.79	5858869	415.70	
3/29/01 23:37	D:\Chem\	RSAMPLE	RUSH0041	Study Number E00-1311		THPFOS	5.581	881852	254		PFOS	5.791	6787348	391.37	
3/29/01 23:52	D:\Chem\	RSAMPLE	RUSH0042	Study Number E00-1311		THPFOS	5.582	884596	254		PFOS	5.785	4533069	230.09	
3/30/01 0:06	D:\Chem\	RSAMPLE	RUSH0043	Study Number E00-1311		THPFOS	5.583	880085	254		PFOS	5.787	6721663	387.34	
3/30/01 0:20	D:\Chem\	RSAMPLE	RUSH0044	5 ng/mL PFOS in MeOH		THPFOS	5.582	890865	254		PFOS	5.799	279066	5.09	101.8%
3/30/01 0:35	D:\Chem\	RSAMPLE	RUSH0045	25O.5 ng/mL PFOS in MeOH		THPFOS	5.58	877456	254		PFOS	5.791	4855798	253.86	101.3%
3/30/01 1:18	D:\Chem\	RSAMPLE	RUSH0048	Study Number E00-1311		THPFOS	5.588	694334	254		PFOS	5.792	8882466	795.21	
3/30/01 1:32	D:\Chem\	RSAMPLE	RUSH0049	Study Number E00-1311		THPFOS	5.583	970838	254		PFOS	5.793	2166125	82.81	
3/30/01 1:47	D:\Chem\	RSAMPLE	RUSH0050	Study Number E00-1311		THPFOS	5.582	911997	254		PFOS	5.792	2081596	85.11	
3/30/01 2:01	D:\Chem\	RSAMPLE	RUSH0051	Study Number E00-1311		THPFOS	5.575	884872	254		PFOS	5.778	1925950	80.38	
3/30/01 2:15	D:\Chem\	RSAMPLE	RUSH0052	Study Number E00-1311		THPFOS	5.575	711307	254		PFOS	5.785	4807882	329.29	
3/30/01 2:30	D:\Chem\	RSAMPLE	RUSH0053	Study Number E00-1311		THPFOS	5.571	895811	254		PFOS	5.781	7066726	404.55	
3/30/01 2:44	D:\Chem\	RSAMPLE	RUSH0054	Study Number E00-1311		THPFOS	5.569	893422	254		PFOS	5.779	7171691	414.16	
3/30/01 2:59	D:\Chem\	RSAMPLE	RUSH0055	Study Number E00-1311		THPFOS	5.568	900655	254		PFOS	5.771	7483683	433.98	
~~3/30/01 3:13~~	~~D:\Chem\~~	~~RSAMPLE~~	~~RUSH0056~~	~~Study Number E00-1311~~	-	~~THPFOS~~	~~5.567~~	~~716883~~	~~254~~	-	~~PFOS~~	~~5.777~~	~~9446572~~	~~830.56~~	> 501ug/L
3/30/01 3:27	D:\Chem\	RSAMPLE	RUSH0057	Study Number E00-1311		THPFOS	5.575	868476	254		PFOS	5.785	471637	13.57	
3/30/01 3:42	D:\Chem\	RSAMPLE	RUSH0058	5 ng/mL PFOS in MeOH		THPFOS	5.581	868387	254		PFOS	5.798	272404	5.11	102.1%
3/30/01 3:56	D:\Chem\	RSAMPLE	RUSH0059	25O.5 ng/mL PFOS in MeOH		THPFOS	5.581	845346	254		PFOS	5.792	4664476	252.91	101.0%
3/30/01 4:39	D:\Chem\	RSAMPLE	RUSH0062	Study Number E00-1311		THPFOS	5.581	879621	254		PFOS	5.791	207413	2.29	
3/30/01 4:54	D:\Chem\	RSAMPLE	RUSH0063	Study Number E00-1311		THPFOS	5.578	865113	254		PFOS	5.788	175186	1.09	
3/30/01 5:08	D:\Chem\	RSAMPLE	RUSH0064	Study Number E00-1311		THPFOS	5.573	713593	254		PFOS	5.783	3349187	205.86	
3/30/01 5:22	D:\Chem\	RSAMPLE	RUSH0065	Study Number E00-1311		THPFOS	5.581	856465	254		PFOS	5.785	2228859	99.69	
3/30/01 5:37	D:\Chem\	RSAMPLE	RUSH0066	Study Number E00-1311		THPFOS	5.581	844166	254		PFOS	5.784	2133042	96.20	
3/30/01 5:51	D:\Chem\	RSAMPLE	RUSH0067	Study Number E00-1311		THPFOS	5.582	848621	254		PFOS	5.785	1411558	58.15	
3/30/01 6:06	D:\Chem\	RSAMPLE	RUSH0068	Study Number E00-1311		THPFOS	5.579	669997	254		PFOS	5.782	4285086	306.23	
3/30/01 6:20	D:\Chem\	RSAMPLE	RUSH0069	Study Number E00-1311		THPFOS	5.577	818557	254		PFOS	5.78	7109748	460.98	
3/30/01 6:34	D:\Chem\	RSAMPLE	RUSH0070	Study Number E00-1311		THPFOS	5.582	815811	254		PFOS	5.785	5211826	305.78	
3/30/01 6:49	D:\Chem\	RSAMPLE	RUSH0071	Study Number E00-1311		THPFOS	5.574	823985	254		PFOS	5.777	8017544	539.08	> 501ug/L
3/30/01 7:03	D:\Chem\	RSAMPLE	RUSH0072	5 ng/mL PFOS in MeOH		THPFOS	5.571	823981	254		PFOS	5.788	275231	5.85	117.0%
3/30/01 7:17	D:\Chem\	RSAMPLE	RUSH0073	25O.5 ng/mL PFOS in MeOH		THPFOS	5.578	821611	254		PFOS	5.781	4574902	255.88	102.1%

Sample Batch R010329a.b, analyzed on Rush 03-29-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 5-501 ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010329.m

3/30/01 8:01	D:\Chem\RSAMPLE	RUSH0076Study Number E00-1311	THPFOS	5.568	690116	254	PFOS	5.778	10151474	976.13 > 501ug/L	
3/30/01 8:15	D:\Chem\RSAMPLE	RUSH0077Study Number E00-1311	THPFOS	5.579	956969	254	PFOS	5.782	4102214	183.73	
3/30/01 8:29	D:\Chem\RSAMPLE	RUSH0078Study Number E00-1311	THPFOS	5.574	870548	254	PFOS	5.778	3443662	166.25	
3/30/01 8:44	D:\Chem\RSAMPLE	RUSH0079Study Number E00-1311	THPFOS	5.581	845769	254	PFOS	5.784	3186935	156.55	
3/30/01 8:58	D:\Chem\RSAMPLE	RUSH0080Study Number E00-1311	THPFOS	5.574	710436	254	PFOS	5.777	5795265	423.27	
3/30/01 9:13	D:\Chem\RSAMPLE	RUSH0081Study Number E00-1311	THPFOS	5.576	852256	254	PFOS	5.779	6155804	359.52	
3/30/01 9:27	D:\Chem\RSAMPLE	RUSH0082Study Number E00-1311	THPFOS	5.576	913113	254	PFOS	5.779	8769331	529.37 > 501ug/L	
3/30/01 9:42	D:\Chem\RSAMPLE	RUSH0083Study Number E00-1311	THPFOS	5.585	834426	254	PFOS	5.788	5927478	351.66	
3/30/01 9:56	D:\Chem\RSAMPLE	RUSH0084Study Number E00-1311	THPFOS	5.578	702989	254	PFOS	5.781	8168548	692.32 > 501ug/L	
3/30/01 10:10	D:\Chem\RSAMPLE	RUSH0085Study Number E00-1311	THPFOS	5.581	919415	254	PFOS	5.785	4411967	211.71	
3/30/01 10:25	D:\Chem\RSAMPLE	RUSH00865 ng/mL PFOS in MeOH	THPFOS	5.579	828884	254	PFOS	5.789	270806	5.58	111.6%
3/30/01 10:39	D:\Chem\RSAMPLE	RUSH008725O.5 ng/mL PFOS in MeOH	THPFOS	5.573	820925	254	PFOS	5.783	4516252	251.94	100.6%
3/30/01 11:37	D:\Chem\RSAMPLE	RUSH0091Study Number E00-1311	THPFOS	5.575	851126	254	PFOS	5.785	4018521	207.41	
3/30/01 11:51	D:\Chem\RSAMPLE	RUSH0092Study Number E00-1311	THPFOS	5.577	699580	254	PFOS	5.78	6442026	499.47	
3/30/01 12:06	D:\Chem\RSAMPLE	RUSH0093Study Number E00-1311	THPFOS	5.581	833674	254	PFOS	5.784	1056562	41.77	
3/30/01 12:20	D:\Chem\RSAMPLE	RUSH0094Study Number E00-1311	THPFOS	5.575	827651	254	PFOS	5.785	376593	10.29	
3/30/01 12:34	D:\Chem\RSAMPLE	RUSH0095Study Number E00-1311	THPFOS	5.579	833417	254	PFOS	5.789	275264	5.71	
3/30/01 12:49	D:\Chem\RSAMPLE	RUSH0096Study Number E00-1311	THPFOS	5.573	660626	254	PFOS	5.783	3353185	227.32	
3/30/01 13:03	D:\Chem\RSAMPLE	RUSH0097Study Number E00-1311	THPFOS	5.575	831428	254	PFOS	5.785	846945	31.83	
3/30/01 13:17	D:\Chem\RSAMPLE	RUSH0098Study Number E00-1311	THPFOS	5.572	822165	254	PFOS	5.775	885719	34.15	
3/30/01 13:32	D:\Chem\RSAMPLE	RUSH0099Study Number E00-1311	THPFOS	5.576	815744	254	PFOS	5.779	850807	32.79	
3/30/01 13:46	D:\Chem\RSAMPLE	RUSH01005 ng/mL PFOS in MeOH	THPFOS	5.569	788928	254	PFOS	5.779	261893	5.77	115.5%
3/30/01 14:01	D:\Chem\RSAMPLE	RUSH010125O.5 ng/mL PFOS in MeOH	THPFOS	5.574	788989	254	PFOS	5.777	4409485	257.10	102.6%

Internal Standard Quantification, Calibration Standards 5-1002 ng/mL
2.5 ngPFOS/mL standard did not meet accuracy requirments, 256 ng/mL standard excluded because the level of std in the vial was too low to be sampled.
Quadratic curve fit. Reprocessed by KLT using method H010316.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	% Dev
3/16/01 19:53	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0016.D	0 ng/mL PFOS in MeOH	EX	THPFOS	4.98	1005926	254	PFOS	0.00	0	0.0	
3/16/01 20:07	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0017.D	2.5 ng/mL PFOS in MeOH	EX	THPFOS	4.98	1010858	254	PFOS	5.20	82328	3.1	
3/16/01 20:21	D:\chem\Hillary.NH010316.b	CALIB_1	HILL0018.D	5 ng/mL PFOS in MeOH	Level1/LOQ	THPFOS	4.96	1079645	254	PFOS	5.20	155004	5.9	117.7%
3/16/01 20:36	D:\chem\Hillary.NH010316.b	CALIB_2	HILL0019.D	10 ng/mL PFOS in MeOH	Level2	THPFOS	4.98	1029109	254	PFOS	5.20	234326	9.6	96.2%
3/16/01 20:50	D:\chem\Hillary.NH010316.b	CALIB_3	HILL0020.D	25 ng/mL PFOS in MeOH	Level3	THPFOS	4.97	1051978	254	PFOS	5.20	627398	26.1	104.5%
3/16/01 21:05	D:\chem\Hillary.NH010316.b	CALIB_4	HILL0021.D	40 ng/mL PFOS in MeOH	Level4	THPFOS	4.97	1053281	254	PFOS	5.20	984644	41.5	103.8%
3/16/01 21:19	D:\chem\Hillary.NH010316.b	CALIB_5	HILL0022.D	50.1 ng/mL PFOS in MeOH	Level5	THPFOS	4.98	1050185	254	PFOS	5.20	1180612	50.2	100.2%
3/16/01 21:33	D:\chem\Hillary.NH010316.b	CALIB_6	HILL0023.D	75.1 ng/mL PFOS in MeOH	Level6	THPFOS	4.98	1028830	254	PFOS	5.20	1780910	77.6	103.2%
3/16/01 21:48	D:\chem\Hillary.NH010316.b	CALIB_7	HILL0024.D	100.2 ng/mL PFOS in MeOH	Level7	THPFOS	4.98	1065863	254	PFOS	5.21	2395289	103.2	103.0%
3/16/01 22:16	D:\chem\Hillary.NH010316.b	CALIB_8	HILL0026.D	400.8 ng/mL PFOS in MeOH	Level8	THPFOS	4.98	1021092	254	PFOS	5.20	8293214	418.8	104.5%
3/16/01 22:31	D:\chem\Hillary.NH010316.b	CALIB_9	HILL0027.D	501 ng/mL PFOS in MeOH	Level9	THPFOS	4.99	1089332	254	PFOS	5.21	10630229	518.2	103.4%
3/16/01 22:45	D:\chem\Hillary.NH010316.b	CALIB_10	HILL0028.D	1002 ng/mL PFOS in MeOH	Level10	THPFOS	4.98	981759	254	PFOS	5.20	16956035	1038.7	103.7%
3/17/01 1:52	D:\chem\Hillary.NH010316.b	CCALIB_1	HILL0041.D	5 ng/mL PFOS in MeOH	Cal Check	THPFOS	4.99	1162527	254	PFOS	5.22	160488	5.6	112.8%
3/17/01 5:13	D:\chem\Hillary.NH010316.b	CCALIB_1	HILL0055.D	5 ng/mL PFOS in MeOH	Cal Check	THPFOS	5.00	1195793	254	PFOS	5.22	158636	5.4	108.2%
3/17/01 8:35	D:\chem\Hillary.NH010316.b	CCALIB_1	HILL0069.D	5 ng/mL PFOS in MeOH	Cal Check	THPFOS	5.00	1223325	254	PFOS	5.23	164340	5.5	109.5%
3/17/01 11:56	D:\chem\Hillary.NH010316.b	CCALIB_1	HILL0083.D	5 ng/mL PFOS in MeOH	Cal Check	THPFOS	4.98	1194723	254	PFOS	5.21	168920	5.8	115.6%
3/17/01 15:18	D:\chem\Hillary.NH010316.b	CCALIB_1	HILL0097.D	5 ng/mL PFOS in MeOH	Cal Check	THPFOS	5.01	1226276	254	PFOS	5.24	160868	5.3	106.7%
3/17/01 18:39	D:\chem\Hillary.NH010316.b	CCALIB_1	HILL0111.D	5 ng/mL PFOS in MeOH	Cal Check	THPFOS	4.97	1183628	254	PFOS	5.19	171512	5.9	118.9%
3/17/01 22:01	D:\chem\Hillary.NH010316.b	CCALIB_1	HILL0125.D	5 ng/mL PFOS in MeOH	Cal Check	THPFOS	4.99	1284731	254	PFOS	5.22	167650	5.3	106.1%
3/18/01 0:54	D:\chem\Hillary.NH010316.b	CCALIB_1	HILL0137.D	5 ng/mL PFOS in MeOH	Cal Check	THPFOS	4.99	1226093	254	PFOS	5.22	168594	5.6	112.3%
3/18/01 1:51	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0141.D	0 ng/mL PFOS in MeOH	EX	THPFOS	4.99	1127433	254	PFOS	0.00	0	0.0	
3/18/01 2:08	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0142.D	2.5 ng/mL PFOS in MeOH	EX	THPFOS	4.99	1108621	254	PFOS	5.21	84269	2.9	
3/18/01 2:20	D:\chem\Hillary.NH010316.b	CALIB_11	HILL0143.D	5 ng/mL PFOS in MeOH	Level1/LOQ	THPFOS	4.99	1206401	254	PFOS	5.21	159787	5.4	107.9%
3/18/01 2:35	D:\chem\Hillary.NH010316.b	CALIB_12	HILL0144.D	10 ng/mL PFOS in MeOH	Level2	THPFOS	4.99	1120075	254	PFOS	5.21	231761	8.7	86.9%
3/18/01 2:49	D:\chem\Hillary.NH010316.b	CALIB_13	HILL0145.D	25 ng/mL PFOS in MeOH	Level3	THPFOS	4.99	1132038	254	PFOS	5.21	622226	24.0	96.1%
3/18/01 3:03	D:\chem\Hillary.NH010316.b	CALIB_14	HILL0146.D	40 ng/mL PFOS in MeOH	Level4	THPFOS	4.99	1147927	254	PFOS	5.22	996879	38.5	96.2%
3/18/01 3:18	D:\chem\Hillary.NH010316.b	CALIB_15	HILL0147.D	50.1 ng/mL PFOS in MeOH	Level5	THPFOS	4.99	1126483	254	PFOS	5.22	1221239	48.4	96.6%
3/18/01 3:32	D:\chem\Hillary.NH010316.b	CALIB_16	HILL0148.D	75.1 ng/mL PFOS in MeOH	Level6	THPFOS	4.99	1094429	254	PFOS	5.21	1777780	73.5	97.8%
3/18/01 3:46	D:\chem\Hillary.NH010316.b	CALIB_17	HILL0149.D	100.2 ng/mL PFOS in MeOH	Level7	THPFOS	4.98	1128520	254	PFOS	5.22	2360759	96.9	96.7%
3/18/01 4:15	D:\chem\Hillary.NH010316.b	CALIB_18	HILL0151.D	400.8 ng/mL PFOS in MeOH	Level8	THPFOS	4.99	1064483	254	PFOS	5.21	8258630	369.1	97.1%
3/18/01 4:30	D:\chem\Hillary.NH010316.b	CALIB_19	HILL0152.D	501 ng/mL PFOS in MeOH	Level9	THPFOS	4.98	1145680	254	PFOS	5.20	10641852	469.1	97.6%
3/18/01 4:44	D:\chem\Hillary.NH010316.b	CALIB_20	HILL0153.D	1002 ng/mL PFOS in MeOH	Level20	THPFOS	4.98	1026033	254	PFOS	5.21	16590829	955.8	95.4%

average:	1112782.904	+30%=	1446617.8
std dev:	77434.66188	-30%=	778948.0
% C.V.:	7.0%		

KLT 08-FI-C
D-1983

Internal Stanpdard Quantification, Calibration Standards 5-1002 ng/mL.
2.5 ngPFOS/mL standard did not meet accuracy requirments, 206 ng/mL standard excluded because the level of std in the vial was too low to be sampled.
Quadratic curve fit. Reprocessed by KLT using method H0183161.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Matrix	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	% Dev
3/16/01 23:43	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0032.D	0mg/mL PFOS Study Number E00-1311	-5019	Cntrl	THPFOS	4.99	1030040	254	PFOS	0.00	0	0.0	
3/16/01 23:57	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0033.D	0mg/mL PFOS Study Number E00-1311	-5020	Cntrl	THPFOS	4.99	1034058	254	PFOS	0.00	0	0.0	
3/17/01 0:11	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0034.D	0mg/mL PFOS Study Number E00-1311	-5021	Cntrl	THPFOS	4.99	1046203	254	PFOS	0.00	0	0.0	
3/17/01 0:26	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0035.D	0mg/mL PFOS Study Number E00-1311	-5021MS	Cntrl	THPFOS	4.99	875973	254	PFOS	5.22	3548255	193.2	
3/17/01 0:40	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0036.D	0mg/mL PFOS Study Number E00-1311	-5055	Soil1	THPFOS	4.99	1025831	254	PFOS	0.00	0	0.0	
3/17/01 0:55	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0037.D	0mg/mL PFOS Study Number E00-1311	-5056	Soil1	THPFOS	4.99	1050995	254	PFOS	0.00	0	0.0	
3/17/01 1:09	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0038.D	0mg/mL PFOS Study Number E00-1311	-5057	Soil1	THPFOS	4.99	1025357	254	PFOS	0.00	0	0.0	
3/17/01 1:23	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0039.D	0mg/mL PFOS Study Number E00-1311	-5057MS	Soil1	THPFOS	4.99	540448	254	PFOS	5.22	3523785	196.3	
3/17/01 1:38	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0040.D	0mg/mL PFOS Study Number E00-1311	-5091	Soil2	THPFOS	4.98	1047462	254	PFOS	5.22	259652	10.2	
3/17/01 2:50	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0045.D	0mg/mL PFOS Study Number E00-1311	-5092	Soil2	THPFOS	4.99	1034640	254	PFOS	5.21	654200	27.8	
3/17/01 3:04	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0046.D	0mg/mL PFOS Study Number E00-1311	-5093	Soil2	THPFOS	4.99	1038025	254	PFOS	0.00	0	0.0	
3/17/01 3:18	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0047.D	0mg/mL PFOS Study Number E00-1311	-5093MS	Soil2	THPFOS	4.99	897372	254	PFOS	5.22	3532553	187.3	
3/17/01 3:33	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0048.D	0mg/mL PFOS Study Number E00-1311	-5127	Soil3	THPFOS	4.99	1030696	254	PFOS	0.00	0	0.0	
3/17/01 3:47	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0049.D	0mg/mL PFOS Study Number E00-1311	-5128	Soil3	THPFOS	4.99	1056009	254	PFOS	0.00	0	0.0	
3/17/01 4:01	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0050.D	0mg/mL PFOS Study Number E00-1311	-5129	Soil3	THPFOS	4.99	1036448	254	PFOS	0.00	0	0.0	
3/17/01 4:16	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0051.D	0mg/mL PFOS Study Number E00-1311	-5129MS	Soil3	THPFOS	4.99	856845	254	PFOS	5.22	3702818	207.2	
3/17/01 4:30	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0052.D	0mg/mL PFOS Study Number E00-1311	-5163-S3	Sed1	THPFOS	5.00	1053072	254	PFOS	5.22	51375	1.7	
3/17/01 4:45	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0053.D	0mg/mL PFOS Study Number E00-1311	-5164-S3	Sed1	THPFOS	4.99	1034093	254	PFOS	0.00	0	0.0	
3/17/01 4:59	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0054.D	0mg/mL PFOS Study Number E00-1311	-5165-S3	Sed1	THPFOS	5.00	1061294	254	PFOS	5.22	64945	2.2	
3/17/01 5:11	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0059.D	0mg/mL PFOS Study Number E00-1311	-5165MS-S3	Sed1	THPFOS	4.99	886076	254	PFOS	5.23	3605935	199.1	
3/17/01 6:25	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0060.D	0mg/mL PFOS Study Number E00-1311	-5199-S3	Sig1	THPFOS	4.98	1279951	254	PFOS	5.21	157665	5.0	
3/17/01 6:40	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0061.D	0mg/mL PFOS Study Number E00-1311	-5200-S3	Sig1	THPFOS	4.99	1269103	254	PFOS	5.22	106222	3.2	
3/17/01 6:54	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0062.D	0mg/mL PFOS Study Number E00-1311	-5201-S3	Sig1	THPFOS	5.00	1230151	254	PFOS	5.23	90577	2.8	
3/17/01 7:08	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0063.D	0mg/mL PFOS Study Number E00-1311	-5201MS-S3	Sig1	THPFOS	5.01	992890	254	PFOS	5.23	3624185	172.7	
3/17/01 7:23	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0064.D	0.5mg/mL PFOS Study Number E00-1311	-5022-S3	Cntrl	THPFOS	5.02	1158598	254	PFOS	5.25	70329	2.2	
3/17/01 7:37	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0065.D	0.5mg/mL PFOS Study Number E00-1311	-5023-S3	Cntrl	THPFOS	5.02	1110586	254	PFOS	5.25	46373	1.4	
3/17/01 7:51	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0066.D	0.5mg/mL PFOS Study Number E00-1311	-5024-S3	Cntrl	THPFOS	5.01	1105208	254	PFOS	5.24	53852	1.7	
3/17/01 8:06	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0067.D	0.5mg/mL PFOS Study Number E00-1311	-5024MS-S3	Cntrl	THPFOS	5.01	903208	254	PFOS	5.23	3611626	190.5	
3/17/01 8:20	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0068.D	0.5mg/mL PFOS Study Number E00-1311	-5058-S3	Soil1	THPFOS	5.00	1086639	254	PFOS	5.23	1042239	42.6	
3/17/01 9:32	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0073.D	0.5mg/mL PFOS Study Number E00-1311	-5056-S3	Soil1	THPFOS	4.99	1065324	254	PFOS	5.22	1165845	46.9	
3/17/01 9:47	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0074.D	0.5mg/mL PFOS Study Number E00-1311	-5060-S3	Soil1	THPFOS	4.99	1070984	254	PFOS	5.21	1350896	57.0	
3/17/01 10:01	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0075.D	0.5mg/mL PFOS Study Number E00-1311	-5060MS-S3	Soil1	THPFOS	4.99	858022	254	PFOS	5.22	4643770	261.8	
3/17/01 10:15	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0076.D	0.5mg/mL PFOS Study Number E00-1311	-5094-S3	Soil2	THPFOS	4.98	1069137	254	PFOS	5.21	1343889	56.4	
3/17/01 10:30	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0077.D	0.5mg/mL PFOS Study Number E00-1311	-5095-S3	Soil2	THPFOS	4.99	1050754	254	PFOS	5.22	1082779	45.9	
3/17/01 10:44	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0078.D	0.5mg/mL PFOS Study Number E00-1311	-5096-S3	Soil2	THPFOS	4.98	1060777	254	PFOS	5.21	1368096	57.9	
3/17/01 10:58	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0079.D	0.5mg/mL PFOS Study Number E00-1311	-5096MS-S3	Soil2	THPFOS	4.98	870974	254	PFOS	5.21	4758425	268.0	
3/17/01 11:13	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0080.D	0.5mg/mL PFOS Study Number E00-1311	-5130-S3	Soil3	THPFOS	4.99	1040450	254	PFOS	5.21	2519150	111.6	
3/17/01 11:27	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0081.D	0.5mg/mL PFOS Study Number E00-1311	-5132-S3	Soil3	THPFOS	4.99	1034295	254	PFOS	5.21	2229411	98.8	
3/17/01 11:42	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0082.D	0.5mg/mL PFOS Study Number E00-1311	-5132MS-S3	Soil3	THPFOS	4.98	837760	254	PFOS	5.20	6575200	333.9	
3/17/01 12:54	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0087.D	0.5mg/mL PFOS Study Number E00-1311	-5165-S3	Sed1	THPFOS	4.99	995946	254	PFOS	5.22	3026462	142.0	
3/17/01 13:08	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0088.D	0.5mg/mL PFOS Study Number E00-1311	-5187-S3	Sed1	THPFOS	4.99	1032664	254	PFOS	5.21	2233116	98.1	
3/17/01 13:22	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0089.D	0.5mg/mL PFOS Study Number E00-1311	-5168-S3	Sed1	THPFOS	4.99	1057841	254	PFOS	5.22	1541600	65.7	
3/17/01 13:37	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0090.D	0.5mg/mL PFOS Study Number E00-1311	-5168MS-S3	Sed1	THPFOS	4.98	852255	254	PFOS	5.21	4662192	261.1	
3/17/01 13:51	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0091.D	0.5mg/mL PFOS Study Number E00-1311	-5202-S3	Sig1	THPFOS	4.97	1161695	254	PFOS	5.20	970611	36.3	
3/17/01 14:06	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0092.D	0.5mg/mL PFOS Study Number E00-1311	-5203-S3	Sig1	THPFOS	4.98	1178055	254	PFOS	5.21	676708	25.2	
3/17/01 14:20	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0093.D	0.5mg/mL PFOS Study Number E00-1311	-5204-S3	Sig1	THPFOS	4.99	1214728	254	PFOS	5.22	830552	30.1	
3/17/01 14:34	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0094.D	0.5mg/mL PFOS Study Number E00-1311	-5204MS-S3	Sig1	THPFOS	5.00	986313	254	PFOS	5.23	4284979	205.7	
3/17/01 14:49	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0095.D	2mg/mL PFOS Study Number E00-1311	-5025-S3	Cntrl	THPFOS	5.01	1191769	254	PFOS	5.25	91166	2.9	
3/17/01 15:03	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0096.D	2mg/mL PFOS Study Number E00-1311	-5026-S3	Cntrl	THPFOS	5.01	1142462	254	PFOS	5.25	108551	3.7	
3/17/01 16:15	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0101.D	2mg/mL PFOS Study Number E00-1311	-5027-S3	Cntrl	THPFOS	4.99	1100527	254	PFOS	5.22	77567	2.7	
3/17/01 16:30	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0102.D	2mg/mL PFOS Study Number E00-1311	-5027MS-S3	Cntrl	THPFOS	4.98	885034	254	PFOS	5.21	3580479	193.0	
3/17/01 16:44	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0103.D	2mg/mL PFOS Study Number E00-1311	-5061-S3	Soil1	THPFOS	4.98	1067054	254	PFOS	5.21	3621989	159.8	
3/17/01 16:58	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0104.D	2mg/mL PFOS Study Number E00-1311	-5062-S3	Soil1	THPFOS	4.98	1039428	254	PFOS	5.21	4410829	203.2	
3/17/01 17:13	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0105.D	2mg/mL PFOS Study Number E00-1311	-5063-S3	Soil1	THPFOS	4.97	1036103	254	PFOS	5.20	3946791	180.8	
3/17/01 17:27	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0106.D	2mg/mL PFOS Study Number E00-1311	-5063MS-S3	Soil1	THPFOS	4.97	852270	254	PFOS	5.20	8887992	416.4	
3/17/01 17:42	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0107.D	2mg/mL PFOS Study Number E00-1311	-5097-S3	Soil2	THPFOS	4.97	1052696	254	PFOS	5.20	3618686	161.9	
3/17/01 17:56	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0108.D	2mg/mL PFOS Study Number E00-1311	-5098-S3	Soil2	THPFOS	4.97	1035364	254	PFOS	5.20	3784490	173.0	
3/17/01 18:11	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0109.D	2mg/mL PFOS Study Number E00-1311	-5099-S3	Soil2	THPFOS	4.97	1041384	254	PFOS	5.20	4248381	194.7	
3/17/01 18:25	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0110.D	2mg/mL PFOS Study Number E00-1311	-5099MS-S3	Soil2	THPFOS	4.97	845879	254	PFOS	5.20	8779180	557.2	
3/17/01 18:37	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0115.D	2mg/mL PFOS Study Number E00-1311	-5133-S3	Soil3	THPFOS	4.97	1002638	254	PFOS	5.19	7715854	393.7	
3/17/01 18:51	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0116.D	2mg/mL PFOS Study Number E00-1311	-5134-S3	Soil3	THPFOS	4.97	1014382	254	PFOS	5.19	7482254	375.2	
3/17/01 20:06	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0117.D	2mg/mL PFOS Study Number E00-1311	-5135-S3	Soil3	THPFOS	4.97	1056175	254	PFOS	5.20	7535698	361.3	
3/17/01 20:20	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0118.D	2mg/mL PFOS Study Number E00-1311	-5135MS-S3	Soil3	THPFOS	4.97	876784	254	PFOS	5.19	10450860	657.1	
3/17/01 20:35	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0119.D	2mg/mL PFOS Study Number E00-1311	-5169-S3	Sed1	THPFOS	4.97	1016028	254	PFOS	5.19	6113049	298.3	
3/17/01 20:49	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0120.D	2mg/mL PFOS Study Number E00-1311	-5170-S3	Sed1	THPFOS	4.97	1018514	254	PFOS	5.19	5552808	267.4	
3/17/01 21:03	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0121.D	2mg/mL PFOS Study Number E00-1311	-5171-S3	Sed1	THPFOS	4.97	1017900	254	PFOS	5.20	6884913	327.9	
3/17/01 21:18	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0122.D	2mg/mL PFOS Study Number E00-1311	-5171MS-S3	Sed1	THPFOS	4.98	820503	254	PFOS	5.20	9045931	598.5	
3/17/01 21:32	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0123.D	2mg/mL PFOS Study Number E00-1311	-5206-S3	Sig1	THPFOS	4.98	1169436	254	PFOS	5.18	2482269	97.6	
3/17/01 21:47	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0124.D	2mg/mL PFOS Study Number E00-1311	-5206-S3	Sig1	THPFOS	4.97	1161490	254	PFOS	5.20	3252285	127.8	
3/17/01 22:59	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0129.D	2mg/mL PFOS Study Number E00-1311	-5207-S3	Sig1	THPFOS	4.97	1187186	254	PFOS	5.20	3560757	98.9	
3/17/01 23:13	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0130.D	2mg/mL PFOS Study Number E00-1311	-5207MS-S3	Sig1	THPFOS	4.99	965076	254	PFOS	5.21	5863722	301.8	
3/17/01 23:27	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0131.D	5mg/mL PFOS Study Number E00-1311	-5028-S3	Cntrl	THPFOS	5.01	1163428	254	PFOS	5.23	158058	5.6	
3/17/01 23:42	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0132.D	5mg/mL PFOS Study Number E00-1311	-5029-S3	Cntrl	THPFOS	5.00	1116322	254	PFOS	5.23	134478	4.9	
3/17/01 23:56	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0133.D	5mg/mL PFOS Study Number E00-1311	-5030-S3	Cntrl	THPFOS	5.00	1092492	254	PFOS	5.23	160321	6.0	
3/18/01 0:10	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0134.D	5mg/mL PFOS Study Number E00-1311	-5030-S3	Cntrl	THPFOS	5.00	906146	254	PFOS	5.22	3795565	200.4	
3/18/01 0:25	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0135.D	5mg/mL PFOS Study Number E00-1311	-5064-S3	Soil1	THPFOS	5.00	1039329	254	PFOS	5.22	9175440	461.1	
3/18/01 0:39	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0136.D	5mg/mL PFOS Study Number E00-1311	-5065-S3	Soil1	THPFOS	4.99	1081550	254	PFOS	5.22	6081679	285.5	

average:	1033223.481	
std dev:	186834.3811	
% C.V.:	18.3%	

Internal Standard Quantification, Calibration Standards 5-1902 ng/mL.
2.5 ngPFOS/mL standard did not meet accuracy requirements, 2SS ng/mL standard excluded because the level of std in the vial was too low to be sampled.
Quadratic curve fit. Reprocessed by KLT using method H0163-16Lm

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	% Dev
3/16/01 19:24	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0014.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	5.22	38380	0.0	
3/16/01 19:38	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0015.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	5.20	27273	0.0	
3/16/01 23:00	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0029.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	5.22	44296	0.0	
3/16/01 23:14	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0030.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	5.26	9999	0.0	
3/16/01 23:28	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0031.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 2:21	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0043.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 2:35	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0044.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 5:42	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0057.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 5:57	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0058.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 9:03	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0071.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 9:18	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0072.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 12:25	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0085.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 12:39	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0086.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 15:46	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0099.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 16:01	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0100.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 19:08	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0113.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 19:23	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0114.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 22:30	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0127.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/17/01 22:44	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0128.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/18/01 1:23	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0139.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/18/01 1:37	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0140.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/18/01 4:58	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0154.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	0	0	0.0	
3/18/01 5:13	D:\chem\Hillary.NH010316.b	SAMPLE	HILL0155.D	TN-A 4802 MeOH	Solvent Blk	THPFOS	0	0	0	PFOS	5.27	27132	0.0	
										PFOS	0	0	0.0	

E00-1311 PFOS Ads/Desorb

Internal Standard Quant, Reprocessing method: H016311Lnt, calibration standards 6-501 ng/mL.
2.5 ngPFOS/mL standard did not meet accuracy requirements.
Quadratic curve fit.

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	
3/11/01 19:56	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0021.D	0 ng/mL PFOS in MeOH	01003-07-01	THPFOS	5.01	1034340	254	PFOS	0.00	0	0.0	
3/11/01 20:07	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0022.D	2.5 ng/mL PFOS in MeOH	01003-07-02	THPFOS	5.00	1039520	254	PFOS	5.23	83311	2.7	% Theoretical
3/11/01 20:18	D:\chem\Hillary.NH010311.b	CALIB_1	HILL0023.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.01	1052556	254	PFOS	5.23	153586	4.8	95.3%
3/11/01 20:30	D:\chem\Hillary.NH010311.b	CALIB_2	HILL0024.D	10 ng/mL PFOS in MeOH	01003-07-04	THPFOS	5.01	1042830	254	PFOS	5.23	247518	8.6	86.1%
3/11/01 20:41	D:\chem\Hillary.NH010311.b	CALIB_3	HILL0025.D	25 ng/mL PFOS in MeOH	01003-07-05	THPFOS	5.01	1063805	254	PFOS	5.24	681984	24.2	96.9%
3/11/01 20:53	D:\chem\Hillary.NH010311.b	CALIB_4	HILL0026.D	40 ng/mL PFOS in MeOH	01003-07-06	THPFOS	5.01	1086525	254	PFOS	5.24	1040110	36.8	96.5%
3/11/01 21:04	D:\chem\Hillary.NH010311.b	CALIB_5	HILL0027.D	50.1 ng/mL PFOS in MeOH	01003-07-07	THPFOS	5.00	1058827	254	PFOS	5.23	1284523	46.5	96.9%
3/11/01 21:15	D:\chem\Hillary.NH010311.b	CALIB_6	HILL0028.D	75.1 ng/mL PFOS in MeOH	01003-07-08	THPFOS	5.01	1042085	254	PFOS	5.23	1880257	73.3	97.6%
3/11/01 21:27	D:\chem\Hillary.NH010311.b	CALIB_7	HILL0029.D	100.2 ng/mL PFOS in MeOH	01003-07-09	THPFOS	5.01	1088618	254	PFOS	5.23	2480124	95.7	95.5%
3/11/01 21:38	D:\chem\Hillary.NH010311.b	CALIB_8	HILL0030.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.01	1077114	254	PFOS	5.23	6006955	241.4	96.4%
3/11/01 21:50	D:\chem\Hillary.NH010311.b	CALIB_9	HILL0031.D	400.8 ng/mL PFOS in MeOH	01003-07-11	THPFOS	5.01	1018828	254	PFOS	5.23	8852963	383.1	96.1%
3/11/01 22:01	D:\chem\Hillary.NH010311.b	CALIB_10	HILL0032.D	501 ng/mL PFOS in MeOH	01003-07-12	THPFOS	5.01	1067568	254	PFOS	5.24	11111185	487.0	93.2%
3/12/01 0:40	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0046.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.01	972051	254	PFOS	5.23	150723	5.3	105.9%
3/12/01 0:51	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0047.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.01	991383	254	PFOS	5.23	6855845	256.9	102.5%
3/12/01 3:19	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0060.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.01	923856	254	PFOS	5.24	148740	5.5	110.7%
3/12/01 3:30	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0061.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.02	823425	254	PFOS	5.23	5788941	272.9	108.0%
3/12/01 5:56	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0074.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.01	882985	254	PFOS	5.23	154386	6.1	121.8%
3/12/01 6:08	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0075.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.01	867623	254	PFOS	5.24	5701082	288.5	115.2%
3/12/01 8:37	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0088.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.01	858629	254	PFOS	5.24	135422	5.4	108.0%
3/12/01 8:49	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0089.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.01	858127	254	PFOS	5.22	5863360	291.0	116.2%
3/12/01 11:17	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0102.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.01	864624	254	PFOS	5.24	143411	5.7	114.8%
3/12/01 11:28	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0103.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.02	858141	254	PFOS	5.24	5801045	288.4	114.3%
3/12/01 13:58	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0116.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.01	880625	254	PFOS	5.24	147185	5.8	115.6%
3/12/01 14:08	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0117.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.02	880121	254	PFOS	5.24	5552422	276.0	110.2%
3/12/01 16:24	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0129.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.01	919558	254	PFOS	5.24	161333	6.1	122.3%
3/12/01 16:36	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0130.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	5.01	881174	254	PFOS	5.23	5491184	269.0	107.4%
3/12/01 18:41	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0141.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.00	875441	254	PFOS	5.22	153185	6.1	121.8%
3/12/01 18:52	D:\chem\Hillary.NH010311.b	CCALIB_1	HILL0142.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	4.99	860849	254	PFOS	5.22	5385409	273.4	109.2%
3/12/01 19:26	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0145.D	0 ng/mL PFOS in MeOH	01003-07-01	THPFOS	4.99	846586	254	PFOS	0.00	0	0.0	
3/12/01 19:38	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0146.D	2.5 ng/mL PFOS in MeOH	01003-07-02	THPFOS	4.99	852093	254	PFOS	5.22	80672	2.9	
3/12/01 19:49	D:\chem\Hillary.NH010311.b	CALIB_11	HILL0147.D	5 ng/mL PFOS in MeOH	01003-07-03	THPFOS	5.01	888451	254	PFOS	5.22	136712	5.2	103.8%
3/12/01 20:00	D:\chem\Hillary.NH010311.b	CALIB_12	HILL0148.D	10 ng/mL PFOS in MeOH	01003-07-04	THPFOS	4.99	852043	254	PFOS	5.22	208777	8.8	88.2%
3/12/01 20:12	D:\chem\Hillary.NH010311.b	CALIB_13	HILL0149.D	25 ng/mL PFOS in MeOH	01003-07-05	THPFOS	4.99	872862	254	PFOS	5.21	581414	26.0	104.0%
3/12/01 20:23	D:\chem\Hillary.NH010311.b	CALIB_14	HILL0150.D	40 ng/mL PFOS in MeOH	01003-07-06	THPFOS	5.00	881810	254	PFOS	5.23	919485	41.5	103.7%
3/12/01 20:34	D:\chem\Hillary.NH010311.b	CALIB_15	HILL0151.D	50.1 ng/mL PFOS in MeOH	01003-07-07	THPFOS	5.00	868726	254	PFOS	5.22	1120277	51.7	103.2%
3/12/01 20:46	D:\chem\Hillary.NH010311.b	CALIB_16	HILL0152.D	75.1 ng/mL PFOS in MeOH	01003-07-08	THPFOS	5.00	859080	254	PFOS	5.22	1687072	80.0	106.6%
3/12/01 20:57	D:\chem\Hillary.NH010311.b	CALIB_17	HILL0153.D	100.2 ng/mL PFOS in MeOH	01003-07-09	THPFOS	4.98	872058	254	PFOS	5.22	2224729	105.2	105.0%
3/12/01 21:08	D:\chem\Hillary.NH010311.b	CALIB_18	HILL0154.D	250.5 ng/mL PFOS in MeOH	01003-07-10	THPFOS	4.99	862983	254	PFOS	5.22	5363478	261.8	104.4%
3/12/01 21:20	D:\chem\Hillary.NH010311.b	CALIB_19	HILL0155.D	400.8 ng/mL PFOS in MeOH	01003-07-11	THPFOS	4.99	854981	254	PFOS	5.22	7915801	422.1	105.3%
3/12/01 21:31	D:\chem\Hillary.NH010311.b	CALIB_20	HILL0156.D	501 ng/mL PFOS in MeOH	01003-07-12	THPFOS	4.99	906148	254	PFOS	5.22	10048607	518.1	103.4%

QC IS range (+/- 30% average):
1217498 +30%:
555578 -30%:

Average: 934837
Std Dev: 89444
%RSD: 9.5%

p. 1 of 3
KU 3-21-01

E00-1311 PFOS Ada/Desorb

Internal Standard Quant, Reprocessing method: H010311m, calibration standards 8-801 ng/mL. 2.5 ngPFOS/mL standard did not meet accuracy requirements. Quadratic curve fit.

Inj Date	Batch	SampType	File	Sample Name	Misc Info
3/11/01 22:46	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0036.D	E00-1311-4050-S7	Soil1
3/11/01 22:56	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0037.D	E00-1311-4080-S7	Soil1
3/11/01 23:06	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0038.D	E00-1311-4064-S7	Soil2
3/11/01 23:20	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0039.D	E00-1311-4095-S7	Soil2
3/11/01 23:32	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0040.D	E00-1311-4066-S7	Soil2
3/11/01 23:43	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0041.D	E00-1311-4068-S7	Soil2
3/11/01 23:54	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0042.D	E00-1311-4098-S7	Soil2
3/12/01 0:06	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0043.D	E00-1311-4090-S7	Soil2
3/12/01 0:17	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0044.D	E00-1311-4094-S7	Soil3
3/12/01 0:28	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0045.D	E00-1311-4085-S7	Soil3
3/12/01 1:25	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0050.D	E00-1311-4096-S7	Soil3
3/12/01 1:37	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0051.D	E00-1311-4118-S7	Soil3
3/12/01 1:48	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0052.D	E00-1311-4119-S7	Soil3
3/12/01 1:59	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0053.D	E00-1311-4120-S7	Soil3
3/12/01 2:11	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0054.D	E00-1311-4004-S8	Cntrl
3/12/01 2:22	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0055.D	E00-1311-4005-S8	Cntrl
3/12/01 2:33	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0056.D	E00-1311-4008-S8	Cntrl
3/12/01 2:45	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0057.D	E00-1311-4008MS-S8	Cntrl
3/12/01 2:56	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0058.D	E00-1311-4028-S8	Cntrl
3/12/01 3:07	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0059.D	E00-1311-4030-S8	Cntrl
3/12/01 4:04	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0064.D	E00-1311-4030MS-S8	Cntrl
3/12/01 4:16	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0065.D	E00-1311-4034-S8	Soil1
3/12/01 4:27	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0066.D	E00-1311-4035-S8	Soil1
3/12/01 4:39	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0067.D	E00-1311-4038-S8	Soil1
3/12/01 4:50	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0068.D	E00-1311-4038MS-S8	Soil1
3/12/01 5:01	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0069.D	E00-1311-4058-S8	Soil1
3/12/01 5:13	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0070.D	E00-1311-4059-S8	Soil1
3/12/01 5:24	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0071.D	E00-1311-4060-S8	Soil1
3/12/01 5:35	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0072.D	E00-1311-4060MS-S8	Soil1
3/12/01 5:47	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0073.D	E00-1311-4064-S8	Soil2
3/12/01 5:44	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0078.D	E00-1311-4065-S8	Soil2
3/12/01 6:55	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0079.D	E00-1311-4066-S8	Soil2
3/12/01 7:06	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0080.D	E00-1311-4066MS-S8	Soil2
3/12/01 7:18	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0081.D	E00-1311-4068-S8	Soil2
3/12/01 7:29	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0082.D	E00-1311-4068-S8	Soil2
3/12/01 7:40	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0083.D	E00-1311-4080-S8	Soil2
3/12/01 7:52	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0084.D	E00-1311-4090MS-S8	Soil2
3/12/01 8:03	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0085.D	E00-1311-4094-S8	Soil3
3/12/01 8:14	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0086.D	E00-1311-4095-S8	Soil3
3/12/01 8:26	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0087.D	E00-1311-4096-S8	Soil3
3/12/01 8:23	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0092.D	E00-1311-4096MS-S8	Soil3
3/12/01 9:34	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0093.D	E00-1311-4118-S8	Soil3
3/12/01 9:46	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0094.D	E00-1311-4119-S8	Soil3
3/12/01 9:57	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0095.D	E00-1311-4120-S8	Soil3
3/12/01 10:08	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0096.D	E00-1311-4120MS-S8	Soil3
3/12/01 10:20	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0097.D	E00-1311-5001-S1	Cntrl
3/12/01 10:31	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0098.D	E00-1311-5002-S1	Cntrl
3/12/01 10:43	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0099.D	E00-1311-5003-S1	Cntrl
3/12/01 10:54	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0100.D	E00-1311-5003MS-S1	Cntrl
3/12/01 11:05	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0101.D	E00-1311-5004-S1	Cntrl
3/12/01 12:02	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0106.D	E00-1311-5005-S1	Cntrl
3/12/01 12:14	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0107.D	E00-1311-5008-S1	Cntrl
3/12/01 12:25	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0108.D	E00-1311-5008MS-S1	Cntrl
3/12/01 12:36	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0109.D	E00-1311-5007-S1	Cntrl
3/12/01 12:48	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0110.D	E00-1311-5008-S1	Cntrl
3/12/01 12:59	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0111.D	E00-1311-5008-S1	Cntrl
3/12/01 13:11	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0112.D	E00-1311-5008MS-S1	Cntrl
3/12/01 13:22	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0113.D	E00-1311-5010-S1	Cntrl
3/12/01 13:33	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0114.D	E00-1311-5011-S1	Cntrl
3/12/01 13:45	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0115.D	E00-1311-5012-S1	Cntrl
3/12/01 14:03	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0120.D	E00-1311-5012MS-S1	Cntrl
3/12/01 15:05	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0121.D	E00-1311-5013-S1	Cntrl
3/12/01 15:16	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0122.D	E00-1311-5014-S1	Cntrl
3/12/01 15:27	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0123.D	E00-1311-5015-S1	Cntrl
3/12/01 15:38	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0124.D	E00-1311-5015MS-S1	Cntrl
3/12/01 15:50	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0125.D	E00-1311-5018-S1	Cntrl
3/12/01 16:01	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0126.D	E00-1311-5018MS-S1	Cntrl
3/12/01 16:13	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0127.D	E00-1311-5019-S1	Cntrl
3/12/01 17:10	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0128.D	E00-1311-5020-S1	Cntrl
3/12/01 17:21	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0129.D	E00-1311-5021-S1	Cntrl
3/12/01 17:32	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0134.D	E00-1311-5021MS-S1	Cntrl
3/12/01 17:44	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0135.D	E00-1311-5022-S1	Cntrl
3/12/01 17:55	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0136.D	E00-1311-5023-S1	Cntrl
3/12/01 18:07	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0137.D	E00-1311-5024-S1	Cntrl
3/12/01 18:18	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0138.D	E00-1311-5024MS-S1	Cntrl
3/12/01 18:29	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0140.D		Cntrl

Strikethrough samples have level of PFOS > than high standard (801 ng/mL) and shall be re-analyzed into the appropriate curve range.

Compound Name	RT	Area	Amount
THPFOS	5.01	355892	254
THPFOS	5.01	352305	254
THPFOS	5.01	368751	254
THPFOS	5.01	329873	254
THPFOS	5.01	357853	254
THPFOS	5.01	329811	254
THPFOS	5.01	307092	254
THPFOS	5.01	358453	254
THPFOS	5.02	339161	254
THPFOS	5.01	366333	254
THPFOS	5.01	355256	254
THPFOS	5.01	346171	254
THPFOS	5.01	339683	254
THPFOS	5.01	358381	254
THPFOS	5.01	358387	254
THPFOS	5.01	343649	254
THPFOS	5.01	362857	254
THPFOS	5.01	365202	254
THPFOS	5.02	362354	254
THPFOS	5.02	361510	254
THPFOS	5.01	310167	254
THPFOS	5.01	380433	254
THPFOS	5.01	301080	254
THPFOS	5.02	378778	254
THPFOS	5.02	781070	254
THPFOS	5.02	362150	254
THPFOS	5.01	324811	254
THPFOS	5.02	361521	254
THPFOS	5.01	787823	254
THPFOS	5.01	335658	254
THPFOS	5.01	373656	254
THPFOS	5.01	908581	254
THPFOS	5.01	746833	254
THPFOS	5.02	883621	254
THPFOS	5.01	854729	254
THPFOS	5.01	846087	254
THPFOS	5.02	737618	254
THPFOS	5.02	852047	254
THPFOS	5.02	842764	254
THPFOS	5.01	1395378	254
		ISTD response>30% QC	
THPFOS	5.01	767400	254
THPFOS	5.02	870894	254
THPFOS	5.02	849836	254
THPFOS	5.01	851516	254
THPFOS	5.01	732485	254
THPFOS	5.01	909028	254
THPFOS	5.02	792338	254
THPFOS	5.02	866884	254
THPFOS	5.01	700054	254
THPFOS	5.01	857920	254
THPFOS	5.02	860798	254
THPFOS	5.01	861473	254
THPFOS	5.02	764226	254
THPFOS	5.01	843286	254
THPFOS	5.01	820666	254
THPFOS	5.01	852052	254
THPFOS	5.01	720557	254
THPFOS	5.01	832419	254
THPFOS	5.01	797857	254
THPFOS	5.01	818540	254
THPFOS	5.01	734603	254
THPFOS	5.02	834417	254
THPFOS	5.01	954817	254
THPFOS	5.02	921367	254
THPFOS	5.01	788282	254
THPFOS	5.01	803024	254
THPFOS	5.01	880048	254
THPFOS	5.01	889618	254
THPFOS	5.01	734251	254
THPFOS	5.01	858409	254
THPFOS	5.02	833548	254
THPFOS	5.01	814884	254
THPFOS	5.01	898562	254
THPFOS	5.01	783993	254
THPFOS	5.00	778958	254
THPFOS	5.00	784670	254
THPFOS	5.00	874386	254

Average: 883428
Std Dev: 86746
%RSD: 11.0%

Compound Name	RT	Area	Amount
PFOS	5.24	636042	25.2
PFOS	5.24	598070	24.5
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	5.24	884087	37.7
PFOS	5.24	969511	42.8
PFOS	5.24	827240	36.4
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	5.23	711997	28.5
PFOS	5.24	954506	38.8
PFOS	5.24	860325	35.9
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	5.23	3864448	205.4
PFOS	5.24	296257	12.3
PFOS	5.24	248049	10.4
PFOS	5.23	4056794	214.9
PFOS	5.24	52285	1.4
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	5.24	3862229	205.9
PFOS	5.24	954011	39.8
PFOS	5.24	254734	11.5
PFOS	5.24	566358	25.7
PFOS	5.23	4284449	241.8
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	5.24	3726230	213.6
PFOS	5.24	873032	40.2
PFOS	5.24	898748	41.4
PFOS	5.24	800710	37.5
PFOS	5.24	4351655	256.5
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	5.24	3567884	196.4
PFOS	5.24	48774	2.0
PFOS	5.24	642787	28.7
PFOS	5.24	558038	25.9
PFOS	5.25	4165154	248.5
PFOS	0.00	300703	14.1
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	5.24	3608083	221.8
PFOS	5.28	3945422	198.1
PFOS	5.24	3965548	197.5
PFOS	5.24	4008884	186.6
PFOS	5.24	7174296	428.6
PFOS	5.24	5149166	253.2
PFOS	5.23	3654818	183.9
PFOS	5.24	3418730	188.5
PFOS	5.24	6578206	415.8
PFOS	5.24	7826708	435.7
PFOS	5.24	7091986	403.3
PFOS	5.23	7338487	408.6
PFOS	5.24	40630758	2448.6
PFOS	5.24	2060814	102.7
PFOS	5.24	2541118	110.0
PFOS	5.23	2301752	102.9
PFOS	5.24	5404817	311.8
PFOS	5.23	4604305	596.3
PFOS	5.24	31650580	647.5
PFOS	5.23	43522834	883.2
PFOS	5.24	43684348	933.8
PFOS	5.24	351044	15.6
PFOS	5.23	82289	3.5
PFOS	5.23	53821	1.7
PFOS	5.23	3383470	207.9
PFOS	5.24	3445786	186.8
PFOS	5.23	3530809	183.1
PFOS	5.22	3680613	200.3
		8437876	437.0

E00-1311 PFOS Ads/Desorb

Internal Standard Quant, Reprocessing method: H010311.m, calibration standards 0-991 ng/mL, 2.5 ng/PFOS/mL standard did not meet accuracy requirments.
Quadratic curve fit.

Inj Date	Batch	SampType	File	Sample Name	Misc Info
3/11/01 19:33	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0018.D	TN-A 4802 MeOH	
3/11/01 19:45	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0020.D	TN-A 4802 MeOH	
3/11/01 22:12	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0033.D	TN-A 4802 MeOH	
3/11/01 22:24	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0034.D	TN-A 4802 MeOH	
3/11/01 22:35	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0035.D	TN-A 4802 MeOH	
3/12/01 1:02	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0048.D	TN-A 4802 MeOH	
3/12/01 1:14	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0049.D	TN-A 4802 MeOH	
3/12/01 3:42	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0062.D	TN-A 4802 MeOH	
3/12/01 3:53	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0063.D	TN-A 4802 MeOH	
3/12/01 6:21	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0076.D	TN-A 4802 MeOH	
3/12/01 6:32	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0077.D	TN-A 4802 MeOH	
3/12/01 9:00	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0090.D	TN-A 4802 MeOH	
3/12/01 9:11	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0091.D	TN-A 4802 MeOH	
3/12/01 11:39	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0104.D	TN-A 4802 MeOH	
3/12/01 11:51	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0105.D	TN-A 4802 MeOH	
3/12/01 14:18	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0118.D	TN-A 4802 MeOH	
3/12/01 14:30	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0119.D	TN-A 4802 MeOH	
3/12/01 16:47	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0131.D	TN-A 4802 MeOH	
3/12/01 16:58	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0132.D	TN-A 4802 MeOH	
3/12/01 19:04	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0143.D	TN-A 4802 MeOH	
3/12/01 19:15	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0144.D	TN-A 4802 MeOH	
3/12/01 21:43	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0157.D	TN-A 4802 MeOH	
3/12/01 21:54	D:\chem\Hillary.NH010311.b	SAMPLE	HILL0158.D	TN-A 4802 MeOH	

Compound Name	RT	Area	Amount
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0
THPFOS	0.00	0	0

Compound Name	RT	Area	Amount
PFOS	5.27	22683	0.0
PFOS	5.27	10549	0.0
PFOS	5.27	14279	0.0
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	5.28	8734	0.0
PFOS	0.00	0	0.0
PFOS	5.28	8708	0.0
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	5.27	8990	0.0
PFOS	0.00	0	0.0
PFOS	5.28	9106	0.0
PFOS	0.00	0	0.0
PFOS	5.28	8881	0.0
PFOS	0.00	0	0.0
PFOS	5.28	11854	0.0
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	0.00	0	0.0
PFOS	5.28	21803	0.0
PFOS	5.28	8374	0.0

Sample Batch H010404.b, analyzed on Hillary 04-04-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Slg/Sed.
Standard curve range used for calibration of samples: 10-400.8 ng/mL
Batch method: H010404.m (External Standard Quant)

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount		Compound Na	RT	Area	Amount	
4/4/01 18:17	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0016.D	0 ng/mL PFOS in MeOH		THPFOS	5.113	906085	254		PFOS	0	0	0	
4/4/01 18:31	D:\Chem\Hillary\H010404.b	CALIB_1	HILL0017.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.112	889526	254		PFOS	5.329	72734	1.190813	
4/4/01 18:46	D:\Chem\Hillary\H010404.b	CALIB_2	HILL0018.D	5 ng/mL PFOS in MeOH		THPFOS	5.112	877571	254		PFOS	5.329	110448	3.153981	63%
4/4/01 19:00	D:\Chem\Hillary\H010404.b	CALIB_3	HILL0019.D	10 ng/mL PFOS in MeOH		THPFOS	5.112	902873	254		PFOS	5.329	204980	8.062456	81%
4/4/01 19:14	D:\Chem\Hillary\H010404.b	CALIB_4	HILL0020.D	25 ng/mL PFOS in MeOH		THPFOS	5.113	890573	254		PFOS	5.33	540471	25.66227	103%
4/4/01 19:29	D:\Chem\Hillary\H010404.b	CALIB_5	HILL0021.D	40 ng/mL PFOS in MeOH		THPFOS	5.111	931996	254		PFOS	5.329	883838	43.79826	109%
4/4/01 19:43	D:\Chem\Hillary\H010404.b	CALIB_6	HILL0022.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.112	903996	254		PFOS	5.329	1058705	53.09021	106%
4/4/01 19:57	D:\Chem\Hillary\H010404.b	CALIB_7	HILL0023.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.113	884697	254		PFOS	5.33	1555089	79.67175	106%
4/4/01 20:12	D:\Chem\Hillary\H010404.b	CALIB_8	HILL0024.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.114	899166	254		PFOS	5.331	2075718	107.8776	108%
4/4/01 20:26	D:\Chem\Hillary\H010404.b	CALIB_9	HILL0025.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.113	857703	254		PFOS	5.323	4653038	252.4225	101%
4/4/01 20:41	D:\Chem\Hillary\H010404.b	CALIB_10	HILL0026.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.112	891222	254		PFOS	5.329	7377624	414.1189	103%
4/4/01 20:55	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0027.D	501 ng/mL PFOS in MeOH		THPFOS	5.113	907981	254		PFOS	5.33	9097217	520.8761	104%
4/4/01 21:09	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0028.D	1002 ng/mL PFOS in MeOH		THPFOS	5.114	840757	254		PFOS	5.331	15189218	928.379	93%
4/5/01 11:19	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0087.D	0 ng/mL PFOS in MeOH		THPFOS	5.092	1281932	254		PFOS	0	0	0	
4/5/01 11:33	D:\Chem\Hillary\H010404.b	CALIB_11	HILL0088.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.091	1203313	254		PFOS	5.301	62293	0.647625	
4/5/01 11:47	D:\Chem\Hillary\H010404.b	CALIB_12	HILL0089.D	5 ng/mL PFOS in MeOH		THPFOS	5.093	1167470	254		PFOS	5.31	98724	2.543506	51%
4/5/01 12:02	D:\Chem\Hillary\H010404.b	CALIB_13	HILL0090.D	10 ng/mL PFOS in MeOH		THPFOS	5.09	1191649	254		PFOS	5.307	188223	7.208022	72%
4/5/01 12:16	D:\Chem\Hillary\H010404.b	CALIB_14	HILL0091.D	25 ng/mL PFOS in MeOH		THPFOS	5.092	1181183	254		PFOS	5.309	494122	23.22532	93%
4/5/01 12:31	D:\Chem\Hillary\H010404.b	CALIB_15	HILL0092.D	40 ng/mL PFOS in MeOH		THPFOS	5.091	1183842	254		PFOS	5.301	813449	40.06864	100%
4/5/01 12:45	D:\Chem\Hillary\H010404.b	CALIB_16	HILL0093.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.098	1129902	254		PFOS	5.315	975991	48.69034	97%
4/5/01 12:59	D:\Chem\Hillary\H010404.b	CALIB_17	HILL0094.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.098	1099744	254		PFOS	5.315	1451814	74.11635	99%
4/5/01 13:14	D:\Chem\Hillary\H010404.b	CALIB_18	HILL0095.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.093	1100820	254		PFOS	5.31	1962240	101.7013	101%
4/5/01 13:28	D:\Chem\Hillary\H010404.b	CALIB_19	HILL0096.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.092	1030699	254		PFOS	5.309	4432636	239.7418	96%
4/5/01 13:42	D:\Chem\Hillary\H010404.b	CALIB_20	HILL0097.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.092	1039403	254		PFOS	5.309	6951500	388.2267	97%
4/5/01 13:57	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0098.D	501 ng/mL PFOS in MeOH		THPFOS	5.093	1052373	254		PFOS	5.31	8649088	492.7043	98%
4/5/01 14:11	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0099.D	1002 ng/mL PFOS in MeOH		THPFOS	5.099	962330	254		PFOS	5.309	14944991	911.1632	91%

Average: 1123435.385 1460466 +30%:
Std Dev: 85107.0294 786405 -30%:
%RSD: 7.6%

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount		Compound Na	RT	Area	Amount	
4/4/01 14:41	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0001.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/4/01 14:56	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0002.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/4/01 15:39	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0005.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/4/01 15:53	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0006.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/4/01 17:48	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0014.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/4/01 18:03	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0015.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/4/01 21:24	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0029.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/4/01 21:38	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0030.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/5/01 0:45	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0043.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/5/01 1:00	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0044.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/5/01 4:07	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0057.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/5/01 4:21	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0058.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/5/01 7:28	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0071.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/5/01 7:43	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0072.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/5/01 10:50	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0085.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/5/01 11:04	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0086.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/5/01 14:26	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0100.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	
4/5/01 14:40	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0101.D	TN-A 4802 MeOH		THPFOS	0	0	0		PFOS	0	0	0	

3M Environmental Laboratory

CMC 4/9/01
PG 1682

H010404 external standard quant.xls

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount		Compound Na	RT	Area	Amount	
4/4/01 21:52	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0031.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.108	1562301	254	ISTD>130%	PFOS	0	0	0	
4/4/01 22:07	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0032.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.111	1575594	254	ISTD>130%	PFOS	0	0	0	
4/4/01 22:21	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0033.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.107	1560062	254	ISTD>130%	PFOS	0	0	0	
4/4/01 22:36	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0034.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.106	1537278	254	ISTD>130%	PFOS	5.316	3170996	168.3053	
4/4/01 22:50	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0035.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.098	1599896	254	ISTD>130%	PFOS	0	0	0	
4/4/01 23:04	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0036.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.1	1613917	254	ISTD>130%	PFOS	0	0	0	
4/4/01 23:19	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0037.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.094	1644662	254	ISTD>130%	PFOS	0	0	0	
4/4/01 23:33	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0038.D	0mg/L PFOS Study Number E00-1311		THPFOS	5.099	1579150	254	ISTD>130%	PFOS	5.309	2970771	157.1483	
4/4/01 23:48	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0039.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.099	1587389	254	ISTD>130%	PFOS	0	0	0	
4/5/01 0:02	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0040.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1567309	254	ISTD>130%	PFOS	0	0	0	
4/5/01 0:16	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0041.D	5 ng/mL PFOS in MeOH		THPFOS	5.105	1307817	254		PFOS	5.315	101216	2.673254	53.5%
4/5/01 0:31	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0042.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.106	1186004	254		PFOS	5.316	4607627	249.8049	99.7%
4/5/01 1:14	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0045.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1569488	254	ISTD>130%	PFOS	5.315	202756	7.966382	
4/5/01 1:28	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0046.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1521100	254	ISTD>130%	PFOS	5.315	3255972	173.0552	
4/5/01 1:43	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0047.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.105	1563690	254	ISTD>130%	PFOS	5.315	80242	1.581493	
4/5/01 1:57	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0048.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.099	1535494	254	ISTD>130%	PFOS	0	0	0	
4/5/01 2:11	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0049.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.094	1528194	254	ISTD>130%	PFOS	0	0	0	
4/5/01 2:26	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0050.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1514404	254	ISTD>130%	PFOS	5.315	3115242	165.1936	
4/5/01 2:40	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0051.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.097	1537963	254	ISTD>130%	PFOS	5.314	76776	1.401129	
4/5/01 2:55	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0052.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.091	1529992	254	ISTD>130%	PFOS	5.308	96528	2.429182	
4/5/01 3:09	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0053.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.091	1541462	254	ISTD>130%	PFOS	5.308	166651	6.082828	
4/5/01 3:23	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0054.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.099	1500713	254	ISTD>130%	PFOS	5.309	3133475	166.2108	
4/5/01 3:38	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0055.D	5 ng/mL PFOS in MeOH		THPFOS	5.104	1341697	254		PFOS	5.314	103787	2.80712	56.1%
4/5/01 3:52	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0056.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.098	1248317	254		PFOS	5.308	4550667	246.5252	98.4%
4/5/01 4:35	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0059.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.099	1667410	254	ISTD>130%	PFOS	5.309	183857	6.980244	
4/5/01 4:50	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0060.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.1	1546322	254	ISTD>130%	PFOS	5.31	148784	5.151322	
4/5/01 5:04	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0061.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.099	1570952	254	ISTD>130%	PFOS	5.316	80452	1.592421	
4/5/01 5:19	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0062.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.099	1511291	254	ISTD>130%	PFOS	5.316	3105298	164.639	
4/5/01 5:33	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0063.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1520307	254	ISTD>130%	PFOS	5.315	81053	1.623698	
4/5/01 5:47	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0064.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.099	1536595	254	ISTD>130%	PFOS	5.316	74150	1.264487	
4/5/01 6:02	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0065.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1504984	254	ISTD>130%	PFOS	5.308	119473	3.624028	
4/5/01 6:16	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0066.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.092	1472241	254	ISTD>130%	PFOS	5.302	3098377	164.2531	
4/5/01 6:31	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0067.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.091	1543912	254	ISTD>130%	PFOS	5.308	134114	4.386787	
4/5/01 6:45	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0068.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.09	1511129	254	ISTD>130%	PFOS	5.301	179554	6.755777	
4/5/01 6:59	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0069.D	5 ng/mL PFOS in MeOH		THPFOS	5.092	1329935	254		PFOS	5.309	99459	2.581776	51.6%
4/5/01 7:14	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0070.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.098	1263173	254		PFOS	5.308	4490291	243.0532	97.0%
4/5/01 7:57	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0073.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.091	1537210	254	ISTD>130%	PFOS	5.308	181284	6.84602	
4/5/01 8:11	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0074.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.098	1489558	254	ISTD>130%	PFOS	5.308	3114794	165.1686	
4/5/01 8:26	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0075.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.097	1509221	254	ISTD>130%	PFOS	5.307	76643	1.394208	
4/5/01 8:40	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0076.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.099	1509704	254	ISTD>130%	PFOS	5.309	138272	4.603457	
4/5/01 8:55	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0077.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.092	1492328	254	ISTD>130%	PFOS	5.309	231419	9.462838	
4/5/01 9:09	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0078.D	5mg/L PFOS Study Number E00-1311		THPFOS	0	0	0	ISTD<70%	PFOS	5.302	3063518	162.3102	
4/5/01 9:23	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0079.D	5mg/L PFOS Study Number E00-1311		THPFOS	0	0	0	ISTD<70%	PFOS	5.295	191090	7.357605	
4/5/01 9:38	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0080.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.085	1474993	254	ISTD>130%	PFOS	5.302	170926	6.305766	
4/5/01 9:52	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0081.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.085	1466047	254	ISTD>130%	PFOS	5.302	88860	2.030021	
4/5/01 10:07	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0082.D	5mg/L PFOS Study Number E00-1311		THPFOS	5.084	1443304	254		PFOS	5.301	2902477	153.3541	
4/5/01 10:21	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0083.D	5 ng/mL PFOS in MeOH		THPFOS	5.087	1338206	254		PFOS	5.304	100507	2.63634	52.7%
4/5/01 10:36	D:\Chem\Hillary\H010404.b	SAMPLE	HILL0084.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.088	1274099	254		PFOS	5.296	4412461	238.5841	95.2%

Sample Batch H010412.b, analyzed on Hillary 04-12-01. *PFOS Adsorb/Desorb* samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 10-400.8 ng/mL
Batch method: H010412.m

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount	Compound Nam	RT	Area	Amount	
4/12/01 17:51	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0016.D	0 ng/mL PFOS in MeOH		THPFOS	5.106	1010690	254	PFOS	0	0	0	
4/12/01 18:05	D:\Chem\Hillary\H010412A.b	CALIB_1	HILL0017.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.105	1014600	254	PFOS	5.323	55595	1.292822	
4/12/01 18:19	D:\Chem\Hillary\H010412A.b	CALIB_2	HILL0018.D	5 ng/mL PFOS in MeOH		THPFOS	5.097	1026197	254	PFOS	5.314	99110	3.44801	69%
4/12/01 18:34	D:\Chem\Hillary\H010412A.b	CALIB_3	HILL0019.D	10 ng/mL PFOS in MeOH		THPFOS	5.105	1049688	254	PFOS	5.315	177299	7.180736	72%
4/12/01 18:48	D:\Chem\Hillary\H010412A.b	CALIB_4	HILL0020.D	25 ng/mL PFOS in MeOH		THPFOS	5.098	1021363	254	PFOS	5.308	486699	23.08844	92%
4/12/01 19:03	D:\Chem\Hillary\H010412A.b	CALIB_5	HILL0021.D	40 ng/mL PFOS in MeOH		THPFOS	5.093	1028355	254	PFOS	5.303	777632	37.59613	94%
4/12/01 19:17	D:\Chem\Hillary\H010412A.b	CALIB_6	HILL0022.D	50.1 ng/mL PFOS in MeO		THPFOS	5.098	1027805	254	PFOS	5.308	980853	47.89974	96%
4/12/01 19:31	D:\Chem\Hillary\H010412A.b	CALIB_7	HILL0023.D	75.1 ng/mL PFOS in MeO		THPFOS	5.105	1029130	254	PFOS	5.315	1465942	72.43472	96%
4/12/01 19:46	D:\Chem\Hillary\H010412A.b	CALIB_8	HILL0024.D	100.2 ng/mL PFOS in Me		THPFOS	5.105	1037720	254	PFOS	5.315	1929805	95.25518	95%
4/12/01 20:00	D:\Chem\Hillary\H010412A.b	CALIB_9	HILL0025.D	250.5 ng/mL PFOS in Me		THPFOS	5.104	1024280	254	PFOS	5.314	4613300	236.1376	94%
4/12/01 20:15	D:\Chem\Hillary\H010412A.b	CALIB_10	HILL0026.D	400.8 ng/mL PFOS in Me		THPFOS	5.106	1016328	254	PFOS	5.309	7015531	367.2555	92%
4/12/01 20:29	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0027.D	501 ng/mL PFOS in MeOH		THPFOS	5.106	1009794	254	PFOS	5.316	8452648	449.0379	90%
4/12/01 20:43	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0028.D	1002 ng/mL PFOS in MeO		THPFOS	5.104	1000810	254	PFOS	5.314	15272484	848.646	85%
4/13/01 7:02	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0071.D	0 ng/mL PFOS in MeOH		THPFOS	5.099	882895	254	PFOS	0	0	0	
4/13/01 7:17	D:\Chem\Hillary\H010412A.b	CALIB_11	HILL0072.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.099	892938	254	PFOS	5.309	53548	1.559602	
4/13/01 7:31	D:\Chem\Hillary\H010412A.b	CALIB_12	HILL0073.D	5 ng/mL PFOS in MeOH		THPFOS	5.096	895922	254	PFOS	5.307	98474	4.135939	83%
4/13/01 7:45	D:\Chem\Hillary\H010412A.b	CALIB_13	HILL0074.D	10 ng/mL PFOS in MeOH		THPFOS	5.098	899640	254	PFOS	5.308	180985	8.847021	88%
4/13/01 8:00	D:\Chem\Hillary\H010412A.b	CALIB_14	HILL0075.D	25 ng/mL PFOS in MeOH		THPFOS	5.099	884732	254	PFOS	5.316	474366	26.17914	105%
4/13/01 8:14	D:\Chem\Hillary\H010412A.b	CALIB_15	HILL0076.D	40 ng/mL PFOS in MeOH		THPFOS	5.092	900766	254	PFOS	5.302	771667	42.81933	107%
4/13/01 8:29	D:\Chem\Hillary\H010412A.b	CALIB_16	HILL0077.D	50.1 ng/mL PFOS in MeO		THPFOS	5.092	891237	254	PFOS	5.302	963004	54.47431	109%
4/13/01 8:43	D:\Chem\Hillary\H010412A.b	CALIB_17	HILL0078.D	75.1 ng/mL PFOS in MeO		THPFOS	5.098	894208	254	PFOS	5.308	1455847	83.09964	111%
4/13/01 8:58	D:\Chem\Hillary\H010412A.b	CALIB_18	HILL0079.D	100.2 ng/mL PFOS in Me		THPFOS	5.085	891115	254	PFOS	5.296	1905711	109.9345	110%
4/13/01 9:12	D:\Chem\Hillary\H010412A.b	CALIB_19	HILL0080.D	250.5 ng/mL PFOS in Me		THPFOS	5.09	885221	254	PFOS	5.308	4583269	272.6371	109%
4/13/01 9:26	D:\Chem\Hillary\H010412A.b	CALIB_20	HILL0081.D	400.8 ng/mL PFOS in Me		THPFOS	5.099	886337	254	PFOS	5.309	6974946	420.9773	105%
4/13/01 9:41	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0082.D	501 ng/mL PFOS in MeOH		THPFOS	5.097	884329	254	PFOS	5.3	8446498	515.6745	103%
4/13/01 9:55	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0083.D	1002 ng/mL PFOS in MeO		THPFOS	5.084	859448	254	PFOS	5.294	14868206	971.933	97%

Average: 888368.3077 1154879 +30%:
Std Dev: 10482.05486 621858 -30%:
%RSD: 1.2%

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount	Compound Nam	RT	Area	Amount	
4/12/01 17:22	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0014.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	
4/12/01 17:36	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0015.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	
4/12/01 20:58	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0029.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	
4/12/01 21:12	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0030.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	
4/13/01 0:19	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0043.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	
4/13/01 0:33	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0044.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	
4/13/01 3:41	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0057.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	
4/13/01 3:55	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0058.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	
4/13/01 6:33	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0069.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	
4/13/01 6:48	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0070.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	
4/13/01 10:10	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0084.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	
4/13/01 10:24	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0085.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0	

CMC 4/13/01

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area	Amount	Compound Nam	RT	Area	Amount	
4/12/01 21:26	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0031.D	1311-5184-S1		THPFOS	5.098	1421318	254	STD>130%PFOS	5.308	121664	2.881555	
4/12/01 21:41	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0032.D	1311-5185-S1		THPFOS	5.098	1386660	254	STD>130%PFOS	5.308	244130	7.549882	
4/12/01 21:55	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0033.D	1311-5186-S1		THPFOS	5.092	1359048	254	STD>130%PFOS	5.309	154787	4.341296	
4/12/01 22:10	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0034.D	1311-5186MS-S1		THPFOS	5.086	1167677	254	STD>130%PFOS	5.303	2811652	124.1501	
4/12/01 22:24	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0035.D	1311-5187--S1		THPFOS	0	0	0	ISTD<70% PFOS	5.293	290916	0	
4/12/01 22:38	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0036.D	1311-5188-S1		THPFOS	5.085	1378613	254	STD>130%PFOS	5.302	303230	9.81694	
4/12/01 22:53	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0037.D	1311-5189-S1		THPFOS	5.084	1378731	254	STD>130%PFOS	5.301	261759	8.262414	
4/12/01 23:07	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0038.D	1311-5189MS-S1		THPFOS	5.1	1203962	254	STD>130%PFOS	5.318	2936973	125.8164	
4/12/01 23:21	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0039.D	1311-5190-S1		THPFOS	5.091	1027099	254	PFOS	5.301	255948	11.32774	
4/12/01 23:36	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0040.D	1311-5191-S1		THPFOS	5.105	843460	254	PFOS	5.315	265286	14.70451	
4/12/01 23:50	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0041.D	5 ng/mL PFOS in MeOH		THPFOS	5.09	933401	254	PFOS	5.3	95650	3.752122	75.0%
4/13/01 0:05	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0042.D	25O.5 ng/mL PFOS in Me		THPFOS	5.093	909322	254	PFOS	5.303	4533055	262.1838	104.7%
4/13/01 0:48	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0045.D	1311-5192-S1		THPFOS	5.098	1068135	254	PFOS	5.316	142453	5.346159	
4/13/01 1:02	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0046.D	1311-5192MS-S1		THPFOS	5.111	819845	254	PFOS	5.322	3212267	204.5971	
4/13/01 1:17	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0047.D	1311-5202-S1		THPFOS	5.092	1481313	254	STD>130%PFOS	5.302	111849	2.360961	
4/13/01 1:31	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0048.D	1311-5203-S1		THPFOS	5.084	1430325	254	STD>130%PFOS	5.302	91312	1.759256	
4/13/01 1:45	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0049.D	1311-5204-S1		THPFOS	5.084	1442269	254	STD>130%PFOS	5.301	81813	1.392345	
4/13/01 2:00	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0050.D	1311-5204MS-S1		THPFOS	5.084	1273255	254	STD>130%PFOS	5.294	2746281	110.9006	
4/13/01 2:14	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0051.D	1311-5205-S1		THPFOS	5.084	1406869	254	STD>130%PFOS	5.301	242229	7.349539	
4/13/01 2:29	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0052.D	1311-5206-S1		THPFOS	5.092	1404007	254	STD>130%PFOS	5.309	188695	5.399388	
4/13/01 2:43	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0053.D	1311-5207-S1		THPFOS	5.083	1398417	254	STD>130%PFOS	5.301	183603	5.239191	
4/13/01 2:57	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0054.D	1311-5207MS-S1		THPFOS	5.084	1228700	254	STD>130%PFOS	5.301	2820818	118.2271	
4/13/01 3:12	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0055.D	5 ng/mL PFOS in MeOH		THPFOS	5.085	1163680	254	STD>130%PFOS	5.302	95002	2.67728	53.5%
4/13/01 3:26	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0056.D	25O.5 ng/mL PFOS in Me		THPFOS	5.092	1059764	254	PFOS	5.302	4415425	217.9421	87.0%
4/13/01 4:09	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0059.D	1311-5208-S1		THPFOS	5.084	1078804	254	PFOS	5.301	327252	14.12675	
4/13/01 4:24	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0060.D	1311-5209-S1		THPFOS	5.083	1062929	254	PFOS	5.293	266793	11.4209	
4/13/01 4:38	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0061.D	1311-5210-S1		THPFOS	5.096	1137098	254	PFOS	5.306	193712	7.255599	
4/13/01 4:53	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0062.D	1311-5210MS-S1		THPFOS	5.084	868940	254	PFOS	5.301	3239017	194.376	
4/13/01 5:07	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0063.D	1311-5211-S1		THPFOS	5.091	1076643	254	PFOS	5.308	342271	14.87953	
4/13/01 5:21	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0064.D	1311-5212-S1		THPFOS	5.091	1079410	254	PFOS	5.301	531168	23.89509	
4/13/01 5:36	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0065.D	1311-5213-S1		THPFOS	5.09	1083530	254	PFOS	5.307	545049	24.46187	
4/13/01 5:50	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0066.D	1311-5213MS-S1		THPFOS	5.097	872902	254	PFOS	5.307	3604117	215.9226	
4/13/01 6:05	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0067.D	5 ng/mL PFOS in MeOH		THPFOS	5.099	882171	254	PFOS	5.309	101365	4.393428	87.9%
4/13/01 6:19	D:\Chem\Hillary\H010412A.b	SAMPLE	HILL0068.D	25O.5 ng/mL PFOS in Me		THPFOS	5.098	851213	254	PFOS	5.315	4585830	284.0595	113.4%

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CMC-1/13/01

Sample Batch R0104012.b, analyzed on Rush 04-12-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 10-1002 ng/mL (2.5, 5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010412.m

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	CompoundRT	Area	Amount		CompoundRT	Area	Amount	
4/12/01 17:41	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0017.D	0 ng/mL PFOS in MeOH		THPFOS	5.583	598645	254	PFOS	0	0	0	
4/12/01 17:56	D:\Chem\Rush\R010412.b	CALIB_1	RUSH0018.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.585	600613	254	PFOS	5.795	124534	0	
4/12/01 18:10	D:\Chem\Rush\R010412.b	CALIB_2	RUSH0019.D	5 ng/mL PFOS in MeOH		THPFOS	5.585	601845	254	PFOS	5.788	162745	2.292686	45.9%
4/12/01 18:24	D:\Chem\Rush\R010412.b	CALIB_3	RUSH0020.D	10 ng/mL PFOS in MeOH		THPFOS	5.593	600915	254	PFOS	5.789	236433	7.373546	73.7%
4/12/01 18:39	D:\Chem\Rush\R010412.b	CALIB_4	RUSH0021.D	25 ng/mL PFOS in MeOH		THPFOS	5.574	597942	254	PFOS	5.777	479447	24.55608	98.2%
4/12/01 18:53	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0022.D	40 ng/mL PFOS in MeOH		THPFOS	5.58	601700	254	PFOS	5.783	712400	41.080268	102.4%
4/12/01 19:08	D:\Chem\Rush\R010412.b	CALIB_5	RUSH0023.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.588	602030	254	PFOS	5.784	860733	51.933337	103.7%
4/12/01 19:22	D:\Chem\Rush\R010412.b	CALIB_6	RUSH0024.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.577	604353	254	PFOS	5.774	1214934	78.261691	104.2%
4/12/01 19:36	D:\Chem\Rush\R010412.b	CALIB_7	RUSH0025.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.579	599001	254	PFOS	5.782	1517772	102.89232	102.7%
4/12/01 19:51	D:\Chem\Rush\R010412.b	CALIB_8	RUSH0026.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.587	592421	254	PFOS	5.79	3189495	251.02982	100.2%
4/12/01 20:05	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0027.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.58	598537	254	PFOS	5.783	4665182	395.00116	
4/12/01 20:19	D:\Chem\Rush\R010412.b	CALIB_9	RUSH0028.D	501 ng/mL PFOS in MeOH		THPFOS	5.581	586806	254	PFOS	5.785	5465982	494.621	98.7%
4/12/01 20:34	D:\Chem\Rush\R010412.b	CALIB_10	RUSH0029.D	1002 ng/mL PFOS in MeOH		THPFOS	5.585	586018	254	PFOS	5.788	9329369	1006.4382	
4/13/01 12:53	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0097.D	0 ng/mL PFOS in MeOH		THPFOS	5.543	576686	254	PFOS	0	0	0	
4/13/01 13:07	D:\Chem\Rush\R010412.b	CALIB_11	RUSH0098.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.554	579447	254	PFOS	5.764	108854	0	
4/13/01 13:22	D:\Chem\Rush\R010412.b	CALIB_12	RUSH0099.D	5 ng/mL PFOS in MeOH		THPFOS	5.559	584774	254	PFOS	5.762	146886	1.502829	30.1%
4/13/01 13:36	D:\Chem\Rush\R010412.b	CALIB_13	RUSH0100.D	10 ng/mL PFOS in MeOH		THPFOS	5.551	585534	254	PFOS	5.754	222698	6.829581	68.3%
4/13/01 13:50	D:\Chem\Rush\R010412.b	CALIB_14	RUSH0101.D	25 ng/mL PFOS in MeOH		THPFOS	5.549	579881	254	PFOS	5.752	463425	24.442741	97.8%
4/13/01 14:05	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0102.D	40 ng/mL PFOS in MeOH		THPFOS	5.551	577089	254	PFOS	5.754	683988	41.135446	102.6%
4/13/01 14:19	D:\Chem\Rush\R010412.b	CALIB_15	RUSH0103.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.545	576872	254	PFOS	5.748	831833	52.479175	104.7%
4/13/01 14:33	D:\Chem\Rush\R010412.b	CALIB_16	RUSH0104.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.555	579170	254	PFOS	5.758	1172649	78.947857	105.1%
4/13/01 14:48	D:\Chem\Rush\R010412.b	CALIB_17	RUSH0105.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.551	582102	254	PFOS	5.755	1482631	103.52283	103.3%
4/13/01 15:02	D:\Chem\Rush\R010412.b	CALIB_18	RUSH0106.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.558	578231	254	PFOS	5.761	3120176	251.71766	100.5%
4/13/01 15:17	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0107.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.551	570124	254	PFOS	5.754	4477040	398.70415	
4/13/01 15:31	D:\Chem\Rush\R010412.b	CALIB_19	RUSH0108.D	501 ng/mL PFOS in MeOH		THPFOS	5.553	566337	254	PFOS	5.756	5297025	497.2204	99.2%
4/13/01 15:45	D:\Chem\Rush\R010412.b	CALIB_20	RUSH0109.D	1002 ng/mL PFOS in MeOH		THPFOS	5.545	571690	254	PFOS	5.748	9058485	999.91911	

Average: 587644.7 763938 +30%:
Std Dev: 11704.42 411351 -30%:
%RSD: 2.0%

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	CompoundRT	Area	Amount		CompoundRT	Area	Amount	
4/12/01 17:13	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0015.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.8	92075	0	
4/12/01 17:27	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0016.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.799	71408	0	
4/12/01 20:48	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0030.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.797	88361	0	
4/12/01 21:03	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0031.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.795	74724	0	
4/13/01 0:09	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0044.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.785	70265	0	
4/13/01 0:24	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0045.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.782	66840	0	
4/13/01 3:31	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0058.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.793	69743	0	
4/13/01 3:45	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0059.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.776	66261	0	
4/13/01 6:52	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0072.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.792	67260	0	
4/13/01 7:06	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0073.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.769	63670	0	
4/13/01 9:16	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0082.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.763	66988	0	
4/13/01 9:31	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0083.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.762	62760	0	
4/13/01 12:09	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0094.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.764	67549	0	
4/13/01 12:24	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0095.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.777	60061	0	
4/13/01 12:38	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0096.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.775	59600	0	
4/13/01 16:00	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0110.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.79	76873	0	
4/13/01 16:14	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0111.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.768	61967	0	

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R010412.xls

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	CompoundRT	Area	Amount		CompoundRT	Area	Amount	
4/12/01 21:17	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0032.D	1311-5124-S1		THPFOS	5.56	677530	254	PFOS	5.77	3454739	235.14955	
4/12/01 21:31	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0033.D	1311-5125-S1		THPFOS	5.571	656863	254	PFOS	5.774	3355208	235.64253	
4/12/01 21:46	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0034.D	1311-5126-S1		THPFOS	5.557	633889	254	PFOS	5.753	3182334	230.80435	
4/12/01 22:00	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0035.D	1311-5126MS-S1		THPFOS	5.551	650748	254	PFOS	5.747	6054164	493.84798	
4/12/01 22:14	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0036.D	1311-5127-S1		THPFOS	5.566	615903	254	PFOS	5.769	444477	21.144501	
4/12/01 22:29	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0037.D	1311-5128-S1		THPFOS	5.572	613221	254	PFOS	5.782	168978	2.504388	
4/12/01 22:43	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0038.D	1311-5129-S1		THPFOS	5.565	606355	254	PFOS	0	0	0	
4/12/01 22:57	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0039.D	1311-5129MS-S1		THPFOS	5.565	485715	254	PFOS	5.775	2353905	221.25701	
4/12/01 23:12	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0040.D	1311-5130-S1		THPFOS	5.567	594618	254	PFOS	5.777	480775	24.842763	
4/12/01 23:26	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0041.D	1311-5131-S1		THPFOS	5.565	575974	254	PFOS	5.769	373656	18.057138	
4/12/01 23:40	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0042.D	5 ng/mL PFOS in MeOH		THPFOS	5.572	592560	254	PFOS	5.775	158302	2.158669	43.2%
4/12/01 23:55	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0043.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.553	586770	254	PFOS	5.756	3218501	256.73464	102.5%
4/13/01 0:38	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0046.D	1311-5132-S1		THPFOS	5.565	614286	254	PFOS	5.768	502482	25.246348	
4/13/01 0:52	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0047.D	1311-5132MS-S1		THPFOS	5.557	483260	254	PFOS	5.76	2628517	254.1411	
4/13/01 1:07	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0048.D	1311-5133-S1		THPFOS	5.565	587357	254	PFOS	5.775	1602422	112.23406	
4/13/01 1:21	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0049.D	1311-5134-S1		THPFOS	5.565	585569	254	PFOS	5.768	1852365	133.55448	
4/13/01 1:36	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0050.D	1311-5135-S1		THPFOS	5.572	585514	254	PFOS	5.775	1878850	135.81745	
4/13/01 1:50	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0051.D	1311-5135MS-S1		THPFOS	5.565	477977	254	PFOS	5.768	3662482	386.68394	
4/13/01 2:04	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0052.D	1311-5136-S1		THPFOS	5.566	565186	254	PFOS	5.769	1220182	85.185002	
4/13/01 2:19	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0053.D	1311-5137-S1		THPFOS	5.567	580244	254	PFOS	5.77	1144435	76.528101	
4/13/01 2:33	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0054.D	1311-5138-S1		THPFOS	5.564	577866	254	PFOS	5.767	1130123	75.760492	
4/13/01 2:47	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0055.D	1311-5138MS-S1		THPFOS	5.562	480568	254	PFOS	5.772	3167549	321.0065	
4/13/01 3:02	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0056.D	5 ng/mL PFOS in MeOH		THPFOS	5.559	577392	254	PFOS	5.769	157432	2.385234	47.7%
4/13/01 3:16	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0057.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.572	578945	254	PFOS	5.775	3179184	257.08626	102.6%
4/13/01 3:59	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0060.D	1311-5139-S1		THPFOS	5.551	595025	254	PFOS	5.754	2160001	157.04195	
4/13/01 4:14	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0061.D	1311-5140-S1		THPFOS	5.55	639476	254	PFOS	5.754	2298555	155.2245	
4/13/01 4:28	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0062.D	1311-5141-S1		THPFOS	5.557	616815	254	PFOS	5.761	2208338	154.50156	
4/13/01 4:43	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0063.D	1311-5141MS-S1		THPFOS	5.559	496627	254	PFOS	5.769	4097578	424.19511	
4/13/01 4:57	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0064.D	1311-5142-S1		THPFOS	5.558	608824	254	PFOS	5.768	1622807	109.20753	
4/13/01 5:11	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0065.D	1311-5143-S1		THPFOS	5.551	600876	254	PFOS	5.754	1479479	99.477125	
4/13/01 5:26	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0066.D	1311-5144-S1		THPFOS	5.565	607245	254	PFOS	5.775	1456259	96.43578	
4/13/01 5:40	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0067.D	1311-5144MS-S1		THPFOS	5.559	554564	254	PFOS	5.762	3859865	343.24391	
4/13/01 5:55	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0068.D	1311-5145-S1		THPFOS	5.572	600380	254	PFOS	5.775	214358	5.865127	
4/13/01 6:09	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0069.D	1311-5146-S1		THPFOS	5.545	588635	254	PFOS	0	0	0	
4/13/01 6:23	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0070.D	5 ng/mL PFOS in MeOH		THPFOS	5.562	584267	254	PFOS	5.772	152719	1.92182	38.4%
4/13/01 6:38	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0071.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.561	584334	254	PFOS	5.764	3226476	258.79876	103.3%
4/13/01 7:21	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0074.D	1311-5147-S1		THPFOS	5.565	602683	254	PFOS	0	0	0	
4/13/01 7:35	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0075.D	1311-5147MS-S1		THPFOS	5.558	481237	254	PFOS	5.761	2325043	220.44504	
4/13/01 7:50	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0076.D	1311-5148-S1		THPFOS	5.572	584694	254	PFOS	5.782	1727840	123.28243	
4/13/01 8:04	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0077.D	1311-5149-S1		THPFOS	5.571	579440	254	PFOS	5.775	1311565	90.083398	
4/13/01 8:18	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0078.D	1311-5150-S1		THPFOS	5.554	560769	254	PFOS	5.757	1985675	152.50789	
4/13/01 8:33	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0079.D	1311-5150MS-S1		THPFOS	5.565	464515	254	PFOS	5.775	3830754	423.93446	
4/13/01 8:47	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0080.D	5 ng/mL PFOS in MeOH		THPFOS	5.559	571261	254	PFOS	5.769	155989	2.401694	48.0%
4/13/01 9:02	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0081.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.551	577867	254	PFOS	5.754	3239422	263.57325	105.2%
4/13/01 9:45	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0084.D	1311-5151-S1		THPFOS	5.572	579739	254	PFOS	5.775	5190205	470.27597	
4/13/01 10:00	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0085.D	1311-5152-S1		THPFOS	5.561	567823	254	PFOS	5.757	5181003	481.76818	
4/13/01 10:14	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0086.D	1311-5153-S1		THPFOS	5.565	566066	254	PFOS	5.768	4993539	461.55284	
4/13/01 10:28	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0087.D	1311-5153MS-S1		THPFOS	5.549	451967	254	PFOS	5.752	6454778	867.49401	
4/13/01 10:43	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0088.D	1311-5154-S1		THPFOS	5.553	560862	254	PFOS	5.75	3101785	259.29449	
4/13/01 10:57	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0089.D	1311-5155-S1		THPFOS	5.566	547161	254	PFOS	5.769	3159998	273.24465	
4/13/01 11:12	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0090.D	1311-5156-S1		THPFOS	5.557	562481	254	PFOS	5.768	3121769	260.40515	
4/13/01 11:26	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0091.D	1311-5156MS-S1		THPFOS	5.554	446367	254	PFOS	5.757	4577579	559.64233	
4/13/01 11:41	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0092.D	5 ng/mL PFOS in MeOH		THPFOS	5.547	570884	254	PFOS	5.757	157988	2.553111	51.1%
4/13/01 11:55	D:\Chem\Rush\R010412.b	SAMPLE	RUSH0093.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.558	564635	254	PFOS	5.761	3184410	265.50383	106.0%

Sample Batch H010309.b, analyzed on Hillary 03-09-01. PFOS Adsorb/Desorb samples.
Standard curve range used for calibration of samples: 5-400.8 ng/mL (501 ng/mL std not included due to the low sample concentration range).
Batch method: H010309.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	
3/9/01 19:38	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0021.D	O ng/mL PFOS in MeOH		THPFOS	5.049	1073281	254	PFOS	0	0	0	
3/9/01 19:49	D:\Chem\Hillary\H010309.b	CALIB_1	HILL0022.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.041	1072804	254	PFOS	5.265	86451	2.270782	
3/9/01 20:01	D:\Chem\Hillary\H010309.b	CALIB_2	HILL0023.D	5 ng/mL PFOS in MeOH		THPFOS	5.05	1108750	254	PFOS	5.274	143416	4.248778	85%
3/9/01 20:12	D:\Chem\Hillary\H010309.b	CALIB_3	HILL0024.D	10 ng/mL PFOS in MeOH		THPFOS	5.042	1078365	254	PFOS	5.273	231909	7.730027	77%
3/9/01 20:24	D:\Chem\Hillary\H010309.b	CALIB_4	HILL0025.D	25 ng/mL PFOS in MeOH		THPFOS	5.035	1076706	254	PFOS	5.259	622426	22.54388	90%
3/9/01 20:35	D:\Chem\Hillary\H010309.b	CALIB_5	HILL0026.D	40 ng/mL PFOS in MeOH		THPFOS	5.039	1100085	254	PFOS	5.271	1029067	37.23449	93%
3/9/01 20:46	D:\Chem\Hillary\H010309.b	CALIB_6	HILL0027.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.043	1076389	254	PFOS	5.274	1260789	46.98954	94%
3/9/01 20:58	D:\Chem\Hillary\H010309.b	CALIB_7	HILL0028.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.036	1055026	254	PFOS	5.267	1838015	70.79131	94%
3/9/01 21:09	D:\Chem\Hillary\H010309.b	CALIB_8	HILL0029.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.045	1081297	254	PFOS	5.269	2464526	93.43521	92%
3/9/01 21:20	D:\Chem\Hillary\H010309.b	CALIB_9	HILL0030.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.044	1069673	254	PFOS	5.268	5867511	233.6441	93%
3/9/01 21:32	D:\Chem\Hillary\H010309.b	CALIB_10	HILL0031.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.036	1034737	254	PFOS	5.267	8794548	373.3181	93%
3/9/01 21:43	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0032.D	501 ng/mL PFOS in MeOH		THPFOS	5.036	1060526	254	PFOS	5.26	10677107	449.019	
3/10/01 19:09	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0145.D	O ng/mL PFOS in MeOH		THPFOS	5.023	868621	254	PFOS	0	0	0	
3/10/01 19:20	D:\Chem\Hillary\H010309.b	CALIB_11	HILL0146.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.015	870619	254	PFOS	5.246	79391	2.700768	
3/10/01 19:31	D:\Chem\Hillary\H010309.b	CALIB_12	HILL0147.D	5 ng/mL PFOS in MeOH		THPFOS	5.008	912239	254	PFOS	5.232	150012	5.673501	113%
3/10/01 19:43	D:\Chem\Hillary\H010309.b	CALIB_13	HILL0148.D	10 ng/mL PFOS in MeOH		THPFOS	5.013	886038	254	PFOS	5.237	233970	9.723374	97%
3/10/01 19:54	D:\Chem\Hillary\H010309.b	CALIB_14	HILL0149.D	25 ng/mL PFOS in MeOH		THPFOS	5.016	880755	254	PFOS	5.247	607127	27.10542	108%
3/10/01 20:05	D:\Chem\Hillary\H010309.b	CALIB_15	HILL0150.D	40 ng/mL PFOS in MeOH		THPFOS	5.008	920893	254	PFOS	5.232	998520	43.38523	108%
3/10/01 20:17	D:\Chem\Hillary\H010309.b	CALIB_16	HILL0151.D	50.1 ng/mL PFOS in MeOH		THPFOS	5.017	899166	254	PFOS	5.241	1226451	54.99273	110%
3/10/01 20:28	D:\Chem\Hillary\H010309.b	CALIB_17	HILL0152.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.015	876782	254	PFOS	5.246	1767680	82.31103	109%
3/10/01 20:40	D:\Chem\Hillary\H010309.b	CALIB_18	HILL0153.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.014	901662	254	PFOS	5.238	2372952	108.4295	108%
3/10/01 20:51	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0154.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.008	899022	254	PFOS	5.232	5738392	274.4434	110%
3/10/01 21:02	D:\Chem\Hillary\H010309.b	CALIB_20	HILL0155.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.009	898706	254	PFOS	5.233	8461603	417.364	104%
3/10/01 21:14	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0156.D	501 ng/mL PFOS in MeOH		THPFOS	5.014	899348	254	PFOS	5.238	10729909	541.808	
						Average:	**983395.417**			*+30%:*	*1278414*			
						Std Dev:	**94153.7839**			*-30%:*	*688377*			
						%RSD:	**9.6%**							
3/10/01 0:22	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0046.D	5 ng/mL PFOS in MeOH		THPFOS	5.029	1094159	254	PFOS	5.253	133354	3.9456	79%
3/10/01 0:33	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0047.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.031	1070122	254	PFOS	5.262	5756785	228.8609	91%
3/10/01 3:01	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0060.D	5 ng/mL PFOS in MeOH		THPFOS	5.028	1084793	254	PFOS	5.252	143353	4.362347	87%
3/10/01 3:13	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0061.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.029	1063455	254	PFOS	5.253	5711016	228.462	91%
3/10/01 5:41	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0074.D	5 ng/mL PFOS in MeOH		THPFOS	5.027	986230	254	PFOS	5.259	137467	4.656142	93%
3/10/01 5:52	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0075.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.023	978168	254	PFOS	5.247	5653787	246.9623	99%
3/10/01 8:20	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0088.D	5 ng/mL PFOS in MeOH		THPFOS	5.028	922698	254	PFOS	5.253	136789	5.015913	100%
3/10/01 8:31	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0089.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.021	906571	254	PFOS	5.245	5622338	266.1543	106%
3/10/01 10:59	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0102.D	5 ng/mL PFOS in MeOH		THPFOS	5.033	909132	254	PFOS	5.257	140176	5.256986	105%
3/10/01 11:11	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0103.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.035	908551	254	PFOS	5.266	5638922	266.3707	106%
3/10/01 13:39	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0116.D	5 ng/mL PFOS in MeOH		THPFOS	5.017	869545	254	PFOS	5.241	135055	5.302878	106%
3/10/01 13:50	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0117.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.021	872093	254	PFOS	5.245	5547134	273.4256	109%
3/10/01 16:07	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0129.D	5 ng/mL PFOS in MeOH		THPFOS	5.02	868500	254	PFOS	5.244	137478	5.423749	108%
3/10/01 16:18	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0130.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.017	870533	254	PFOS	5.241	5593809	276.4058	110%
3/10/01 18:23	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0141.D	5 ng/mL PFOS in MeOH		THPFOS	5.014	886391	254	PFOS	5.238	141405	5.473911	109%
3/10/01 18:35	D:\Chem\Hillary\H010309.b	CCALIB_1	HILL0142.D	250.5 ng/mL PFOS in MeOH		THPFOS	5.019	877878	254	PFOS	5.243	5639356	276.3196	110%

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Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount
3/9/01 19:15	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0019.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.33	20788	0
3/9/01 19:27	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0020.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/9/01 21:55	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0033.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.315	19572	0
3/9/01 22:06	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0034.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/9/01 22:17	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0035.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 0:45	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0048.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.315	9584	0
3/10/01 0:56	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0049.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 3:24	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0062.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.301	9496	0
3/10/01 3:36	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0063.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 6:03	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0076.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.294	9444	0
3/10/01 6:15	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0077.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 8:43	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0090.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 8:54	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0091.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 11:22	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0104.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.303	8675	0
3/10/01 11:34	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0105.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 14:02	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0118.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 14:13	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0119.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 16:30	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0131.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 16:41	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0132.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 18:46	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0143.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 18:57	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0144.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	0	0	0
3/10/01 21:25	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0157.D	TN-A 4802 MeOH		THPFOS	0	0	0	PFOS	5.28	17138	0

cmc 3/28/01 2064

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount
3/9/01 22:29	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0036.D	E00-1311-4103-S1		THPFOS	5.034	1056178	254	PFOS	5.266	234470	8.012285
3/9/01 22:40	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0037.D	E00-1311-4104-S1		THPFOS	5.038	1221819	254	PFOS	5.269	215844	6.1696
3/9/01 22:51	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0038.D	E00-1311-4105-S1		THPFOS	5.042	1028599	254	PFOS	5.266	237536	8.375534
3/9/01 23:03	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0039.D	E00-1311-4105-S1-MS		THPFOS	5.029	874849	254	PFOS	5.26	3963142	190.9672
3/9/01 23:14	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0040.D	E00-1311-4106-S1		THPFOS	5.036	1468017	254	PFOS	5.26	452939	11.53411
3/9/01 23:25	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0041.D	E00-1311-4107-S1		THPFOS	5.035	1055707	254	PFOS	5.266	325164	11.51244
3/9/01 23:37	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0042.D	E00-1311-4108-S1		THPFOS	5.026	1050237	254	PFOS	5.25	304848	10.78999
3/9/01 23:48	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0043.D	E00-1311-4108-S1-MS		THPFOS	5.029	865040	254	PFOS	5.26	4001498	195.2086
3/9/01 23:59	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0044.D	E00-1311-4109-S1		THPFOS	5.027	1073533	254	PFOS	5.258	173898	5.573715
3/10/01 0:11	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0045.D	E00-1311-4110-S1		THPFOS	5.031	1045079	254	PFOS	5.262	179135	5.956354
3/10/01 1:08	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0050.D	E00-1311-4111-S1		THPFOS	5.028	1036444	254	PFOS	5.259	165195	5.468121
3/10/01 1:19	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0051.D	E00-1311-4111-S1-MS		THPFOS	5.029	869342	254	PFOS	5.26	3920789	190.0809
3/10/01 1:30	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0052.D	E00-1311-4112-S1		THPFOS	5.035	1043258	254	PFOS	5.266	170915	5.648499
3/10/01 1:42	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0053.D	E00-1311-4113-S1		THPFOS	5.029	1053741	254	PFOS	5.26	176264	5.788465
3/10/01 1:53	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0054.D	E00-1311-4114-S1		THPFOS	5.032	1654927	254	PFOS	5.263	330413	7.103971
3/10/01 2:04	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0055.D	E00-1311-4114-S1-MS		THPFOS	5.028	836338	254	PFOS	5.252	3890653	196.3716
3/10/01 2:16	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0056.D	E00-1311-4115-S1		THPFOS	5.028	1046939	254	PFOS	5.252	177753	5.890369
3/10/01 2:27	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0057.D	E00-1311-4116-S1		THPFOS	5.028	1038327	254	PFOS	5.259	181171	6.081276
3/10/01 2:39	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0058.D	E00-1311-4117-S1		THPFOS	5.029	1024946	254	PFOS	5.253	164575	5.516164
3/10/01 2:50	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0059.D	E00-1311-4117-S1-MS		THPFOS	5.023	865270	254	PFOS	5.247	3867704	188.3056
3/10/01 3:47	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0064.D	E00-1311-4118-S1		THPFOS	5.029	996797	254	PFOS	5.254	180616	6.353969
3/10/01 3:58	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0065.D	E00-1311-4119-S1		THPFOS	5.022	1004358	254	PFOS	5.246	176677	6.139234
3/10/01 4:10	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0066.D	E00-1311-4120-S1		THPFOS	5.022	1012908	254	PFOS	5.253	176413	6.068331
3/10/01 4:21	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0067.D	E00-1311-4120-S1-MS		THPFOS	5.023	843094	254	PFOS	5.254	3760328	187.8729
3/10/01 4:32	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0068.D	E00-1311-4004-S2		THPFOS	5.027	941893	254	PFOS	0	0	0
3/10/01 4:44	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0069.D	E00-1311-4005-S2		THPFOS	5.028	914587	254	PFOS	0	0	0
3/10/01 4:55	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0070.D	E00-1311-4006-S2		THPFOS	5.028	910770	254	PFOS	0	0	0
3/10/01 5:06	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0071.D	E00-1311-4028-S2		THPFOS	5.029	951757	254	PFOS	5.253	270433	10.5406
3/10/01 5:18	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0072.D	E00-1311-4030-S2		THPFOS	5.031	912591	254	PFOS	5.255	264195	10.7588
3/10/01 5:29	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0073.D	E00-1311-4034-S2		THPFOS	5.029	919151	254	PFOS	5.253	58201	1.571008
3/10/01 6:26	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0078.D	E00-1311-4035-S2		THPFOS	5.028	924250	254	PFOS	0	0	0
3/10/01 6:38	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0079.D	E00-1311-4036-S2		THPFOS	5.03	924751	254	PFOS	0	0	0
3/10/01 6:49	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0080.D	E00-1311-4058-S2		THPFOS	5.028	879571	254	PFOS	5.259	230289	9.632074
3/10/01 7:00	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0081.D	E00-1311-4059-S2		THPFOS	5.022	889204	254	PFOS	5.246	260133	10.88282
3/10/01 7:12	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0082.D	E00-1311-4060-S2		THPFOS	5.027	808447	254	PFOS	5.258	290040	13.58092
3/10/01 7:23	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0083.D	E00-1311-4064-S2		THPFOS	5.029	870882	254	PFOS	0	0	0
3/10/01 7:34	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0084.D	E00-1311-4065-S2		THPFOS	5.021	914404	254	PFOS	0	0	0
3/10/01 7:46	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0085.D	E00-1311-4066-S2		THPFOS	5.027	869706	254	PFOS	0	0	0

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Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount
3/10/01 7:57	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0086.D	E00-1311-4088-S2		THPFOS	5.028	863099	254	PFOS	5.252	541521	24.56545
3/10/01 8:09	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0087.D	E00-1311-4089-S2		THPFOS	5.028	871362	254	PFOS	5.259	495693	22.1666
3/10/01 9:06	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0092.D	E00-1311-4090-S2		THPFOS	5.03	917602	254	PFOS	5.254	547710	23.31443
3/10/01 9:17	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0093.D	E00-1311-4094-S2		THPFOS	5.043	858296	254	PFOS	0	0	0
3/10/01 9:28	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0094.D	E00-1311-4095-S2		THPFOS	5.046	897083	254	PFOS	0	0	0
3/10/01 9:40	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0095.D	E00-1311-4096-S2		THPFOS	5.035	886919	254	PFOS	0	0	0
3/10/01 9:51	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0096.D	E00-1311-4118-S2		THPFOS	5.042	874070	254	PFOS	5.266	357854	15.64721
3/10/01 10:03	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0097.D	E00-1311-4119-S2		THPFOS	5.036	899816	254	PFOS	5.267	357623	15.15884
3/10/01 10:14	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0098.D	E00-1311-4120-S2		THPFOS	5.036	902577	254	PFOS	5.267	411360	17.54001
3/10/01 10:25	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0099.D	E00-1311-4004-S3		THPFOS	5.041	877509	254	PFOS	5.265	646257	29.04183
3/10/01 10:37	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0100.D	E00-1311-4005-S3		THPFOS	5.034	849226	254	PFOS	0	0	0
3/10/01 10:48	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0101.D	E00-1311-4006-S3		THPFOS	5.028	898143	254	PFOS	0	0	0
3/10/01 11:45	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0106.D	E00-1311-4028-S3		THPFOS	5.029	871502	254	PFOS	5.253	244415	10.39046
3/10/01 11:56	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0107.D	E00-1311-4030-S3		THPFOS	5.029	887421	254	PFOS	5.26	242159	10.08219
3/10/01 12:08	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0108.D	E00-1311-4035-S3		THPFOS	5.028	878559	254	PFOS	0	0	0
3/10/01 12:19	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0109.D	E00-1311-4036-S3		THPFOS	5.029	762849	254	PFOS	0	0	0
3/10/01 12:30	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0110.D	E00-1311-4058-S3		THPFOS	5.029	869217	254	PFOS	5.253	101283	3.728289
3/10/01 12:42	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0111.D	E00-1311-4059-S3		THPFOS	5.028	833081	254	PFOS	5.252	130273	5.345841
3/10/01 12:53	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0112.D	E00-1311-4060-S3		THPFOS	5.029	851363	254	PFOS	5.253	260640	11.43662
3/10/01 13:05	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0113.D	E00-1311-4064-S3		THPFOS	5.028	865697	254	PFOS	0	0	0
3/10/01 13:16	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0114.D	E00-1311-4065-S3		THPFOS	5.023	837908	254	PFOS	0	0	0
3/10/01 13:27	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0115.D	E00-1311-4066-S3		THPFOS	5.023	814470	254	PFOS	0	0	0
3/10/01 14:24	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0120.D	E00-1311-4088-S3		THPFOS	5.018	838311	254	PFOS	5.242	373867	17.14026
3/10/01 14:36	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0121.D	E00-1311-4089-S3		THPFOS	5.014	861294	254	PFOS	5.238	497521	22.52586
3/10/01 14:47	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0122.D	E00-1311-4090-S3		THPFOS	5.022	830608	254	PFOS	5.246	491684	23.11219
3/10/01 14:59	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0123.D	E00-1311-4094-S3		THPFOS	5.02	810226	254	PFOS	0	0	0
3/10/01 15:10	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0124.D	E00-1311-4095-S3		THPFOS	5.021	819327	254	PFOS	0	0	0
3/10/01 15:21	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0125.D	E00-1311-4096-S3		THPFOS	5.013	726839	254	PFOS	0	0	0
3/10/01 15:33	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0126.D	E00-1311-4118-S3		THPFOS	5.023	874200	254	PFOS	5.247	199280	8.254569
3/10/01 15:44	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0127.D	E00-1311-4119-S3		THPFOS	5.013	878280	254	PFOS	5.245	118886	4.49281
3/10/01 15:56	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0128.D	E00-1311-4120-S3		THPFOS	5.021	825209	254	PFOS	5.245	928893	45.09718
3/10/01 16:52	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0133.D	E00-1311-4004-S4		THPFOS	5.014	840917	254	PFOS	0	0	0
3/10/01 17:04	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0134.D	E00-1311-4005-S4		THPFOS	5.008	883425	254	PFOS	0	0	0
3/10/01 17:15	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0135.D	E00-1311-4006-S4		THPFOS	5.014	893529	254	PFOS	0	0	0
3/10/01 17:26	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0136.D	E00-1311-4028-S4		THPFOS	5.015	824667	254	PFOS	5.246	270001	12.30281
3/10/01 17:38	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0137.D	E00-1311-4030-S4		THPFOS	5.014	976257	254	PFOS	5.238	223658	8.300946
3/10/01 17:49	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0138.D	E00-1311-4034-S4		THPFOS	5.013	823949	254	PFOS	0	0	0
3/10/01 18:01	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0139.D	E00-1311-4035-S4		THPFOS	5.016	864200	254	PFOS	0	0	0
3/10/01 18:12	D:\Chem\Hillary\H010309.b	SAMPLE	HILL0140.D	E00-1311-4036-S4		THPFOS	5.016	823859	254	PFOS	0	0	0

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Sample Batch R010405.b, analyzed on Hillary 04-06-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 25-1002 ng/mL
Batch method: R010405.m

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area		Amount	Compound Na	RT	Area		Amount	
4/6/01 13:07	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0017.D	0 ng/mL PFOS in MeOH	THPFOS		5.573	539235	254		PFOS	0	0	0		
4/6/01 13:22	D:\Chem\Rush\R010405.b	CALIB_1	RUSH0018.D	2.5 ng/mL PFOS in MeOH	THPFOS		5.572	541201	254		PFOS	5.775	145698	0		
4/6/01 13:36	D:\Chem\Rush\R010405.b	CALIB_2	RUSH0019.D	5 ng/mL PFOS in MeOH	THPFOS		5.563	530210	254		PFOS	5.767	177596	0		0%
4/6/01 13:50	D:\Chem\Rush\R010405.b	CALIB_3	RUSH0020.D	10 ng/mL PFOS in MeOH	THPFOS		5.577	544175	254		PFOS	5.787	255188	4.252316		43%
4/6/01 14:05	D:\Chem\Rush\R010405.b	CALIB_4	RUSH0021.D	25 ng/mL PFOS in MeOH	THPFOS		5.571	556935	254		PFOS	5.774	520711	26.14863		105%
4/6/01 14:19	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0022.D	40 ng/mL PFOS in MeOH	THPFOS		5.573	575120	254		PFOS	5.776	778358	46.19528		115%
4/6/01 14:34	D:\Chem\Rush\R010405.b	CALIB_5	RUSH0023.D	50.1 ng/mL PFOS in MeOH	THPFOS		5.566	555475	254		PFOS	5.769	895968	58.81603		117%
4/6/01 14:48	D:\Chem\Rush\R010405.b	CALIB_6	RUSH0024.D	75.1 ng/mL PFOS in MeOH	THPFOS		5.563	560525	254		PFOS	5.766	1254456	89.78046		120%
4/6/01 15:02	D:\Chem\Rush\R010405.b	CALIB_7	RUSH0025.D	100.2 ng/mL PFOS in MeOH	THPFOS		5.557	564583	254		PFOS	5.76	1593523	119.474		119%
4/6/01 15:17	D:\Chem\Rush\R010405.b	CALIB_8	RUSH0026.D	250.5 ng/mL PFOS in MeOH	THPFOS		5.573	554331	254		PFOS	5.776	3289063	289.5214		116%
4/6/01 15:31	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0027.D	400.8 ng/mL PFOS in MeOH	THPFOS		5.564	565266	254		PFOS	5.767	4814176	446.0827		111%
4/6/01 15:45	D:\Chem\Rush\R010405.b	CALIB_9	RUSH0028.D	501 ng/mL PFOS in MeOH	THPFOS		5.561	588047	254		PFOS	5.764	5878253	542.0292		108%
4/6/01 16:00	D:\Chem\Rush\R010405.b	CALIB_10	RUSH0029.D	1002 ng/mL PFOS in MeOH	THPFOS		5.568	551336	254		PFOS	5.771	9460515	1071.163		107%
4/7/01 6:23	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0089.D	0 ng/mL PFOS in MeOH	THPFOS		5.573	559057	254		PFOS	0	0	0		
4/7/01 6:37	D:\Chem\Rush\R010405.b	CALIB_11	RUSH0090.D	2.5 ng/mL PFOS in MeOH	THPFOS		5.568	550680	254		PFOS	5.785	119802	0		
4/7/01 6:52	D:\Chem\Rush\R010405.b	CALIB_12	RUSH0091.D	5 ng/mL PFOS in MeOH	THPFOS		5.553	533362	254		PFOS	5.763	142789	0		0%
4/7/01 7:06	D:\Chem\Rush\R010405.b	CALIB_13	RUSH0092.D	10 ng/mL PFOS in MeOH	THPFOS		5.57	556117	254		PFOS	5.773	210206	0.031512		0%
4/7/01 7:20	D:\Chem\Rush\R010405.b	CALIB_14	RUSH0093.D	25 ng/mL PFOS in MeOH	THPFOS		5.561	553124	254		PFOS	5.771	430360	18.72559		75%
4/7/01 7:35	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0094.D	40 ng/mL PFOS in MeOH	THPFOS		5.559	576802	254		PFOS	5.762	643226	34.73718		87%
4/7/01 7:49	D:\Chem\Rush\R010405.b	CALIB_15	RUSH0095.D	50.1 ng/mL PFOS in MeOH	THPFOS		5.557	550084	254		PFOS	5.767	755748	47.18652		94%
4/7/01 8:04	D:\Chem\Rush\R010405.b	CALIB_16	RUSH0096.D	75.1 ng/mL PFOS in MeOH	THPFOS		5.554	548419	254		PFOS	5.764	1044359	73.14746		97%
4/7/01 8:18	D:\Chem\Rush\R010405.b	CALIB_17	RUSH0097.D	100.2 ng/mL PFOS in MeOH	THPFOS		5.561	553380	254		PFOS	5.764	1341441	99.1613		99%
4/7/01 8:32	D:\Chem\Rush\R010405.b	CALIB_18	RUSH0098.D	250.5 ng/mL PFOS in MeOH	THPFOS		5.558	530697	254		PFOS	5.768	2714138	242.7883		97%
4/7/01 8:47	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0099.D	400.8 ng/mL PFOS in MeOH	THPFOS		5.56	544285	254		PFOS	5.764	4031839	377.1597		94%
4/7/01 9:01	D:\Chem\Rush\R010405.b	CALIB_19	RUSH0100.D	501 ng/mL PFOS in MeOH	THPFOS		5.545	560821	254		PFOS	5.755	4912946	461.7658		92%
4/7/01 9:15	D:\Chem\Rush\R010405.b	CALIB_20	RUSH0101.D	1002 ng/mL PFOS in MeOH	THPFOS		5.551	525351	254		PFOS	5.754	7877904	900.0327		90%

Average: 552630.6923 718420 +30%:
Std Dev: 14747.09531 386841 -30%:
%RSD: 2.7%

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area		Amount	Compound Na	RT	Area		Amount
4/6/01 12:39	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0015.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.785	106775	0	
4/6/01 12:53	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0016.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.781	91016	0	
4/6/01 16:14	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0030.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.79	103874	0	
4/6/01 16:29	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0031.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.774	84825	0	
4/6/01 19:35	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0044.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.781	82678	0	
4/6/01 19:50	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0045.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.796	76114	0	
4/6/01 22:57	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0058.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.776	82141	0	
4/6/01 23:11	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0059.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.775	76802	0	
4/7/01 2:18	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0072.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.763	76352	0	
4/7/01 2:33	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0073.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.766	71081	0	
4/7/01 5:40	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0086.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.778	74088	0	
4/7/01 5:54	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0087.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.784	69593	0	
4/7/01 6:09	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0088.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.775	67762	0	
4/7/01 9:30	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0102.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.782	83254	0	
4/7/01 9:44	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0103.D	TN-A 4802 MeOH	THPFOS		0	0	0		PFOS	5.765	64445	0	

CMC 4/10/01
PB 1562

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound Na	RT	Area		Amount		Compound Na	RT	Area		Amount	
4/6/01 16:43	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0032.D	Study Number E00-1311		THPFOS	5.567	549655	254			PFOS	5.77	692574		41.69038	
4/6/01 16:57	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0033.D	Study Number E00-1311		THPFOS	5.569	546340	254			PFOS	5.765	614092		35.16084	
4/6/01 17:12	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0034.D	Study Number E00-1311		THPFOS	5.565	551952	254			PFOS	5.768	997270		68.33123	
4/6/01 17:26	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0035.D	Study Number E00-1311		THPFOS	5.567	543996	254			PFOS	5.777	3033445		268.9711	
4/6/01 17:40	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0036.D	Study Number E00-1311		THPFOS	5.559	556241	254			PFOS	5.762	266009		4.684134	
4/6/01 17:55	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0037.D	Study Number E00-1311		THPFOS	5.564	556136	254			PFOS	5.774	512785		25.53605	
4/6/01 18:09	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0038.D	Study Number E00-1311		THPFOS	5.563	557637	254			PFOS	0	0		0	
4/6/01 18:23	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0039.D	Study Number E00-1311		THPFOS	5.571	467615	254			PFOS	5.782	2253516		226.2934	
4/6/01 18:38	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0040.D	Study Number E00-1311		THPFOS	5.572	560192	254			PFOS	5.775	358332		12.22107	
4/6/01 18:52	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0041.D	Study Number E00-1311		THPFOS	5.571	553257	254			PFOS	5.781	341742		11.19223	
4/6/01 19:07	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0042.D	5 ng/mL PFOS in MeOH		THPFOS	5.559	577885	254			PFOS	0	0		0	0.0%
4/6/01 19:21	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0043.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.562	567895	254			PFOS	5.765	3181790		270.4896	108.0%
4/6/01 20:04	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0046.D	Study Number E00-1311		THPFOS	5.566	558163	254			PFOS	5.776	308908		8.188777	
4/6/01 20:18	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0047.D	Study Number E00-1311		THPFOS	5.558	546057	254			PFOS	5.761	2580190		221.0756	
4/6/01 20:33	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0048.D	Study Number E00-1311		THPFOS	5.565	558505	254			PFOS	5.775	800286		50.04657	
4/6/01 20:47	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0049.D	Study Number E00-1311		THPFOS	5.554	554244	254			PFOS	5.757	921208		61.22001	
4/6/01 21:02	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0050.D	Study Number E00-1311		THPFOS	5.546	550480	254			PFOS	5.749	965083		65.68839	
4/6/01 21:16	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0051.D	Study Number E00-1311		THPFOS	5.559	539432	254			PFOS	5.769	2988304		266.8858	
4/6/01 21:30	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0052.D	Study Number E00-1311		THPFOS	5.551	547053	254			PFOS	5.762	2199435		182.5679	
4/6/01 21:45	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0053.D	Study Number E00-1311		THPFOS	5.561	559047	254			PFOS	5.764	2334379		190.9566	
4/6/01 21:59	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0054.D	Study Number E00-1311		THPFOS	5.566	549045	254			PFOS	5.769	2803089		242.2879	
4/6/01 22:13	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0055.D	Study Number E00-1311		THPFOS	5.589	543578	254			PFOS	5.792	4428533		422.8252	
4/6/01 22:28	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0056.D	5 ng/mL PFOS in MeOH		THPFOS	5.564	563324	254			PFOS	0	0		0	0.0%
4/6/01 22:42	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0057.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.572	566595	254			PFOS	5.775	3078172		260.7912	104.1%
4/6/01 23:25	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0060.D	Study Number E00-1311		THPFOS	5.561	551418	254			PFOS	0	0		0	
4/6/01 23:40	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0061.D	Study Number E00-1311		THPFOS	5.57	563119	254			PFOS	0	0		0	
4/6/01 23:54	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0062.D	Study Number E00-1311		THPFOS	5.565	551121	254			PFOS	0	0		0	
4/7/01 0:09	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0063.D	Study Number E00-1311		THPFOS	5.561	533687	254			PFOS	5.771	2297114		197.9487	
4/7/01 0:23	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0064.D	Study Number E00-1311		THPFOS	5.568	559718	254			PFOS	5.778	305322		7.818031	
4/7/01 0:37	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0065.D	Study Number E00-1311		THPFOS	5.561	538081	254			PFOS	5.771	269990		5.7797	
4/7/01 0:52	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0066.D	Study Number E00-1311		THPFOS	5.551	549935	254			PFOS	5.761	280197		6.14042	
4/7/01 1:06	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0067.D	Study Number E00-1311		THPFOS	5.565	536497	254			PFOS	5.768	2329314		199.9928	
4/7/01 1:21	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0068.D	Study Number E00-1311		THPFOS	5.567	548462	254			PFOS	0	0		0	
4/7/01 1:35	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0069.D	Study Number E00-1311		THPFOS	5.561	553442	254			PFOS	0	0		0	
4/7/01 1:49	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0070.D	5 ng/mL PFOS in MeOH		THPFOS	5.547	544796	254			PFOS	0	0		0	0.0%
4/7/01 2:04	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0071.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.556	549611	254			PFOS	5.759	2913640		253.3329	101.1%
4/7/01 2:47	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0074.D	Study Number E00-1311		THPFOS	5.56	539554	254			PFOS	0	0		0	
4/7/01 3:01	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0075.D	Study Number E00-1311		THPFOS	5.561	530879	254			PFOS	5.764	2181139		187.322	
4/7/01 3:16	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0076.D	Study Number E00-1311		THPFOS	5.549	538799	254			PFOS	0	0		0	
4/7/01 3:30	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0077.D	Study Number E00-1311		THPFOS	5.557	550406	254			PFOS	0	0		0	
4/7/01 3:45	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0078.D	Study Number E00-1311		THPFOS	5.552	540857	254			PFOS	5.762	218149		1.206327	
4/7/01 3:59	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0079.D	Study Number E00-1311		THPFOS	5.544	518943	254			PFOS	5.747	2172754		191.5666	
4/7/01 4:13	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0080.D	Study Number E00-1311		THPFOS	5.562	538710	254			PFOS	5.773	738133		47.25497	
4/7/01 4:28	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0081.D	Study Number E00-1311		THPFOS	5.546	544277	254			PFOS	5.756	865021		57.65922	
4/7/01 4:42	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0082.D	Study Number E00-1311		THPFOS	5.549	552811	254			PFOS	5.752	981309		66.77067	
4/7/01 4:57	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0083.D	Study Number E00-1311		THPFOS	5.547	537984	254			PFOS	5.757	2761164		243.8076	
4/7/01 5:11	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0084.D	5 ng/mL PFOS in MeOH		THPFOS	5.552	544157	254			PFOS	0	0		0	0.0%
4/7/01 5:25	D:\Chem\Rush\R010405.b	SAMPLE	RUSH0085.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.558	535679	254			PFOS	5.759	2787890		247.8607	98.9%

Sample Batch R010402b.b, analyzed on Rush 04-02-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Slg/Sed.
Standard curve range used for calibration of samples: 10-1002 ng/mL (2.5 and 5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010402b.m

Inj Date	Batch	SampType	File	Sample Name	Misc In	Compoun	RT	Area	Amount	Compoun	RT	Area	Amount	
4/3/01 8:10	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0104.D	0 ng/mL PFOS in MeOH	THPFOS	5.545	691265	254	PFOS	0	0	0		
4/3/01 8:24	D:\Chem\Rush\R010402.b	CALIB_1	RUSH0105.D	2.5 ng/mL PFOS in MeOH	THPFOS	5.546	707691	254	PFOS	5.756	192592	0		
4/3/01 8:38	D:\Chem\Rush\R010402.b	CALIB_2	RUSH0106.D	5 ng/mL PFOS in MeOH	THPFOS	5.558	726641	254	PFOS	5.768	249725	1.588495	31.8%	
4/3/01 8:53	D:\Chem\Rush\R010402.b	CALIB_3	RUSH0107.D	10 ng/mL PFOS in MeOH	THPFOS	5.553	702679	254	PFOS	5.757	339511	7.167098	71.7%	
4/3/01 9:07	D:\Chem\Rush\R010402.b	CALIB_4	RUSH0108.D	25 ng/mL PFOS in MeOH	THPFOS	5.553	711476	254	PFOS	5.756	641983	24.24615	97.0%	
4/3/01 9:21	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0109.D	40 ng/mL PFOS in MeOH	THPFOS	5.543	695068	254	PFOS	5.739	905841	41.026119	102.3%	
4/3/01 9:36	D:\Chem\Rush\R010402.b	CALIB_5	RUSH0110.D	50.1 ng/mL PFOS in MeOH	THPFOS	5.553	697300	254	PFOS	5.749	1085138	51.837004	103.5%	
4/3/01 9:50	D:\Chem\Rush\R010402.b	CALIB_6	RUSH0111.D	75.1 ng/mL PFOS in MeOH	THPFOS	5.55	709991	254	PFOS	5.753	1535613	78.469104	104.5%	
4/3/01 10:04	D:\Chem\Rush\R010402.b	CALIB_7	RUSH0112.D	100.2 ng/mL PFOS in MeOH	THPFOS	5.541	709014	254	PFOS	5.744	1912604	102.76639	102.6%	
4/3/01 10:19	D:\Chem\Rush\R010402.b	CALIB_8	RUSH0113.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.544	744829	254	PFOS	5.747	4147316	246.4199	98.4%	
4/3/01 10:33	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0114.D	400.8 ng/mL PFOS in MeOH	THPFOS	5.546	710505	254	PFOS	5.749	5754500	391.55477		
4/3/01 10:48	D:\Chem\Rush\R010402.b	CALIB_9	RUSH0115.D	501 ng/mL PFOS in MeOH	THPFOS	5.54	719310	254	PFOS	5.743	6939227	488.84633	97.6%	
4/3/01 11:02	D:\Chem\Rush\R010402.b	CALIB_10	RUSH0116.D	1002 ng/mL PFOS in MeOH	THPFOS	5.542	745057	254	PFOS	5.745	12088828	974.5569		
4/3/01 22:19	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0163.D	0 ng/mL PFOS in MeOH	THPFOS	5.537	619245	254	PFOS	0	0	0		
4/3/01 22:33	D:\Chem\Rush\R010402.b	CALIB_11	RUSH0164.D	2.5 ng/mL PFOS in MeOH	THPFOS	5.544	643440	254	PFOS	5.747	181340	0		
4/3/01 22:47	D:\Chem\Rush\R010402.b	CALIB_12	RUSH0165.D	5 ng/mL PFOS in MeOH	THPFOS	5.548	655629	254	PFOS	5.758	238783	2.406374	48.1%	
4/4/01 23:02	D:\Chem\Rush\R010402.b	CALIB_13	RUSH0166.D	10 ng/mL PFOS in MeOH	THPFOS	5.551	629187	254	PFOS	5.754	311745	7.661761	76.6%	
4/4/01 23:16	D:\Chem\Rush\R010402.b	CALIB_14	RUSH0167.D	25 ng/mL PFOS in MeOH	THPFOS	5.53	639165	254	PFOS	5.733	614103	26.666053	106.7%	
4/4/01 23:30	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0168.D	40 ng/mL PFOS in MeOH	THPFOS	5.551	649746	254	PFOS	5.747	872886	42.732009	106.6%	
4/4/01 23:45	D:\Chem\Rush\R010402.b	CALIB_15	RUSH0169.D	50.1 ng/mL PFOS in MeOH	THPFOS	5.559	650311	254	PFOS	5.762	1054849	54.680469	109.1%	
4/4/01 10:08	D:\Chem\Rush\R010402.b	CALIB_16	RUSH0170.D	75.1 ng/mL PFOS in MeOH	THPFOS	5.625	717155	254	PFOS	5.828	1572840	79.825492	106.3%	
4/4/01 10:22	D:\Chem\Rush\R010402.b	CALIB_17	RUSH0171.D	100.2 ng/mL PFOS in MeOH	THPFOS	5.609	686050	254	PFOS	5.819	1906689	106.54576	106.3%	
4/4/01 10:37	D:\Chem\Rush\R010402.b	CALIB_18	RUSH0172.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.599	714496	254	PFOS	5.81	4102314	255.81083	102.1%	
4/4/01 10:51	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0173.D	400.8 ng/mL PFOS in MeOH	THPFOS	5.595	669513	254	PFOS	5.805	5711729	418.05636		
4/4/01 11:05	D:\Chem\Rush\R010402.b	CALIB_19	RUSH0174.D	501 ng/mL PFOS in MeOH	THPFOS	5.594	683159	254	PFOS	5.797	6776340	506.61571	101.1%	
4/4/01 11:20	D:\Chem\Rush\R010402.b	CALIB_20	RUSH0175.D	1002 ng/mL PFOS in MeOH	THPFOS	5.593	707430	254	PFOS	5.796	11937411	1028.811		

Average: 689821.2308 896768 +30%:
Std Dev: 34866.78097 482875 -30%:
%RSD: 5.1%

Cmc 4/5/01
Pg 1 of 3

Sample Batch R010402b.b, analyzed on Rush 04-02-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Slg/Sed.
Standard curve range used for calibration of samples: 10-1002 ng/mL (2.5 and 5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010402b.m

Inj Date	Batch	SampType	File	Sample Name	Misc In	Compoun RT	Area	Amount		Compoun RT		Area	Amount
4/3/01 7:41	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0102.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.772	131207	0
4/3/01 7:55	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0103.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.764	128138	0
4/3/01 11:16	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0117.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.768	153626	0
4/3/01 11:31	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0118.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.771	130584	0
4/3/01 11:45	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0119.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.764	126241	0
4/3/01 14:52	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0132.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.764	130330	0
4/3/01 15:07	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0133.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.765	119643	0
4/3/01 18:14	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0146.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.763	122906	0
4/3/01 18:28	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0147.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.77	120557	0
4/3/01 21:35	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0160.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.761	145239	0
4/3/01 21:50	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0161.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.764	143817	0
4/3/01 22:04	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0162.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.768	144439	0
4/4/01 11:34	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0176.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.818	154900	0
4/4/01 11:49	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0177.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.824	133822	0

Sample Batch R010402b.b, analyzed on Rush 04-02-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Slg/Sed.
Standard curve range used for calibration of samples: 10-1002 ng/mL (2.5 and 5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010402b.m

Inj Date	Batch	SampType	File	Sample Name	Misc In	Compoun	RT	Area	Amount		Compoun	RT	Area	Amount	
4/3/01 11:59	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0120.D	Study Number E00-1311	THPFOS		5.554	725886	254		PFOS	5.757	978597	42.932438	
4/3/01 12:14	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0121.D	Study Number E00-1311	THPFOS		5.547	690051	254		PFOS	5.75	933343	43.120798	
4/3/01 12:28	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0122.D	Study Number E00-1311	THPFOS		5.558	701604	254		PFOS	5.761	940734	42.621787	
4/3/01 12:43	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0123.D	Study Number E00-1311	THPFOS		5.55	577118	254		PFOS	5.76	3533131	276.70087	
4/3/01 12:57	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0124.D	Study Number E00-1311	THPFOS		5.558	667527	254		PFOS	5.754	2610383	160.75044	
4/3/01 13:11	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0125.D	Study Number E00-1311	THPFOS		5.554	674789	254		PFOS	5.757	2478325	149.07008	
4/3/01 13:26	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0126.D	Study Number E00-1311	THPFOS		5.552	668248	254		PFOS	5.755	2680467	165.7409	
4/3/01 13:40	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0127.D	Study Number E00-1311	THPFOS		5.546	550211	254		PFOS	5.749	4917918	443.49026	
4/3/01 13:55	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0128.D	Study Number E00-1311	THPFOS		5.553	652849	254		PFOS	5.749	5170053	380.66422	
4/3/01 14:09	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0129.D	Study Number E00-1311	THPFOS		5.552	655706	254		PFOS	5.755	5129723	374.88948	
4/3/01 14:23	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0130.D	5 ng/mL PFOS in MeOH	THPFOS		5.549	680355	254		PFOS	5.759	253055	2.715008	54.3%
4/3/01 14:38	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0131.D	250.5 ng/mL PFOS in MeOH	THPFOS		5.54	693668	254		PFOS	5.751	4099082	264.97215	105.8%
4/3/01 15:21	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0134.D	Study Number E00-1311	THPFOS		5.544	680330	254		PFOS	5.747	5372136	379.28766	
4/3/01 15:35	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0135.D	Study Number E00-1311	THPFOS		5.547	570439	254		PFOS	5.75	7416165	721.85686	
4/3/01 15:50	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0136.D	Study Number E00-1311	THPFOS		5.552	656434	254		PFOS	5.755	2754639	174.99347	
4/3/01 16:04	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0137.D	Study Number E00-1311	THPFOS		5.56	674502	254		PFOS	5.763	2672733	163.32509	
4/3/01 16:19	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0138.D	Study Number E00-1311	THPFOS		5.54	679000	254		PFOS	5.743	2840570	174.34555	
4/3/01 16:33	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0139.D	Study Number E00-1311	THPFOS		5.548	660801	254		PFOS	5.751	5013884	360.82333	
4/3/01 16:47	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0140.D	Study Number E00-1311	THPFOS		5.554	684382	254		PFOS	5.757	1412950	74.086291	
4/3/01 17:02	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0141.D	Study Number E00-1311	THPFOS		5.547	688891	254		PFOS	5.75	1505023	79.446466	1588.9%
4/3/01 17:16	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0142.D	Study Number E00-1311	THPFOS		5.54	667236	254		PFOS	5.744	1329804	70.91215	28.3%
4/3/01 17:31	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0143.D	Study Number E00-1311	THPFOS		5.549	669472	254		PFOS	5.752	3830875	254.76073	
4/3/01 17:45	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0144.D	5 ng/mL PFOS in MeOH	THPFOS		5.551	711232	254		PFOS	5.754	247651	1.768823	35.4%
4/3/01 17:59	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0145.D	250.5 ng/mL PFOS in MeOH	THPFOS		5.553	711428	254		PFOS	5.756	4044257	252.72329	100.9%
4/3/01 18:43	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0148.D	Study Number E00-1311	THPFOS		5.555	918872	254	STD>130%	PFOS	0	0	0	
4/3/01 18:57	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0149.D	Study Number E00-1311	THPFOS		5.54	885106	254		PFOS	0	0	0	
4/3/01 19:11	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0150.D	Study Number E00-1311	THPFOS		5.546	945311	254	STD>130%	PFOS	0	0	0	
4/3/01 19:26	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0151.D	Study Number E00-1311	THPFOS		5.54	703724	254		PFOS	5.743	2896965	170.99756	
4/3/01 19:40	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0152.D	Study Number E00-1311	THPFOS		5.544	856144	254		PFOS	0	0	0	
4/3/01 19:55	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0153.D	Study Number E00-1311	THPFOS		5.534	834838	254		PFOS	0	0	0	
4/3/01 20:09	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0154.D	Study Number E00-1311	THPFOS		5.539	816843	254		PFOS	0	0	0	
4/3/01 20:23	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0155.D	Study Number E00-1311	THPFOS		5.539	623341	254		PFOS	5.742	2925075	200.24318	
4/3/01 20:38	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0156.D	Study Number E00-1311	THPFOS		5.55	851433	254		PFOS	0	0	0	
4/3/01 20:52	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0157.D	Study Number E00-1311	THPFOS		5.543	837861	254		PFOS	0	0	0	
4/3/01 21:07	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0158.D	5 ng/mL PFOS in MeOH	THPFOS		5.55	641250	254		PFOS	5.753	234427	2.461139	49.2%
4/3/01 21:21	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0159.D	250.5 ng/mL PFOS in MeOH	THPFOS		5.554	631991	254		PFOS	5.757	3979419	286.41899	114.3%

Sample Batch R010402a.b, analyzed on Rush 04-02-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 5-~~1002~~ ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010402a.m SD1 @ CMC 5/15/01

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	Compound	RT	Area	Amount		Compound	RT	Area	Amount	
4/2/01 12:30	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0022.D	O ng/mL PFOS in MeOH		THPFOS	5.549	673492	254		PFOS	0	0	0	
4/2/01 12:44	D:\Chem\Rush\R010402.b	CALIB_1	RUSH0023.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.55	687494	254		PFOS	5.76	201953	1.38861	
4/2/01 12:59	D:\Chem\Rush\R010402.b	CALIB_2	RUSH0024.D	5 ng/mL PFOS in MeOH		THPFOS	5.559	717007	254		PFOS	5.769	259654	3.944702	78.9%
4/2/01 13:13	D:\Chem\Rush\R010402.b	CALIB_3	RUSH0025.D	1O ng/mL PFOS in MeOH		THPFOS	5.553	692713	254		PFOS	5.763	339488	8.769619	87.7%
4/2/01 13:27	D:\Chem\Rush\R010402.b	CALIB_4	RUSH0026.D	25 ng/mL PFOS in MeOH		THPFOS	5.559	698171	254		PFOS	5.769	641564	25.343497	101.4%
4/2/01 13:42	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0027.D	4O ng/mL PFOS in MeOH		THPFOS	5.553	694018	254		PFOS	5.763	908997	40.988941	102.2%
4/2/01 13:56	D:\Chem\Rush\R010402.b	CALIB_5	RUSH0028.D	5O.1 ng/mL PFOS in MeOH		THPFOS	5.557	699817	254		PFOS	5.767	1106262	52.140717	104.1%
4/2/01 14:11	D:\Chem\Rush\R010402.b	CALIB_6	RUSH0029.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.558	708280	254		PFOS	5.768	1545079	77.738587	103.5%
4/2/01 14:25	D:\Chem\Rush\R010402.b	CALIB_7	RUSH0030.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.559	701188	254		PFOS	5.769	1912602	102.07183	101.9%
4/2/01 14:39	D:\Chem\Rush\R010402.b	CALIB_8	RUSH0031.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.567	732842	254		PFOS	5.77	4155372	250.46887	100.0%
4/2/01 14:54	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0032.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.561	711160	254		PFOS	5.764	5885914	406.28894	
4/2/01 15:08	D:\Chem\Rush\R010402.b	CALIB_9	RUSH0033.D	501 ng/mL PFOS in MeOH		THPFOS	5.564	714631	254		PFOS	5.774	6981587	505.86859	101.0%
4/2/01 15:22	D:\Chem\Rush\R010402.b	CALIB_10	RUSH0034.D	1002 ng/mL PFOS in MeOH		THPFOS	5.567	739760	254		PFOS	5.77	12248403	1053.3589	
4/3/01 8:10	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0104.D	O ng/mL PFOS in MeOH		THPFOS	5.545	691238	254		PFOS	0	0	0	
4/3/01 8:24	D:\Chem\Rush\R010402.b	CALIB_11	RUSH0105.D	2.5 ng/mL PFOS in MeOH		THPFOS	5.546	707818	254		PFOS	5.756	193236	0.616118	
4/3/01 8:38	D:\Chem\Rush\R010402.b	CALIB_12	RUSH0106.D	5 ng/mL PFOS in MeOH		THPFOS	5.558	726641	254		PFOS	5.768	249725	3.252923	65.1%
4/3/01 8:53	D:\Chem\Rush\R010402.b	CALIB_13	RUSH0107.D	1O ng/mL PFOS in MeOH		THPFOS	5.553	702679	254		PFOS	5.757	339511	8.507324	85.1%
4/3/01 9:07	D:\Chem\Rush\R010402.b	CALIB_14	RUSH0108.D	25 ng/mL PFOS in MeOH		THPFOS	5.553	711476	254		PFOS	5.756	641983	24.690572	98.8%
4/3/01 9:21	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0109.D	4O ng/mL PFOS in MeOH		THPFOS	5.543	695068	254		PFOS	5.739	905841	40.723752	101.6%
4/3/01 9:36	D:\Chem\Rush\R010402.b	CALIB_15	RUSH0110.D	5O.1 ng/mL PFOS in MeOH		THPFOS	5.553	697300	254		PFOS	5.749	1085138	51.118799	102.0%
4/3/01 9:50	D:\Chem\Rush\R010402.b	CALIB_16	RUSH0111.D	75.1 ng/mL PFOS in MeOH		THPFOS	5.55	709991	254		PFOS	5.753	1535613	76.928129	102.4%
4/3/01 10:04	D:\Chem\Rush\R010402.b	CALIB_17	RUSH0112.D	100.2 ng/mL PFOS in MeOH		THPFOS	5.541	709014	254		PFOS	5.744	1912604	100.70449	100.5%
4/3/01 10:19	D:\Chem\Rush\R010402.b	CALIB_18	RUSH0113.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.544	744829	254		PFOS	5.747	4147316	244.83253	97.7%
4/3/01 10:33	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0114.D	400.8 ng/mL PFOS in MeOH		THPFOS	5.546	710505	254		PFOS	5.749	5754500	394.96094	
4/3/01 10:48	D:\Chem\Rush\R010402.b	CALIB_19	RUSH0115.D	501 ng/mL PFOS in MeOH		THPFOS	5.54	719310	254		PFOS	5.743	6939227	497.41946	99.3%
4/3/01 11:02	D:\Chem\Rush\R010402.b	CALIB_20	RUSH0116.D	1002 ng/mL PFOS in MeOH		THPFOS	5.542	745057	254		PFOS	5.745	12088828	1022.9766	

Average: 709288.4 922075 +30%:
Std Dev: 17649.55 496502 -30%:
%RSD: 2.5%

CMC 4/4/01 Pg 1 of 1

Sample Batch R010402a.b, analyzed on Rush 04-02-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: ~~5-4002~~ ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010402a.m 50A curve 5/15/01

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	CompoundRT	Area	Amount		CompoundRT		Area	Amount
4/2/01 12:01	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0020.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.764	155059	0
4/2/01 12:16	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0021.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.771	133949	0
4/2/01 15:37	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0035.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.792	160821	0
4/2/01 15:51	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0036.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.78	138099	0
4/2/01 18:15	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0046.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.77	138330	0
4/2/01 18:29	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0047.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.761	134138	0
4/2/01 21:36	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0060.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.792	136128	0
4/2/01 21:51	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0061.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.771	130679	0
4/3/01 0:58	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0074.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.754	139503	0
4/3/01 1:12	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0075.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.754	127186	0
4/3/01 4:19	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0088.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.778	129477	0
4/3/01 4:34	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0089.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.774	128456	0
4/3/01 7:41	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0102.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.772	131523	0
4/3/01 7:55	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0103.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.764	125537	0
4/3/01 11:16	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0117.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.768	153626	0
4/3/01 11:31	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0118.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.771	130584	0
4/3/01 11:45	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0119.D	TN-A 4802 MeOH	THPFOS	0	0	0		PFOS	5.764	126241	0

Sample Batch R010402a.b, analyzed on Rush 04-02-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Slg/Sed.
Standard curve range used for calibration of samples: ~~5-1002~~ ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010402a.m 501 conc 5/15/01

Inj Date	Batch	SampType	File	Sample Name	Misc Inf	CompoundRT	Area	Amount		CompoundRT	Area	Amount	
4/2/01 16:06	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0037.D	Study Number E00-1311		THPFOS	5.56	720158	254	PFOS	5.764	1429691	69.243301	
4/2/01 16:20	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0038.D	Study Number E00-1311		THPFOS	5.546	709660	254	PFOS	5.749	1319817	63.879261	
4/2/01 16:34	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0039.D	Study Number E00-1311		THPFOS	5.556	722650	254	PFOS	5.759	1351379	64.31529	
4/2/01 16:49	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0040.D	Study Number E00-1311		THPFOS	5.548	707567	254	PFOS	5.751	3835296	236.73617	
4/2/01 17:03	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0041.D	Study Number E00-1311		THPFOS	5.548	713572	254	PFOS	5.758	6391949	450.7897	
4/2/01 17:17	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0042.D	Study Number E00-1311		THPFOS	5.546	724968	254	PFOS	5.756	4812925	305.70323	
4/2/01 17:32	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0043.D	Study Number E00-1311		THPFOS	5.554	721402	254	PFOS	5.757	5198125	339.49098	
4/2/01 17:46	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0044.D	5 ng/mL PFOS in MeOH		THPFOS	5.546	753692	254	PFOS	5.756	266077	3.60348	72.1%
4/2/01 18:01	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0045.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.551	746193	254	PFOS	5.754	4140558	243.77425	97.3%
4/2/01 18:44	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0048.D	Study Number E00-1311		THPFOS	5.554	710136	254	PFOS	5.757	7163224	528.02219	
4/2/01 18:58	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0049.D	Study Number E00-1311		THPFOS	5.551	709407	254	PFOS	5.761	2197087	119.09938	
4/2/01 19:13	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0050.D	Study Number E00-1311		THPFOS	5.56	687539	254	PFOS	5.77	928960	42.675468	
4/2/01 19:27	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0051.D	Study Number E00-1311		THPFOS	5.563	693912	254	PFOS	5.766	697046	28.725867	
4/2/01 19:41	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0052.D	Study Number E00-1311		THPFOS	5.557	573314	254	PFOS	5.76	3034950	229.85155	
4/2/01 19:56	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0053.D	Study Number E00-1311		THPFOS	5.558	689156	254	PFOS	5.768	2174774	121.84417	
4/2/01 20:10	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0054.D	Study Number E00-1311		THPFOS	5.555	698632	254	PFOS	5.765	2284600	127.2331	
4/2/01 20:24	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0055.D	Study Number E00-1311		THPFOS	5.558	701032	254	PFOS	5.761	2386809	133.63027	
4/2/01 20:39	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0056.D	Study Number E00-1311		THPFOS	5.564	697975	254	PFOS	5.767	4749637	315.49117	
4/2/01 20:53	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0057.D	Study Number E00-1311		THPFOS	5.566	722953	254	PFOS	5.769	1411113	67.811262	
4/2/01 21:08	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0058.D	5 ng/mL PFOS in MeOH		THPFOS	5.575	742816	254	PFOS	5.792	262089	3.595994	71.9%
4/2/01 21:22	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0059.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.56	738144	254	PFOS	5.77	4133826	246.60414	98.4%
4/2/01 22:05	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0062.D	Study Number E00-1311		THPFOS	5.561	724679	254	PFOS	5.764	1328107	62.727361	
4/2/01 22:20	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0063.D	Study Number E00-1311		THPFOS	5.56	732716	254	PFOS	5.763	1708104	84.309464	
4/2/01 22:34	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0064.D	Study Number E00-1311		THPFOS	5.551	709950	254	PFOS	5.747	4317226	273.50922	
4/2/01 22:48	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0065.D	Study Number E00-1311		THPFOS	5.541	717003	254	PFOS	0	0	0	
4/3/01 23:03	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0066.D	Study Number E00-1311		THPFOS	5.546	703450	254	PFOS	0	0	0	
4/3/01 23:17	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0067.D	Study Number E00-1311		THPFOS	5.541	699666	254	PFOS	0	0	0	
4/3/01 23:31	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0068.D	Study Number E00-1311		THPFOS	5.533	585285	254	PFOS	5.736	2892741	211.04908	
4/3/01 23:46	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0069.D	Study Number E00-1311		THPFOS	5.539	675221	254	PFOS	5.742	643295	26.676048	
4/3/01 0:00	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0070.D	Study Number E00-1311		THPFOS	5.532	679762	254	PFOS	5.735	647862	26.69003	
4/3/01 0:15	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0071.D	Study Number E00-1311		THPFOS	5.533	576140	254	PFOS	5.736	3230023	246.93617	
4/3/01 0:29	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0072.D	5 ng/mL PFOS in MeOH		THPFOS	5.535	704091	254	PFOS	5.745	259698	4.196199	83.9%
4/3/01 0:43	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0073.D	25O.5 ng/mL PFOS in MeOH		THPFOS	5.543	709848	254	PFOS	5.739	4132026	258.85952	103.3%

Sample Batch R010402a.b, analyzed on Rush 04-02-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 5-~~1662~~ ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010402a.m SDI QQCmc 5/15/01

4/3/01 1:27	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0076.D	Study Number E00-1311	THPFOS	5.565	700501	254	PFOS	5.761	1988079	107.11332	
4/3/01 1:41	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0077.D	Study Number E00-1311	THPFOS	5.552	679568	254	PFOS	5.755	1990346	111.28782	
4/3/01 1:55	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0078.D	Study Number E00-1311	THPFOS	5.56	670067	254	PFOS	5.763	1886695	106.22388	
4/3/01 2:10	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0079.D	Study Number E00-1311	THPFOS	5.544	568572	254	PFOS	5.741	4300957	361.44666	
4/3/01 2:24	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0080.D	Study Number E00-1311	THPFOS	5.54	650461	254	PFOS	5.743	4141363	289.87301	
4/3/01 2:38	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0081.D	Study Number E00-1311	THPFOS	5.533	638505	254	PFOS	5.736	3611282	249.67287	
4/3/01 2:53	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0082.D	Study Number E00-1311	THPFOS	5.539	648526	254	PFOS	5.735	3972287	276.01481	
4/3/01 3:07	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0083.D	Study Number E00-1311	THPFOS	5.534	560495	254	PFOS	5.737	6061330	580.02025	
4/3/01 3:22	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0084.D	Study Number E00-1311	THPFOS	5.54	660562	254	PFOS	5.743	1849680	105.37736	
4/3/01 3:36	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0085.D	Study Number E00-1311	THPFOS	5.531	672433	254	PFOS	5.734	2010670	114.12314	
4/3/01 3:50	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0086.D	5 ng/mL PFOS in MeOH	THPFOS	5.543	700545	254	PFOS	5.753	254899	4.00928	80.2%
4/3/01 4:05	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0087.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.554	709410	254	PFOS	5.757	4162725	261.48317	104.4%
4/3/01 5:02	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0091.D	Study Number E00-1311	THPFOS	5.551	669389	254	PFOS	5.754	4302522	293.38551	
4/3/01 5:17	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0092.D	Study Number E00-1311	THPFOS	5.546	683096	254	PFOS	5.75	6535234	491.9271	
4/3/01 5:31	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0093.D	Study Number E00-1311	THPFOS	5.543	683769	254	PFOS	5.746	6711588	509.06131	
4/3/01 5:45	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0094.D	Study Number E00-1311	THPFOS	5.54	702574	254	PFOS	5.743	6936083	513.00765	
4/3/01 6:00	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0095.D	Study Number E00-1311	THPFOS	5.553	672540	254	PFOS	5.749	8479425	715.92273	
4/3/01 6:14	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0096.D	Study Number E00-1311	THPFOS	5.544	690375	254	PFOS	0	0	0	
4/3/01 6:29	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0097.D	Study Number E00-1311	THPFOS	5.544	677814	254	PFOS	0	0	0	
4/3/01 6:43	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0098.D	Study Number E00-1311	THPFOS	5.544	674569	254	PFOS	0	0	0	
4/3/01 6:57	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0099.D	Study Number E00-1311	THPFOS	5.539	565914	254	PFOS	5.742	2730205	204.82416	
4/3/01 7:12	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0100.D	5 ng/mL PFOS in MeOH	THPFOS	5.545	710818	254	PFOS	5.755	259422	4.0507	81.0%
4/3/01 7:26	D:\Chem\Rush\R010402.b	SAMPLE	RUSH0101.D	250.5 ng/mL PFOS in MeOH	THPFOS	5.547	699529	254	PFOS	5.75	4064532	258.26619	103.1%

HG 3-20-01 p. 1 of 3

Sample Batch R010314.b, analyzed on Hillary 03-14-01. PFOS Adsorb/Desorb samples. Matrix: Sediment.
Standard curve range used for calibration of samples: 2.5-250.5 ng/mL (400.8 and 501 ng/mL std not included due to the lower sample concentration range).
Batch method: R010314t.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	%Dev
3/14/01 21:05	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0017.D	01003-07-01		THPFOS	5.48	1009005	254	PFOS	0.00	0	0.0	
3/14/01 21:19	D:\chem\Rush.i\R010314.b	CALIB_1	RUSH0018.D	01003-07-02		THPFOS	5.47	1002399	254	PFOS	5.68	129429	2.7	108.0%
3/14/01 21:33	D:\chem\Rush.i\R010314.b	CALIB_2	RUSH0019.D	01003-07-03		THPFOS	5.46	1006538	254	PFOS	5.68	209405	5.5	109.3%
3/14/01 21:48	D:\chem\Rush.i\R010314.b	CALIB_3	RUSH0020.D	01003-07-04		THPFOS	5.45	1013743	254	PFOS	5.67	338471	9.9	99.3%
3/14/01 22:02	D:\chem\Rush.i\R010314.b	CALIB_4	RUSH0021.D	01003-07-05		THPFOS	5.46	1002095	254	PFOS	5.67	783497	26.3	105.1%
3/14/01 22:16	D:\chem\Rush.i\R010314.b	CALIB_5	RUSH0022.D	01003-07-06		THPFOS	5.46	1014289	254	PFOS	5.68	1209876	41.9	104.8%
3/14/01 22:31	D:\chem\Rush.i\R010314.b	CALIB_6	RUSH0023.D	01003-07-07		THPFOS	5.46	998269	254	PFOS	5.68	1458055	52.5	104.7%
3/14/01 22:45	D:\chem\Rush.i\R010314.b	CALIB_7	RUSH0024.D	01003-07-08		THPFOS	5.47	1016405	254	PFOS	5.68	2128988	78.5	104.3%
3/14/01 23:00	D:\chem\Rush.i\R010314.b	CALIB_8	RUSH0025.D	01003-07-09		THPFOS	5.47	1001184	254	PFOS	5.69	2648411	102.3	102.1%
3/14/01 23:14	D:\chem\Rush.i\R010314.b	CALIB_9	RUSH0026.D	01003-07-10		THPFOS	5.46	1022553	254	PFOS	5.68	5889029	257.9	103.0%
3/14/01 23:28	D:\chem\Rush.i\R010314.b	CALIB_10	RUSH0027.D	01003-07-11		THPFOS	5.46	1019780	254	PFOS	5.67	8711721	427.4	XX
3/14/01 23:43	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0028.D	01003-07-12		THPFOS	5.46	1018171	254	PFOS	5.68	10307257	536.5	XX
3/15/01 2:49	D:\chem\Rush.i\R010314.b	CCALIB_1	RUSH0041.D	01003-07-03		THPFOS	5.47	1050373	254	PFOS	5.69	194784	4.7	93.4%
3/15/01 3:03	D:\chem\Rush.i\R010314.b	CCALIB_1	RUSH0042.D	01003-07-10		THPFOS	5.47	1036120	254	PFOS	5.69	5934195	256.1	102.3%
3/15/01 6:10	D:\chem\Rush.i\R010314.b	CCALIB_1	RUSH0055.D	01003-07-03		THPFOS	5.47	1050495	254	PFOS	5.69	196061	4.7	94.3%
3/15/01 6:24	D:\chem\Rush.i\R010314.b	CCALIB_1	RUSH0056.D	01003-07-10		THPFOS	5.48	1042671	254	PFOS	5.69	5889851	251.8	100.5%
3/15/01 9:31	D:\chem\Rush.i\R010314.b	CCALIB_1	RUSH0069.D	01003-07-03		THPFOS	5.47	1051910	254	PFOS	5.69	188546	4.5	89.1%
3/15/01 9:45	D:\chem\Rush.i\R010314.b	CCALIB_1	RUSH0070.D	01003-07-10		THPFOS	5.46	1047495	254	PFOS	5.68	5823836	246.9	98.6%
3/15/01 12:52	D:\chem\Rush.i\R010314.b	CCALIB_1	RUSH0083.D	01003-07-03		THPFOS	5.47	1051525	254	PFOS	5.69	187794	4.4	88.6%
3/15/01 13:06	D:\chem\Rush.i\R010314.b	CCALIB_1	RUSH0084.D	01003-07-10		THPFOS	5.46	1042848	254	PFOS	5.68	5774991	245.7	98.1%
3/15/01 13:50	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0087.D	01003-07-01		THPFOS	5.47	1053861	254	PFOS	0.00	0	0.0	
3/15/01 14:04	D:\chem\Rush.i\R010314.b	CALIB_11	RUSH0088.D	01003-07-02		THPFOS	5.47	1050989	254	PFOS	5.69	121720	2.2	89.4%
3/15/01 14:18	D:\chem\Rush.i\R010314.b	CALIB_12	RUSH0089.D	01003-07-03		THPFOS	5.46	1056424	254	PFOS	5.68	183452	4.3	85.2%
3/15/01 14:33	D:\chem\Rush.i\R010314.b	CALIB_13	RUSH0090.D	01003-07-04		THPFOS	5.47	1041839	254	PFOS	5.69	317434	8.9	88.9%
3/15/01 14:47	D:\chem\Rush.i\R010314.b	CALIB_14	RUSH0091.D	01003-07-05		THPFOS	5.47	1040134	254	PFOS	5.69	756712	24.3	97.0%
3/15/01 15:01	D:\chem\Rush.i\R010314.b	CALIB_15	RUSH0092.D	01003-07-06		THPFOS	5.47	1051034	254	PFOS	5.68	1162752	38.6	96.5%
3/15/01 15:16	D:\chem\Rush.i\R010314.b	CALIB_16	RUSH0093.D	01003-07-07		THPFOS	5.46	1043368	254	PFOS	5.68	1426057	48.7	97.3%
3/15/01 15:30	D:\chem\Rush.i\R010314.b	CALIB_17	RUSH0094.D	01003-07-08		THPFOS	5.46	1052178	254	PFOS	5.68	2081314	73.6	97.8%
3/15/01 15:44	D:\chem\Rush.i\R010314.b	CALIB_18	RUSH0095.D	01003-07-09		THPFOS	5.46	1038121	254	PFOS	5.68	2616038	96.7	96.6%
3/15/01 15:59	D:\chem\Rush.i\R010314.b	CALIB_19	RUSH0096.D	01003-07-10		THPFOS	5.46	1028679	254	PFOS	5.68	5630191	242.1	96.7%
3/15/01 16:13	D:\chem\Rush.i\R010314.b	CALIB_20	RUSH0097.D	01003-07-11		THPFOS	5.46	1035833	254	PFOS	5.68	8331328	394.9	XX
3/15/01 16:28	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0098.D	01003-07-12		THPFOS	5.47	1034919	254	PFOS	5.68	9922517	498.5	XX

Average: 1032038.969
Std Dev: 18725
%RSD: 1.8%

QC IS range (+/- 30% average):
+30%: 1341651
-30%: 722427

Sample Batch R010314.b, analyzed on Hillary 03-14-01. PFOS Adsorb/Desorb samples. Matrix: Sediment.
Standard curve range used for calibration of samples: 2.5-250.5 ng/mL (400.8 and 501 ng/mL std not included due to the lower sample concentration range).
Batch method: R010314t.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount
3/15/01 0:26	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0031.D	1311-4121-S1		THPFOS	5.47	1425324	254	PFOS	0.00	0	0.0
3/15/01 0:40	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0032.D	1311-4122-S1		THPFOS	5.47	1078944	254	PFOS	0.00	0	0.0
3/15/01 0:54	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0033.D	1311-4123-S1		THPFOS	5.47	1090803	254	PFOS	0.00	0	0.0
3/15/01 1:09	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0034.D	1311-4123MS-S1		THPFOS	5.47	931360	254	PFOS	5.68	4322756	197.9
3/15/01 1:23	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0035.D	1311-4124-S1		THPFOS	5.48	1093465	254	PFOS	0.00	0	0.0
3/15/01 1:37	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0036.D	1311-4125-S1		THPFOS	5.48	1057249	254	PFOS	0.00	0	0.0
3/15/01 1:52	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0037.D	1311-4126-S1		THPFOS	5.46	1038845	254	PFOS	0.00	0	0.0
3/15/01 2:06	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0038.D	1311-4126MS-S1		THPFOS	5.48	903745	254	PFOS	5.69	4220111	199.4
3/15/01 2:20	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0039.D	1311-4127-S1		THPFOS	5.48	1084923	254	PFOS	5.69	1155260	37.0
3/15/01 2:35	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0040.D	1311-4128-S1		THPFOS	5.48	1074853	254	PFOS	5.69	4106846	156.8
3/15/01 3:47	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0045.D	1311-4129-S1		THPFOS	5.48	1660202	254	PFOS	5.70	1343718	27.3
3/15/01 4:01	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0046.D	1311-4129MS-S1		THPFOS	5.48	947684	254	PFOS	5.69	5004132	231.6
3/15/01 4:15	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0047.D	1311-4130-S1		THPFOS	5.48	1095965	254	PFOS	5.69	799984	24.3
3/15/01 4:30	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0048.D	1311-4131-S1		THPFOS	5.49	1091572	254	PFOS	5.70	725496	21.9
3/15/01 4:44	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0049.D	1311-4132-S1		THPFOS	5.48	1101888	254	PFOS	5.69	822873	25.0
3/15/01 4:58	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0050.D	1311-4132MS-S1		THPFOS	5.49	919194	254	PFOS	5.71	4874564	232.9
3/15/01 5:13	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0051.D	1311-4133-S1		THPFOS	5.48	1073078	254	PFOS	5.69	729534	22.5
3/15/01 5:27	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0052.D	1311-4134-S1		THPFOS	5.51	1081264	254	PFOS	5.73	759438	23.3
3/15/01 5:41	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0053.D	1311-4135-S1		THPFOS	5.48	1077793	254	PFOS	5.69	769202	23.7
3/15/01 5:56	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0054.D	1311-4135MS-S1		THPFOS	5.48	921307	254	PFOS	5.70	4762247	225.7
~~3/15/01 7:07~~	~~D:\chem\Rush.i\R010314.b~~	~~SAMPLE~~	~~RUSH0069.D~~	~~1311-4136-S1~~	-	~~THPFOS~~	~~0.00~~	~~0~~	~~0~~	~~PFOS~~	~~5.63~~	~~23881~~	~~0.0~~
3/15/01 7:22	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0060.D	1311-4137-S1		THPFOS	5.48	1099389	254	PFOS	5.69	757619	22.8
3/15/01 7:36	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0061.D	1311-4138-S1		THPFOS	5.47	1083504	254	PFOS	5.69	757822	23.2
3/15/01 7:50	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0062.D	1311-4138MS-S1		THPFOS	5.47	947454	254	PFOS	5.69	4939810	228.1
3/15/01 8:05	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0063.D	1311-4139-S1		THPFOS	5.47	1086262	254	PFOS	5.69	684895	20.7
3/15/01 8:19	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0064.D	1311-4140-S1		THPFOS	5.47	1087521	254	PFOS	5.69	677314	20.4
3/15/01 8:34	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0065.D	1311-4141-S1		THPFOS	5.48	1075484	254	PFOS	5.69	687097	21.0
3/15/01 8:48	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0066.D	1311-4141MS-S1		THPFOS	5.47	915669	254	PFOS	5.68	4776931	228.2
3/15/01 9:02	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0067.D	1311-4142-S1		THPFOS	5.48	1079679	254	PFOS	5.70	673507	20.4
3/15/01 9:17	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0068.D	1311-4143-S1		THPFOS	5.47	1108514	254	PFOS	5.69	716747	21.3
3/15/01 10:29	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0073.D	1311-4144-S1		THPFOS	5.48	1091080	254	PFOS	5.70	688862	20.7
3/15/01 10:43	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0074.D	1311-4144MS-S1		THPFOS	5.46	895662	254	PFOS	5.69	4609795	224.5
3/15/01 10:57	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0075.D	1311-4145-S1		THPFOS	5.47	1070260	254	PFOS	5.69	640428	19.5
3/15/01 11:12	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0076.D	1311-4146-S1		THPFOS	5.46	1090781	254	PFOS	5.68	644391	19.2
3/15/01 11:26	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0077.D	1311-4147-S1		THPFOS	5.47	1088406	254	PFOS	5.69	636594	19.0
3/15/01 11:40	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0078.D	1311-4147MS-S1		THPFOS	5.46	898964	254	PFOS	5.68	4605162	223.2
3/15/01 11:55	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0079.D	1311-4148-S1		THPFOS	5.47	1055605	254	PFOS	5.68	649889	20.1
3/15/01 12:09	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0080.D	1311-4149-S1		THPFOS	5.47	1052012	254	PFOS	5.68	645335	20.0
3/15/01 12:23	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0081.D	1311-4150-S1		THPFOS	5.47	1055409	254	PFOS	5.69	651186	20.2
3/15/01 12:38	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0082.D	1311-4150MS-S1		THPFOS	5.47	887792	254	PFOS	5.69	4565770	224.3

Average: 1062023
Std Dev: 137692
%RSD: 13.0%

E00-1311 PFOS Ads/Des

3M Environmental Laboratory

Sample Batch R010314.b, analyzed on Hillary 03-14-01. PFOS Adsorb/Desorb samples. Matrix: Sediment.
Standard curve range used for calibration of samples: 2.5-250.5 ng/mL (400.8 and 501 ng/mL std not included due to the lower sample concentration range).
Batch method: R010314t.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount
3/14/01 20:36	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0015.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.70	40923	0.0
3/14/01 20:50	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0016.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.63	29136	0.0
3/14/01 23:57	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0029.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.69	40534	0.0
3/15/01 0:11	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0030.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.63	30463	0.0
3/15/01 3:18	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0043.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.64	33501	0.0
3/15/01 3:32	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0044.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.64	26360	0.0
3/15/01 6:39	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0057.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.69	57454	0.0
3/15/01 6:53	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0058.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.70	51654	0.0
3/15/01 10:00	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0071.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.69	57753	0.0
3/15/01 10:14	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0072.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.68	53172	0.0
3/15/01 13:21	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0085.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.68	57830	0.0
3/15/01 13:35	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0086.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.70	45965	0.0
3/15/01 16:43	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0099.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.68	56083	0.0
3/15/01 16:57	D:\chem\Rush.i\R010314.b	SAMPLE	RUSH0100.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.68	47554	0.0

Sample Batch R010309.b, analyzed on Rush 03-09-01. PFOS Adsorb/Desorb samples. Matrix: Cntrl and Soils 1,2, & 3.
Standard curve range used for calibration of samples: 10-501 ng/mL (2.5, and 5 ng/mL std not included due to the higher sample concentration range).
Batch method: R010314t.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	ompound Name	RT	Area	Amount	ompound Name	RT	Area	Amount	
3/9/01 20:26	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0022.D	01003-07-01		THPFOS	5.571	1468051	254	PFOS	5.711	467665	9.0	
3/9/01 20:37	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0023.D	01003-07-02	2.5 ng/mL PFOS	THPFOS	5.569	1464363	254	PFOS	5.779	400427	6.6	
3/9/01 20:48	D:\chem\Rush.i\R010309.b	CALIB_1	RUSH0024.D	01003-07-03	5.0 ng/mL PFOS	THPFOS	5.566	1466531	254	PFOS	5.783	226905	2.9	X
3/9/01 21:00	D:\chem\Rush.i\R010309.b	CALIB_2	RUSH0025.D	01003-07-04	10 ng/mL PFOS	THPFOS	5.579	1454968	254	PFOS	5.789	408798	7.6	76%
3/9/01 21:11	D:\chem\Rush.i\R010309.b	CALIB_3	RUSH0026.D	01003-07-05	25 ng/ML PFOS	THPFOS	5.579	1451878	254	PFOS	5.796	1016639	23.6	94%
3/9/01 21:22	D:\chem\Rush.i\R010309.b	CALIB_4	RUSH0027.D	01003-07-06	40 ng/mL PFOS	THPFOS	5.577	1446455	254	PFOS	5.794	1557482	38.3	96%
3/9/01 21:33	D:\chem\Rush.i\R010309.b	CALIB_5	RUSH0028.D	01003-07-07	50 ng/mL PFOS	THPFOS	5.566	1446507	254	PFOS	5.783	1933591	48.6	97%
3/9/01 21:44	D:\chem\Rush.i\R010309.b	CALIB_6	RUSH0029.D	01003-07-08	75.1 ng/mL PFOS	THPFOS	5.572	1431459	254	PFOS	5.782	2767322	73.0	97%
3/9/01 21:56	D:\chem\Rush.i\R010309.b	CALIB_7	RUSH0030.D	01003-07-09	100.2 ng/mL PFOS	THPFOS	5.563	1426618	254	PFOS	5.773	3545665	96.3	96%
3/9/01 22:07	D:\chem\Rush.i\R010309.b	CALIB_8	RUSH0031.D	01003-07-10	250.5 ng/mL PFOS	THPFOS	5.557	1421352	254	PFOS	5.767	7811414	236.5	94%
3/9/01 22:18	D:\chem\Rush.i\R010309.b	CALIB_9	RUSH0032.D	01003-07-11	400.8 ng/mL PFOS	THPFOS	5.553	1446399	254	PFOS	5.764	11707065	375.1	94%
3/9/01 22:29	D:\chem\Rush.i\R010309.b	CALIB_10	RUSH0033.D	01003-07-12	501 ng/mL PFOS	THPFOS	5.566	1409274	254	PFOS	5.776	13729087	471.6	94%
3/10/01 0:54	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0046.D	5 ng/mL PFOS		THPFOS	5.55	1275681	254	PFOS	5.76	213475	3.4	below LOQ
3/10/01 1:06	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0047.D	250.5 ng/mL PFOS		THPFOS	5.55	1266963	254	PFOS	5.76	7409689	254.4	102%
3/10/01 3:31	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0060.D	01003-07-03		THPFOS	5.538	1199867	254	PFOS	5.748	207290	3.6	below LOQ
3/10/01 3:42	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0061.D	01003-07-10		THPFOS	5.547	1189673	254	PFOS	5.764	7301061	269.2	107%
3/10/01 6:07	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0074.D	01003-07-03		THPFOS	5.536	1186907	254	PFOS	5.753	209110	3.7	below LOQ
3/10/01 6:19	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0075.D	01003-07-10		THPFOS	5.548	1174775	254	PFOS	5.758	7206080	269.1	107%
3/10/01 8:44	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0088.D	01003-07-03		THPFOS	5.539	1189770	254	PFOS	5.756	211149	3.7	below LOQ
3/10/01 8:55	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0089.D	01003-07-10		THPFOS	5.543	1195540	254	PFOS	5.76	7439383	273.7	109%
3/10/01 11:21	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0102.D	01003-07-03		THPFOS	5.565	1228262	254	PFOS	5.775	216178	3.7	
3/10/01 11:32	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0103.D	01003-07-10		THPFOS	5.552	1192842	254	PFOS	5.769	7363242	271.1	
3/10/01 13:58	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0116.D	01003-07-03		THPFOS	5.546	1191068	254	PFOS	5.763	215488	3.9	below LOQ
3/10/01 14:09	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0117.D	01003-07-10		THPFOS	5.544	1162130	254	PFOS	5.761	7166019	270.7	108%
3/10/01 16:34	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0130.D	01003-07-03		THPFOS	5.54	1174278	254	PFOS	5.757	205428	3.6	below LOQ
3/10/01 16:46	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0131.D	01003-07-10		THPFOS	5.53	1176312	254	PFOS	5.74	7213554	269.0	107%
3/10/01 18:38	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0141.D	01003-07-03		THPFOS	5.537	1186818	254	PFOS	5.747	213374	3.8	
3/10/01 18:49	D:\chem\Rush.i\R010309.b	CCALIB_1	RUSH0142.D	01003-07-10		THPFOS	5.543	1178574	254	PFOS	5.753	7252833	270.1	
3/10/01 19:22	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0145.D	01003-07-01		THPFOS	5.547	1190379	254	PFOS	5.687	417527	10.2	
3/10/01 19:33	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0146.D	01003-07-02	2.5 ng/mL PFOS	THPFOS	5.551	1197508	254	PFOS	5.761	375240	8.1	
3/10/01 19:45	D:\chem\Rush.i\R010309.b	CALIB_11	RUSH0147.D	01003-07-03	5.0 ng/mL PFOS	THPFOS	5.53	1190786	254	PFOS	5.747	209130	3.7	X
3/10/01 19:56	D:\chem\Rush.i\R010309.b	CALIB_12	RUSH0148.D	01003-07-04	10 ng/mL PFOS	THPFOS	5.54	1193614	254	PFOS	5.757	379300	9.0	90%
3/10/01 20:07	D:\chem\Rush.i\R010309.b	CALIB_13	RUSH0149.D	01003-07-05	25 ng/ML PFOS	THPFOS	5.53	1189879	254	PFOS	5.747	918545	26.4	105%
3/10/01 20:18	D:\chem\Rush.i\R010309.b	CALIB_14	RUSH0150.D	01003-07-06	40 ng/mL PFOS	THPFOS	5.543	1188319	254	PFOS	5.76	1439357	43.6	109%
3/10/01 20:29	D:\chem\Rush.i\R010309.b	CALIB_15	RUSH0151.D	01003-07-07	50 ng/mL PFOS	THPFOS	5.537	1207047	254	PFOS	5.755	1778172	54.1	108%
3/10/01 20:40	D:\chem\Rush.i\R010309.b	CALIB_16	RUSH0152.D	01003-07-08	75.1 ng/mL PFOS	THPFOS	5.543	1206309	254	PFOS	5.753	2591174	82.0	109%
3/10/01 20:52	D:\chem\Rush.i\R010309.b	CALIB_17	RUSH0153.D	01003-07-09	100.2 ng/mL PFOS	THPFOS	5.547	1201824	254	PFOS	5.757	3298534	107.5	107%
3/10/01 21:03	D:\chem\Rush.i\R010309.b	CALIB_18	RUSH0154.D	01003-07-10	250.5 ng/mL PFOS	THPFOS	5.55	1192316	254	PFOS	5.767	7225944	265.3	106%
3/10/01 21:14	D:\chem\Rush.i\R010309.b	CALIB_19	RUSH0155.D	01003-07-11	400.8 ng/mL PFOS	THPFOS	5.54	1277981	254	PFOS	5.75	11337407	419.8	105%
3/10/01 21:25	D:\chem\Rush.i\R010309.b	CALIB_20	RUSH0156.D	01003-07-12	501 ng/mL PFOS	THPFOS	5.543	1207619	254	PFOS	5.753	12852853	527.1	105%

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3/9/01 23:03	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0036.D	1311-4058-S4	Soil1	THPFOS	5.546	1463951	254	PFOS	5.756	488283	9.6
3/9/01 23:14	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0037.D	1311-4059-S4	Soil1	THPFOS	5.545	1400698	254	PFOS	5.762	469387	9.6
3/9/01 23:25	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0038.D	1311-4064-S4	Soil2	THPFOS	5.547	1086434	254	PFOS	0	0	0.0
3/9/01 23:36	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0039.D	1311-4065-S4	Soil2	THPFOS	5.55	1289185	254	PFOS	0	0	0.0
3/9/01 23:47	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0040.D	1311-4066-S4	Soil2	THPFOS	5.556	1063982	254	PFOS	0	0	0.0
3/9/01 23:58	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0041.D	1311-4088-S4	Soil2	THPFOS	5.55	1351089	254	PFOS	5.768	2735601	76.8
3/10/01 0:10	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0042.D	1311-4089-S4	Soil2	THPFOS	0	0	0	PFOS	5.706	12191	0.0
3/10/01 0:21	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0043.D	1311-4090-S4	Soil2	THPFOS	5.544	1366635	254	PFOS	5.761	863841	21.0
3/10/01 0:32	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0044.D	1311-4094-S4	Soil3	THPFOS	5.549	1099645	254	PFOS	0	0	0.0
3/10/01 0:43	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0045.D	1311-4095-S4	Soil3	THPFOS	5.537	1234304	254	PFOS	5.684	2999325	94.0
3/10/01 1:39	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0050.D	1311-4096-S4	Soil3	THPFOS	5.557	62815	254	PFOS	5.704	11924	4.2
3/10/01 1:50	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0051.D	1311-4118-S4	Soil3	THPFOS	5.554	1038219	254	PFOS	5.764	420566	12.3
3/10/01 2:01	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0052.D	1311-4119-S4	Soil3	THPFOS	5.551	1172073	254	PFOS	5.768	644551	17.8
3/10/01 2:13	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0053.D	1311-4120-S4	Soil3	THPFOS	5.547	1188995	254	PFOS	5.757	595758	15.9
3/10/01 2:24	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0054.D	1311-4004-S5	Cntrl	THPFOS	5.551	1269801	254	PFOS	0	0	0.0
3/10/01 2:35	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0055.D	1311-4005-S5	Cntrl	THPFOS	5.543	1239213	254	PFOS	0	0	0.0
3/10/01 2:46	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0056.D	1311-4006-S5	Cntrl	THPFOS	5.541	1295229	254	PFOS	0	0	0.0
3/10/01 2:57	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0057.D	1311-4028-S5	Cntrl	THPFOS	5.548	1187969	254	PFOS	5.758	419771	10.3
3/10/01 3:08	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0058.D	1311-4030-S5	Cntrl	THPFOS	5.55	1957411	254	PFOS	5.767	476453	6.2
3/10/01 3:20	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0059.D	1311-4034-S5	Soil1	THPFOS	5.547	1453881	254	PFOS	0	0	0.0
3/10/01 4:16	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0064.D	1311-4035-S5	Soil1	THPFOS	5.539	1153414	254	PFOS	0	0	0.0
3/10/01 4:27	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0065.D	1311-4036-S5	Soil1	THPFOS	5.537	1099339	254	PFOS	0	0	0.0
3/10/01 4:38	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0066.D	1311-4058-S5	Soil1	THPFOS	5.544	1282394	254	PFOS	5.754	1014587	27.1
3/10/01 4:49	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0067.D	1311-4059-S5	Soil1	THPFOS	5.536	1246108	254	PFOS	5.753	985016	27.1
3/10/01 5:00	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0068.D	1311-4060-S5	Soil1	THPFOS	5.535	1223354	254	PFOS	5.753	1148377	32.9
3/10/01 5:11	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0069.D	1311-4064-S5	Soil2	THPFOS	5.54	1264548	254	PFOS	0	0	0.0
3/10/01 5:23	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0070.D	1311-4065-S5	Soil2	THPFOS	5.544	1228663	254	PFOS	0	0	0.0
3/10/01 5:34	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0071.D	1311-4066-S5	Soil2	THPFOS	5.544	1263001	254	PFOS	0	0	0.0
3/10/01 5:45	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0072.D	1311-4088-S5	Soil2	THPFOS	5.552	1235655	254	PFOS	5.769	1393130	40.3
3/10/01 5:56	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0073.D	1311-4089-S5	Soil2	THPFOS	5.542	1193060	254	PFOS	5.759	1451794	43.8
3/10/01 6:52	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0078.D	1311-4090-S5	Soil2	THPFOS	5.547	1318378	254	PFOS	5.764	1656632	45.4
3/10/01 7:03	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0079.D	1311-4094-S5	Soil3	THPFOS	5.55	1180237	254	PFOS	0	0	0.0
3/10/01 7:15	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0080.D	1311-4095-S5	Soil3	THPFOS	5.551	1226490	254	PFOS	0	0	0.0
3/10/01 7:26	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0081.D	1311-4096-S5	Soil3	THPFOS	5.542	1308839	254	PFOS	0	0	0.0
3/10/01 7:37	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0082.D	1311-4118-S5	Soil3	THPFOS	5.536	1290456	254	PFOS	5.753	747647	18.9
3/10/01 7:48	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0083.D	1311-4119-S5	Soil3	THPFOS	5.537	1336550	254	PFOS	5.754	955425	24.1
3/10/01 7:59	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0084.D	1311-4120-S5	Soil3	THPFOS	5.539	1245142	254	PFOS	5.757	958092	26.3
3/10/01 8:11	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0085.D	1311-4004-S6	Cntrl	THPFOS	5.539	1304860	254	PFOS	0	0	0.0
3/10/01 8:22	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0086.D	1311-4005-S6	Cntrl	THPFOS	5.539	1261162	254	PFOS	0	0	0.0
3/10/01 8:33	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0087.D	1311-4006-S6	Cntrl	THPFOS	5.533	1247359	254	PFOS	0	0	0.0
3/10/01 9:29	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0092.D	1311-4006MS-S6	Cntrl	THPFOS	5.57	1071760	254	PFOS	5.78	5486963	217.8
3/10/01 9:40	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0093.D	1311-4028-S6	Cntrl	THPFOS	5.565	1300949	254	PFOS	5.775	444872	9.9
3/10/01 9:51	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0094.D	1311-4030-S6	Cntrl	THPFOS	5.569	1303672	254	PFOS	5.786	428399	9.4
3/10/01 10:03	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0095.D	1311-4030MS-S6	Cntrl	THPFOS	5.57	1032466	254	PFOS	5.78	5773407	241.4

3/10/01 10:14	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0096.D	1311-4034-S6	Soil1	THPFOS	5.565	1333744	254	PFOS	0	0	0.0
3/10/01 10:25	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0097.D	1311-4035-S6	Soil1	THPFOS	5.572	1338340	254	PFOS	0	0	0.0
3/10/01 10:36	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0098.D	1311-4036-S6	Soil1	THPFOS	5.572	1245746	254	PFOS	0	0	0.0
3/10/01 10:47	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0099.D	1311-4036MS-S6	Soil1	THPFOS	5.565	1068189	254	PFOS	5.775	5657330	226.5
3/10/01 10:59	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0100.D	1311-4058-S6	Soil1	THPFOS	5.565	1280942	254	PFOS	5.775	1095297	29.6
3/10/01 11:10	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0101.D	1311-4059-S6	Soil1	THPFOS	5.559	1242425	254	PFOS	5.776	1011012	28.0
3/10/01 12:06	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0106.D	1311-4060-S6	Soil1	THPFOS	5.556	1262511	254	PFOS	5.766	1003621	27.2
3/10/01 12:17	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0107.D	1311-4060MS-S6	Soil1	THPFOS	5.565	1213422	254	PFOS	5.775	5974975	208.2
3/10/01 12:28	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0108.D	1311-4061-S6	Soil2	THPFOS	5.56	1253496	254	PFOS	0	0	0.0
3/10/01 12:39	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0109.D	1311-4065-S6	Soil2	THPFOS	5.557	1250558	254	PFOS	0	0	0.0
3/10/01 12:51	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0110.D	1311-4066-S6	Soil2	THPFOS	5.559	1239303	254	PFOS	0	0	0.0
3/10/01 13:02	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0111.D	1311-4066MS-S6	Soil2	THPFOS	5.551	1034913	254	PFOS	5.768	5360487	220.8
3/10/01 13:13	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0112.D	1311-4088-S6	Soil2	THPFOS	5.565	1258690	254	PFOS	5.775	1362179	38.5
3/10/01 13:24	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0113.D	1311-4089-S6	Soil2	THPFOS	5.553	1250794	254	PFOS	5.77	1415860	40.5
3/10/01 13:35	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0114.D	1311-4090-S6	Soil2	THPFOS	5.557	1285551	254	PFOS	5.775	1334234	36.7
3/10/01 13:46	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0115.D	1311-4090MS-S6	Soil2	THPFOS	5.543	1080374	254	PFOS	5.76	6447671	260.5
3/10/01 14:43	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0120.D	1311-4094-S6	Soil3	THPFOS	5.561	1242888	254	PFOS	0	0	0.0
3/10/01 14:54	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0121.D	1311-4095-S6	Soil3	THPFOS	5.551	1231504	254	PFOS	0	0	0.0
3/10/01 15:05	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0122.D	1311-4096-S6	Soil3	THPFOS	5.543	1217872	254	PFOS	0	0	0.0
3/10/01 15:16	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0123.D	1311-4096MS-S6	Soil3	THPFOS	5.538	1050039	254	PFOS	5.755	5229681	211.0
3/10/01 15:27	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0124.D	1311-4118-S6	Soil3	THPFOS	5.543	1289869	254	PFOS	5.76	1101877	29.6
3/10/01 15:39	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0125.D	1311-4119-S6	Soil3	THPFOS	5.544	1232248	254	PFOS	5.754	1018381	28.5
3/10/01 15:50	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0126.D	1311-4120-S6	Soil3	THPFOS	5.545	1307515	254	PFOS	5.755	993087	25.9
3/10/01 16:01	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0127.D	1311-4120MS-S6	Soil3	THPFOS	5.537	1053782	254	PFOS	5.747	6331963	262.6
3/10/01 16:12	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0128.D	1311-4004-S7	Cntrl	THPFOS	5.53	1230396	254	PFOS	0	0	0.0
3/10/01 16:23	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0129.D	1311-4005-S7	Cntrl	THPFOS	5.544	1250384	254	PFOS	0	0	0.0
3/10/01 17:19	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0134.D	1311-4006-S7	Cntrl	THPFOS	5.543	1221946	254	PFOS	0	0	0.0
3/10/01 17:30	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0135.D	1311-4028-S7	Cntrl	THPFOS	5.538	1266595	254	PFOS	5.748	432393	9.9
3/10/01 17:42	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0136.D	1311-4030-S7	Cntrl	THPFOS	5.537	1192244	254	PFOS	5.748	423701	10.4
3/10/01 17:53	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0137.D	1311-4034-S7	Soil1	THPFOS	5.535	1218042	254	PFOS	0	0	0.0
3/10/01 18:04	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0138.D	1311-4035-S7	Soil1	THPFOS	5.53	1194839	254	PFOS	5.74	375306	8.9
3/10/01 18:15	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0139.D	1311-4036-S7	Soil1	THPFOS	5.539	1252105	254	PFOS	0	0	0.0
3/10/01 18:26	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0140.D	1311-4058-S7	Soil1	THPFOS	5.532	1194656	254	PFOS	5.742	962584	27.7

3/9/01 20:04	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0020.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.802	49447	0.0
3/9/01 20:15	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0021.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.809	24769	0.0
3/9/01 22:40	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0034.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.799	34422	0.0
3/9/01 22:51	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0035.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.792	20717	0.0
3/10/01 1:17	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0048.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.785	21865	0.0
3/10/01 1:28	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0049.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.75	15324	0.0
3/10/01 3:53	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0062.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.783	18986	0.0
3/10/01 4:04	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0063.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.685	15124	0.0
3/10/01 6:30	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0076.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.697	18689	0.0
3/10/01 6:41	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0077.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.707	15833	0.0
3/10/01 9:07	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0090.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.788	23180	0.0
3/10/01 9:18	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0091.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.718	16806	0.0
3/10/01 11:43	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0104.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.782	23713	0.0
3/10/01 11:54	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0105.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.712	18643	0.0
3/10/01 14:20	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0118.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.701	22854	0.0
3/10/01 14:31	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0119.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.698	20038	0.0
3/10/01 16:57	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0132.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.682	25164	0.0
3/10/01 17:08	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0133.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.69	20930	0.0
3/10/01 19:00	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0143.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.696	24815	0.0
3/10/01 19:11	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0144.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.698	22446	0.0
3/10/01 21:36	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0157.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.783	38306	0.0
3/10/01 21:48	D:\chem\Rush.i\R010309.b	SAMPLE	RUSH0158.D	TN-A 4802 MeOH	THPFOS	0	0	0	PFOS	5.705	27663	0.0

3M Environmental Laboratory

KT 03-20-01 p.1663

Sample Batch H010313.b, analyzed on Hillary 03-13-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 5-501 ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: H010313d.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount	
3/13/01 12:56	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0016.D	0 ng/mL PFOS in MeOH		THPFOS	4.99	986728	254	PFOS	0.00	0	0.0	
3/13/01 13:07	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0017.D	2.5 ng/mL PFOS in MeOH		THPFOS	4.99	1004472	254	PFOS	5.21	81205	2.9	%Dev
3/13/01 13:18	D:\chem\Hillary.i\H010313.b	CALIB_1	HILL0018.D	5 ng/mL PFOS in MeOH		THPFOS	4.99	1053980	254	PFOS	5.21	141737	5.1	102.6%
3/13/01 13:30	D:\chem\Hillary.i\H010313.b	CALIB_2	HILL0019.D	10 ng/mL PFOS in MeOH		THPFOS	4.99	999429	254	PFOS	5.21	225923	8.9	89.1%
3/13/01 13:41	D:\chem\Hillary.i\H010313.b	CALIB_3	HILL0020.D	25 ng/mL PFOS in MeOH		THPFOS	4.99	1025198	254	PFOS	5.21	598942	23.8	95.3%
3/13/01 13:52	D:\chem\Hillary.i\H010313.b	CALIB_4	HILL0021.D	40 ng/mL PFOS in MeOH		THPFOS	4.99	1022879	254	PFOS	5.21	948444	38.2	95.6%
3/13/01 14:04	D:\chem\Hillary.i\H010313.b	CALIB_5	HILL0022.D	50.1 ng/mL PFOS in MeOH		THPFOS	4.99	1010348	254	PFOS	5.21	1168397	47.9	95.7%
3/13/01 14:15	D:\chem\Hillary.i\H010313.b	CALIB_6	HILL0023.D	75.1 ng/mL PFOS in MeOH		THPFOS	4.99	998419	254	PFOS	5.21	1754434	73.7	98.1%
3/13/01 14:26	D:\chem\Hillary.i\H010313.b	CALIB_7	HILL0024.D	100.2 ng/mL PFOS in MeOH		THPFOS	4.99	1010291	254	PFOS	5.21	2316691	97.1	96.9%
3/13/01 14:38	D:\chem\Hillary.i\H010313.b	CALIB_8	HILL0025.D	250.5 ng/mL PFOS in MeOH		THPFOS	4.99	1043376	254	PFOS	5.21	5628366	239.1	95.5%
3/13/01 14:49	D:\chem\Hillary.i\H010313.b	CALIB_9	HILL0026.D	400.8 ng/mL PFOS in MeOH		THPFOS	4.98	975369	254	PFOS	5.20	8318503	394.6	98.5%
3/13/01 15:01	D:\chem\Hillary.i\H010313.b	CALIB_10	HILL0027.D	501 ng/mL PFOS in MeOH		THPFOS	4.98	1040160	254	PFOS	5.20	10360908	469.7	93.8%
3/13/01 17:40	D:\chem\Hillary.i\H010313.b	CCALIB_1	HILL0041.D	5 ng/mL PFOS in MeOH		THPFOS	4.98	973042	254	PFOS	5.20	154385	6.1	122.5%
3/13/01 17:51	D:\chem\Hillary.i\H010313.b	CCALIB_1	HILL0042.D	250.5 ng/mL PFOS in MeOH		THPFOS	4.98	965534	254	PFOS	5.21	5687791	263.0	105.0%
3/14/01 9:37	D:\chem\Hillary.i\H010313.b	CCALIB_1	HILL0055.D	5 ng/mL PFOS in MeOH		THPFOS	5.01	1293233	254	PFOS	5.24	180636	5.3	106.9%
3/14/01 9:48	D:\chem\Hillary.i\H010313.b	CCALIB_1	HILL0056.D	250.5 ng/mL PFOS in MeOH		THPFOS	4.99	1084961	254	PFOS	5.21	6109094	250.4	100.0%
3/14/01 12:16	D:\chem\Hillary.i\H010313.b	CCALIB_1	HILL0069.D	5 ng/mL PFOS in MeOH		THPFOS	4.98	953043	254	PFOS	5.20	155058	6.3	125.9%
3/14/01 12:28	D:\chem\Hillary.i\H010313.b	CCALIB_1	HILL0070.D	250.5 ng/mL PFOS in MeOH		THPFOS	4.98	928765	254	PFOS	5.20	5707416	275.3	109.9%
3/14/01 14:44	D:\chem\Hillary.i\H010313.b	CCALIB_1	HILL0082.D	5 ng/mL PFOS in MeOH		THPFOS	4.98	916687	254	PFOS	5.22	273709	11.9	238.4%
3/14/01 14:56	D:\chem\Hillary.i\H010313.b	CCALIB_1	HILL0083.D	250.5 ng/mL PFOS in MeOH		THPFOS	4.97	906152	254	PFOS	5.20	5662486	280.3	111.9%
3/14/01 15:30	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0086.D	0 ng/mL PFOS in MeOH		THPFOS	4.97	884570	254	PFOS	0.00	0	0.0	
3/14/01 15:41	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0087.D	2.5 ng/mL PFOS in MeOH		THPFOS	4.97	895265	254	PFOS	5.20	83400	3.4	
3/14/01 15:53	D:\chem\Hillary.i\H010313.b	CALIB_11	HILL0088.D	5 ng/mL PFOS in MeOH		THPFOS	4.98	962083	254	PFOS	5.20	153877	6.2	123.6%
3/14/01 16:04	D:\chem\Hillary.i\H010313.b	CALIB_12	HILL0089.D	10 ng/mL PFOS in MeOH		THPFOS	4.98	913122	254	PFOS	5.20	221204	9.6	95.8%
3/14/01 16:15	D:\chem\Hillary.i\H010313.b	CALIB_13	HILL0090.D	25 ng/mL PFOS in MeOH		THPFOS	4.98	922984	254	PFOS	5.21	589951	26.1	104.5%
3/14/01 16:27	D:\chem\Hillary.i\H010313.b	CALIB_14	HILL0091.D	40 ng/mL PFOS in MeOH		THPFOS	4.98	936409	254	PFOS	5.20	936043	41.3	103.2%
3/14/01 16:38	D:\chem\Hillary.i\H010313.b	CALIB_15	HILL0092.D	50.1 ng/mL PFOS in MeOH		THPFOS	4.98	925210	254	PFOS	5.20	1160241	52.1	104.0%
3/14/01 16:49	D:\chem\Hillary.i\H010313.b	CALIB_16	HILL0093.D	75.1 ng/mL PFOS in MeOH		THPFOS	4.98	908053	254	PFOS	5.21	1701449	78.8	104.9%
3/14/01 17:01	D:\chem\Hillary.i\H010313.b	CALIB_17	HILL0094.D	100.2 ng/mL PFOS in MeOH		THPFOS	4.98	925726	254	PFOS	5.21	2264695	103.8	103.6%
3/14/01 17:12	D:\chem\Hillary.i\H010313.b	CALIB_18	HILL0095.D	250.5 ng/mL PFOS in MeOH		THPFOS	4.98	967131	254	PFOS	5.21	5613138	258.8	103.3%
3/14/01 17:24	D:\chem\Hillary.i\H010313.b	CALIB_19	HILL0096.D	400.8 ng/mL PFOS in MeOH		THPFOS	4.98	893733	254	PFOS	5.20	8216860	429.2	107.1%
3/14/01 17:35	D:\chem\Hillary.i\H010313.b	CALIB_20	HILL0097.D	501 ng/mL PFOS in MeOH		THPFOS	4.98	968040	254	PFOS	5.20	10392100	511.3	102.1%

QC IS range (+/- 30% average):
1271335 +30%:
684565 -30%:

Average: 977950
Std Dev: 77747.7
%RSD: 8.0%

Sample Batch H010313.b, analyzed on Hillary 03-13-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Slg/Sed.
Standard curve range used for calibration of samples: 5-501 ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: H010313d.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	ISTD perfomance comments	Amount	Compound Name	RT	Area	Amount	Comments
3/13/01 15:46	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0031.D	E00-1311-5062-S2	Soil2	THPFOS	4.99	909345		254	PFOS	5.22	1448358	66.6	
3/13/01 15:57	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0032.D	E00-1311-5063-S2	Soil2	THPFOS	4.98	895204		254	PFOS	5.20	1150879	53.4	
3/13/01 16:09	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0033.D	E00-1311-5063MS-S2	Soil2	THPFOS	4.99	758109		254	PFOS	5.21	4304297	252.7	
3/13/01 16:20	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0034.D	E00-1311-5064-S2	Soil2	THPFOS	4.99	865275		254	PFOS	5.20	2329091	114.7	
3/13/01 16:31	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0035.D	E00-1311-5065-S2	Soil2	THPFOS	4.99	860270		254	PFOS	5.20	2422896	120.2	
3/13/01 16:43	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0036.D	E00-1311-5066-S2	Soil2	THPFOS	4.99	848747		254	PFOS	5.21	3659129	188.2	
3/13/01 16:54	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0037.D	E00-1311-5066MS-S2	Soil2	THPFOS	4.99	733500		254	PFOS	5.21	6555441	415.8	
3/13/01 17:06	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0038.D	E00-1311-5067-S2	Soil2	THPFOS	4.99	826114		254	PFOS	5.21	7748434	438.9	
3/13/01 17:17	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0039.D	E00-1311-5068-S2	Soil2	THPFOS	4.99	835017		254	PFOS	5.21	7494602	417.8	
3/13/01 17:28	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0040.D	E00-1311-5069-S2	Soil2	THPFOS	4.99	833819		254	PFOS	5.20	6105464	333.4	
~~3/13/01 18:25~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0045.D~~	~~E00-1311-5069MS-S2~~	~~Soil2~~	~~THPFOS~~	~~4.98~~	~~724384~~	-	~~254~~	~~PFOS~~	~~5.20~~	~~8528878~~	~~568.3~~	~~>501 ng/mL~~
~~3/13/01 18:37~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0046.D~~	~~E00-1311-5070-S2~~	~~Soil2~~	~~THPFOS~~	~~4.98~~	~~825823~~	-	~~254~~	~~PFOS~~	~~5.20~~	~~27175761~~	~~2014.5~~	~~>501 ng/mL~~
~~3/13/01 18:48~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0047.D~~	~~E00-1311-5071-S2~~	~~Soil2~~	~~THPFOS~~	~~4.98~~	~~834572~~	-	~~254~~	~~PFOS~~	~~5.20~~	~~21535844~~	~~1467.5~~	~~>501 ng/mL~~
~~3/13/01 18:59~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0048.D~~	~~E00-1311-5072-S2~~	~~Soil2~~	~~THPFOS~~	~~4.99~~	~~799403~~	-	~~254~~	~~PFOS~~	~~5.21~~	~~22722031~~	~~1662.0~~	~~>501 ng/mL~~
~~3/13/01 19:11~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0049.D~~	~~E00-1311-5072MS-S2~~	~~Soil2~~	~~THPFOS~~	~~4.98~~	~~694091~~	-	~~254~~	~~PFOS~~	~~5.20~~	~~24729500~~	~~2240.4~~	~~>501 ng/mL~~
3/13/01 19:22	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0050.D	E00-1311-5091-S2	Soil3	THPFOS	4.98	824166		254	PFOS	5.20	2640517	137.6	
3/13/01 19:33	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0051.D	E00-1311-5092-S2	Soil3	THPFOS	4.99	786360		254	PFOS	5.21	945552	49.9	
3/13/01 19:45	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0052.D	E00-1311-5093-S2	Soil3	THPFOS	4.99	815722		254	PFOS	5.21	670677	33.8	
~~3/13/01 19:56~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0053.D~~	~~E00-1311-5093MS-S2~~	~~Soil3~~	~~THPFOS~~	~~4.99~~	~~681994~~	~~ISTD<70%~~	~~254~~	~~PFOS~~	~~5.21~~	~~3625335~~	~~235.4~~	-
3/13/01 20:08	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0054.D	E00-1311-5094-S2	Soil3	THPFOS	4.99	814408		254	PFOS	5.21	822587	41.7	
3/14/01 10:23	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0059.D	E00-1311-5095-S2	Soil3	THPFOS	4.99	878131		254	PFOS	5.22	750560	35.2	
3/14/01 10:34	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0060.D	E00-1311-5096-S2	Soil3	THPFOS	4.98	874013		254	PFOS	5.21	736105	34.6	
3/14/01 10:45	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0061.D	E00-1311-5096MS-S2	Soil3	THPFOS	4.98	723196		254	PFOS	5.21	4068910	250.2	
3/14/01 10:57	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0062.D	E00-1311-5097-S2	Soil3	THPFOS	4.98	852831		254	PFOS	5.20	2533547	127.1	
3/14/01 11:08	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0063.D	E00-1311-5098-S2	Soil3	THPFOS	4.98	841962		254	PFOS	5.20	2481828	126.1	
3/14/01 11:19	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0064.D	E00-1311-5099-S2	Soil3	THPFOS	4.99	822196		254	PFOS	5.21	2597099	135.5	
3/14/01 11:31	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0065.D	E00-1311-5099MS-S2	Soil3	THPFOS	4.99	709765		254	PFOS	5.20	5483252	353.6	
3/14/01 11:42	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0066.D	E00-1311-5100-S2	Soil3	THPFOS	4.98	827302		254	PFOS	5.20	6079641	334.7	
3/14/01 11:54	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0067.D	E00-1311-5101-S2	Soil3	THPFOS	4.99	824224		254	PFOS	5.20	5936738	327.4	
3/14/01 12:05	D:\chem\Hillary.I\H010313.b	SAMPLE	HILL0068.D	E00-1311-5102-S2	Soil3	THPFOS	4.98	830977		254	PFOS	5.20	6228226	342.0	
~~3/14/01 13:02~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0073.D~~	~~E00-1311-5102MS-S2~~	~~Soil3~~	~~THPFOS~~	~~4.98~~	~~716013~~	-	~~254~~	~~PFOS~~	~~5.21~~	~~8966922~~	~~610.3~~	~~>501 ng/mL~~
~~3/14/01 13:13~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0074.D~~	~~E00-1311-5103-S2~~	~~Soil3~~	~~THPFOS~~	~~4.98~~	~~825019~~	-	~~254~~	~~PFOS~~	~~5.20~~	~~10743365~~	~~638.6~~	~~>501 ng/mL~~
~~3/14/01 13:25~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0075.D~~	~~E00-1311-5104-S2~~	~~Soil3~~	~~THPFOS~~	~~4.98~~	~~841409~~	-	~~254~~	~~PFOS~~	~~5.21~~	~~11300416~~	~~662.0~~	~~>501 ng/mL~~
~~3/14/01 13:36~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0076.D~~	~~E00-1311-5105-S2~~	~~Soil3~~	~~THPFOS~~	~~4.98~~	~~834736~~	-	~~254~~	~~PFOS~~	~~5.20~~	~~11874176~~	~~708.1~~	~~>501 ng/mL~~
~~3/14/01 13:47~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0077.D~~	~~E00-1311-5105MS-S2~~	~~Soil3~~	~~THPFOS~~	~~4.98~~	~~696366~~	-	~~254~~	~~PFOS~~	~~5.20~~	~~15190681~~	~~1187.3~~	~~>501 ng/mL~~
~~3/14/01 13:59~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0078.D~~	~~E00-1311-5106-S2~~	~~Soil3~~	~~THPFOS~~	~~4.98~~	~~795332~~	-	~~254~~	~~PFOS~~	~~5.20~~	~~35096721~~	~~3004.4~~	~~>501 ng/mL~~
~~3/14/01 14:10~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0079.D~~	~~E00-1311-5107-S2~~	~~Soil3~~	~~THPFOS~~	~~4.98~~	~~779937~~	-	~~254~~	~~PFOS~~	~~5.19~~	~~34505373~~	~~3015.1~~	~~>501 ng/mL~~
~~3/14/01 14:22~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0080.D~~	~~E00-1311-5108-S2~~	~~Soil3~~	~~THPFOS~~	~~4.98~~	~~785097~~	-	~~254~~	~~PFOS~~	~~5.19~~	~~37665186~~	~~3379.2~~	~~>501 ng/mL~~
~~3/14/01 14:33~~	~~D:\chem\Hillary.I\H010313.b~~	~~SAMPLE~~	~~HILL0081.D~~	~~E00-1311-5108MS-S2~~	~~Soil3~~	~~THPFOS~~	~~4.97~~	~~679775~~	~~ISTD<70%~~	~~254~~	~~PFOS~~	~~5.19~~	~~36913293~~	~~4035.0~~	~~>501 ng/mL~~

Average: 802682.15
Std Dev: 61470.3
%RSD: 7.7%

3M Environmental Laboratory

Sample Batch H010313.b, analyzed on Hillary 03-13-01. PFOS Adsorb/Desorb samples. Matrix: Soil/Sig/Sed.
Standard curve range used for calibration of samples: 5-501 ng/mL (2.5 ng/mL std not included due to the higher sample concentration range).
Batch method: H010313d.m

Inj Date	Batch	SampType	File	Sample Name	Misc Info	Compound Name	RT	Area	Amount	Compound Name	RT	Area	Amount
3/13/01 12:33	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0014.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.25	23051	0.0
3/13/01 12:44	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0015.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	0.00	0	0.0
3/13/01 15:12	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0028.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.25	18799	0.0
3/13/01 15:23	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0029.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	0.00	0	0.0
3/13/01 15:35	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0030.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	0.00	0	0.0
3/13/01 18:02	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0043.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.25	8263	0.0
3/13/01 18:14	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0044.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	0.00	0	0.0
3/14/01 10:00	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0057.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	0.00	0	0.0
3/14/01 10:11	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0058.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	0.00	0	0.0
3/14/01 12:39	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0071.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.25	10516	0.0
3/14/01 12:51	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0072.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	0.00	0	0.0
3/14/01 15:07	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0084.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.25	23284	0.0
3/14/01 15:19	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0085.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.25	12631	0.0
3/14/01 17:46	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0098.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	5.25	16777	0.0
3/14/01 17:58	D:\chem\Hillary.i\H010313.b	SAMPLE	HILL0099.D	TN-A 4802 MeOH		THPFOS	0.00	0	0	PFOS	0.00	0	0.0

Appendix I: Traceability Information

This appendix includes traceability information on the test substances and standards used in this study.

Test Control and Reference Substance Log

Substance trade name or reference #	**PFOS**	TCR Substance #	**TCR-00017-046**
Substance/chemical name:	**Purified PFOS, Perfluorooctanesulfonate (Primary Std)**		
Lot/batch #:	**unknown**	Received from:	**George Moore**
3M #			
Expiration date:	**08/31/2001**	Amount received (wt. or vol):	
Initials:		Date:	**05/31/2000**
Number/size of containers:	**1/ 20 mL Nalgene bottle**	Shipper:	**unknown**
Condition:	**good/ white powder**	MSDS (y/n)	● Y ○ N
Retain	**0.3480 g**	Date of Retain	**05/31/2000**

Purity:	**97.9% LAC 09/19/00**
Records received:	**N/A**
Location of synthesis, fabrication, or derivation records:	**Recrystallized by George Moore, Bldg 236**
Std Location/Storage:	**F19, Frozen**
Molecular Formula:	**C8F17SO3-K+**
Comments	**Standard has been moved to Freezer 19 in room 347 KJD 6/7/00** **Empty container weight approximatelly 11.86g. LCG 8/16/00** **tandard weighed on 9/28/00 was stored frozen at -20C+/- 10C until shippment on 10/3/00 LAC 10/3/00** **Standard was stored at room temperature prior to 6/7/00 LAC 12/21/00**
Attachment(s)	tcr99030-46msds.pdf COA(PFOS Primary Std).pdf

Centre Analytical Laboratories, Inc.
3048 Research Drive State College, PA 16801
Phone: (814) 231-8032 Fax: (814) 231-1253 or (814) 231-1580

INTERIM CERTIFICATE OF ANALYSIS

Revision 1(9/7/00)

Centre Analytical Laboratories COA Reference #: 023-021
3M Product: PFOS, Primary Standard
Test Control Reference #: TCR00017-46
Purity: 97.9%

Test Name	Specifications	Result
Purity[1]		97.9%
Appearance	White Crystalline Powder	Conforms
Identification NMR		Positive
Metals (ICP/MS) 1. Calcium 2. Magnesium 3. Sodium 4. Potassium[2] 5. Nickel 6. Iron 7. Manganese		 1. 0.006 wt./wt.% 2. 0.002 wt./wt.% 3. 1.216 wt./wt.% 4. 6.685 wt./wt.% 5. <0.001 wt./wt.% 6. 0.002 wt./wt.% 7. <0.001 wt./wt.%
Total % Impurity (NMR)		0.13 wt./wt.%
Total % Impurity (LC/MS)		0.14 wt./wt.%
Total % Impurity (GC/MS)		None Detected
Related Compounds – POAA		<0.01 wt./wt.%
Residual Solvents (TGA)		None Detected
Purity by DSC		97.5 Mol. %.
Inorganic Anions (IC) 1. Chloride 2. Fluoride 3. Bromide 4. Nitrate 5. Nitrite 6. Phosphate 7. Sulfate[3]		 1. <0.015 wt./wt.% 2. 0.60 wt./wt.% 3. <0.040 wt./wt.% 4. <0.009 wt./wt.% 5. <0.006 wt./wt.% 6. <0.007 wt./wt.% 7. 7.88 wt./wt.%
Organic Acids [4] (IC) 1. TFA 2. PFPA 3. HFBA 4. NFPA		 1. <0.1 wt./wt.% 2. <0.1 wt./wt.% 3. <0.1 wt./wt.% 4. <0.25 wt./wt.%
Elemental Analysis[5]: 1. Carbon 2. Hydrogen 3. Nitrogen 4. Sulfur 5. Fluorine	 1. Theoretical Value = 17.8% 2. Theoretical Value = 0% 3. Theoretical Value = 0% 4. Theoretical Value = 5.95% 5. Theoretical Value = 60%	 1. 11.39 wt./wt.% 2. 0.456 wt./wt.% 3. 1.51 wt./wt.% 4. 7.80 wt./wt.% 5. 58.0 wt./wt.%

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INTERIM CERTIFICATE OF ANALYSIS

Centre Analytical Laboratories COA Reference #: 023-021

Date of Last Analysis: 08/31/00

Expiration Date: 08/31/01

Storage Conditions: Frozen $\leq$-10°C

Re-assessment Date: 08/31/01

[1]Purity = 100% - (sum of metal impurities, 1.226% +LC/MS impurities, 0.14%+Inorganic Fluoride, 0.60%+NMR Impurity, 0.13%).
Total impurity from all tests = 2.09%
Purity = 100% - 2.09% = 97.9%

[2]Potassium is expected in this salt form and is therefore not considered an impurity.

[3]Sulfur in the sample appears to be converted to SO_4 and hence detected using the inorganic anion method conditions. The anion result agrees well with the sulfur determination in the elemental analysis, lending confidence to this interpretation. Based on the results, the SO_4 is not considered an impurity.

[4]TFA	Trifluoroacetic acid
HFBA	Heptafluorobutyric acid
NFPA	Nonofluoropentanoic acid
PFPA	Pentafluoropropanoic acid

[5]Theoretical value calculations based on the empirical formula, $C_8F_{17}SO_3^-K^+$ (MW=538).

This work was conducted under EPA Good Laboratory Practice Standards (40 CFR 160).

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INTERIM CERTIFICATE OF ANALYSIS

Centre Analytical Laboratories COA Reference #: 023-021

LC/MS Purity Profile:

Impurity	wt./wt. %
C4	ND
C5	ND
C6	ND
C7	0.14
Total	**0.14**

Note: The C7 value was calculated using the average response factors from the C6 and C8 standard curves.

Prepared By: _____ 9/10/00
David S. Bell Date
Scientist, Centre Analytical Laboratories

Reviewed By: _____ 9/11/00
John Flaherty Date
Laboratory Manager, Centre Analytical Laboratories

USE LOG
PFOS Purified PFOS, Perfluorooctanesulfonate (Primary Std) TCR-00017-046

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
9.9099g	0.5069 g	9.4030 g	Adsorb/Desorb Study	914	LCG	10/17/2000

Test Control and Reference Substance Log

Substance trade name or reference #	**Barnes Loam**	TCR Substance #	TCR-[redacted] EC 00165-058 amc 5/25/01
Substance/chemical name:			
Lot/batch #:	**"Don Uglem" 00-2404**	Received from:	**Agvise**
3M #			
Expiration date:	**12/31/2015**	Amount received (wt. or vol):	**900 grams , Bulk**
Initials:	**LCG**	Date:	**10/23/2000**
Number/size of containers:		Shipper:	**Fed Express**
Condition:	**dried and sieved**	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	**NA**
Records received:	**Agvise Soil Characterization Report 00-2404**
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**Container stored ambient in TCR-CO2. LCG 12/26/00**
Molecular Formula:	
Comments	**TCR sticker added to bottle after original weight LCG 10/25/00**
Attachment(s)	Don Uglem loam-0-6.pdf

AGVISE LABORATORIES

Highway 15
P.O. Box 510
Northwood, ND 58267
(701) 587-6010
FAX (701) 587-6013
email: agvise@polarcomm.com
Homepage: agviselabs.com

AGVISE Soil Characterization Report

Submitting firm = 3M
Protocol or Study No = NA
Sample ID. = DON UGLEM-LOAM 0-6
Trial ID. = NA
Date Received = 10-23-00
Date Reported = 10-31-2000

AGVISE Lab No 00- 2404

Percent Sand	39
Percent Silt	50
Percent Clay	11
USDA Textural Class (hydrometer method)	Loam
Cation Exchange Capacity (meq/100 g)	23.9
Percent Organic Carbon	4.9
Percent Organic Matter	8.4
pH in 0.01 M CaCl2	7.4
Total Nitrogen (%)	0.358

Base Saturation Data

Cation	Percent	ppm
Calcium	52.2	2500
Magnesium	20.9	600
Sodium	0.7	38
Potassium	3.5	324
Hydrogen	22.7	54

These tests were completed in compliance of 40 CFR Part 160.

Julie M. Johnson
Julie M. Johnson
Analytical Investigator

10-31-00
Date

Agricultural Testing

AGVISE LABORATORIES

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P.O. Box 510
Northwood, ND 58267
(701) 587-6010
FAX (701) 587-6013
email: agvise@polarcomm.com
Homepage: agviselabs.com

The following personnel have been duly trained to perform Plant Analysis, Soil and Water Characterization methods under 40 CFR Part 160 Good Laboratory Practice Standards.

Technical Support Staff

Anderson, Linda M. - Technician III
Deutsch, Robert L. - President
Hart, Linda M. - Technician III
Hime, Sherry L. - Technician I
Johnson, Julie M. - Nutrient Laboratory Manager
McNeil, Vigo (Art) - Technician I
Moen, Lucinda S. - Technician III
Pollert, Garis - Nutrient Laboratory Analyst
Pollock, John - Technician I
Wall, Mary J. - Technician II
Wyant, Linda L. - Technician I

Office Support Staff

Berg, Eileen A. - Secretary III
Ducioame, Gail M. - Quality Control Specialist
Fuglestad, Teresa S. - Secretary II
Hagen, Shelly J. - Administrative Assistant

Quality Assurance

Thingelstad, Mary L. - Quality Assurance Manager

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AGVISE Laboratories, Inc.
Initial ES Date 10/28/00

05/00

Bulk Density - Disturbed bulk density is determined by weighing a known volume of dried and ground soil (NUT.02.10). Core or non-disturbed bulk density is determined by weighing a known volume of an intact, dried soil core (NUT.02.02).

Water Holding Capacity and Water Relations

Moisture % - Determined by gravimetric loss upon drying (NUT.02.36).

Saturated Hydraulic Conductivity - Determined by using the constant head method and measuring the rate of flow of water through a saturated soil column (NUT.02.34).

Water Infiltration Rate - Determined by using the constant head method and measuring the length of time from water application to production of a leachate from a soil column (NUT.02.35).

Water Holding Capacity - Determined by measuring the moisture remaining when saturated soil is placed under 1/3 or 0.10 bar pressure (NUT.02.08).

Water Holding Capacity - Determined by measuring the moisture remaining when saturated soil is placed under 15 bar pressure (NUT.02.13).

All of the above methods are detailed in the current analytical SOPs used by AGVISE Laboratories' Characterization testing laboratory.

NUT.05.01. Long Term Storage of Soil and Water Characterization Specimens: According to this SOP, soil characterization samples will be retained by AGVISE Laboratories for at least two years before disposal and water characterization samples will be retained for a period of 60 days before disposal.

ADM.05.01. Archivist Duties and Archiving Procedures: This SOP states that copies of soil and water characterization reports, original COC's and original raw data will be archived within 60 days after the signature by the analytical investigator. Hard copies generated by computer will be archived weekly, and supplemental data will be archived annually.

QAU.08.01. Quality Assurance Inspections of Facilities, Studies, and Processes for GLP Compliance: Method inspections will be performed on a regular basis at AGVISE Laboratories, Inc. For soil characterization, two methods will be inspected per month and one water characterization inspection will be conducted per month. An annual facility audit will be performed by AGVISE Laboratories, Inc. Quality Assurance Unit.

All of the above methods are detailed in the current analytical SOP's used in AGVISE Laboratories' characterization laboratory.

APPROVED BY
ANALYTICAL INVESTIGATOR: _____ 10/10/97
Robert L. Deutsch, Soil Scientist **Date**

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AGVISE Laboratories, Inc.
Initial: _____ Date 10-13-00

Collection Information

Site Identification Don Uglem Loam
Sample ID AGVISE Lab# 00-2404
Geographical Reference Latitude: 47°44' Longitude: -97°48'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) Native Prairie
Depth of Sampling 0-6"
Collected by Gasia Pollest

****

Site Identification K. Broeren Clay Loam
Sample ID AGVISE Lab# 00-2405
Geographical Reference Latitude: 47°42' Longitude: -97°40'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) Agricultural
Depth of Sampling 0-6"
Collected by Gasia Pollest

****

Site Identification Goose River Sediment
Sample ID 00-2406 AGVISE Lab#
Geographical Reference Latitude: 47°45' Longitude: -97°37'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) NA (River Bottom)
Depth of Sampling 0-6"
Collected by Art McNeil

****

Site Identification Kittson Co. Clay
Sample ID AGVISE Lab# 00-2407
Geographical Reference Latitude: 48°62' Longitude: -96°89'
Date of Sampling 10-21-00
Use Pattern (e.g. agricultural, forest, etc.) Agricultural
Depth of Sampling 0-6"
Collected by John Lee

Samples were collected, dried on trays and ground using a ~~mmx~~ grinder with a 1mm sieve.
11-2-00 KBB

11-2-00 KBB

☒ GLP ☐ Non-GLP

Characterization Chain of Custody

AGVISE Laboratories, Inc.
P.O. Box 510/Highway 15 • Northwood, ND 58267
Telephone (701) 587-6010 • FAX (701) 587-6013

Series 1. Soil Characterization - 500 g sample minimum
pH, % organic matter, cation exchange capacity, water holding capacity (1/3 and 15 bar), % sand-silt-clay, texture, bulk density, % total nitrogen, phosphorus, and soluble salts.

Series 2. Soil Characterization - 500 g sample minimum
pH, % organic matter, cation exchange capacity, water holding capacity (1/3 bar), % sand-silt-clay, texture, and bulk density.

Series 3. Water Characterization - 500 ml sample minimum
pH, calcium, magnesium, sodium, hardness, conductivity, sodium absorption ratio, total dissolved solids, and turbidity.

Series 4. Water Characterization - 500 ml sample minimum
pH, calcium, magnesium, sodium, hardness, sodium absorption ratio, and conductivity.

SEND RESULTS TO:
3M
Bldg. 2-3E-09, 935 Bush Ave
St. Paul, MN 55106
Contact: Mark Ellefson
Phone:

BILL TO:
Same
Purchase Order #

AGVISE Use Only
Date received 10-20-00
By Ellen Berg

Protocol / Study #
Test Substance
Study Director
Sponsor
Initiation Date

Study Director's Management
Nature of Study ____ Test System: Soil / Water
Circle One

Comments	AGVISE Lab #	Specimen I.D.	Depth	Requested Test(s)
	00-2404	Dow Wetland Loam	0-6	Sand/Silt/Clay
	00-2405	K. Brocrew Clay Loam	0-6	CEC pH
	00-2406	Cross River Sediment	0-6	Organic Carbon
				Organic Matter
				Cation exchange Capacity
				Total Nitrogen

METHOD OF SHIPMENT:
Shipment I.D. #(s)
Fed Express ☐
UPS ☐
USPS ☐
Other Hand Delivered

Sent by Collected by Agvise Laboratories 10-19-00
Fax: Chris Folkert
Date: 10-20-00 AM

Other instructions:

COPY OF ORIGINAL
AGVISE Laboratories, Inc.
Initial EB Date 10-23-00

A copy of this COC will be mailed to you when specimens are received by Lab.

12/98

USE LOG
Barnes Loam TCR-00065-058

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
954.7g	60.1 g	894.6 g	E00-1311Suitable An Study	904	LCG	10/25/2000

USE LOG
Barnes Loam TCR-00065-058

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
834.6g	60.2g	774.4g	E00-1311 Sorption Study	904	LCG	11/13/2000

Test Control and Reference Substance Log

Substance trade name or reference #	**Clay**	TCR Substance #	TCR-[redacted] AQ 00026-017
Substance/chemical name:	**soil**		CMC 5124/01
Lot/batch #:	**Kittson Co. 00-2407**	Received from:	**Agvise**
3M #	**NA**		
Expiration date:	**12/31/2015**	Amount received (wt. or vol):	**Bulk**
Initials:	**LCG**	Date:	**10/25/2000**
Number/size of containers:	**1L Nalgene**	Shipper:	**FedEx**
Condition:	**dried and sieved**	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	**NA**
Records received:	**Agvise Soil Characterization Report 00-2407**
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**Container stored ambient in TCR-CO2. LCG 12/26/00**
Molecular Formula:	
Comments	**1363.9g-original weight and container LCG 10/25/00**
Attachment(s)	kittson co clay-0-6.pdf

AGVISE LABORATORIES

Highway 15
P.O. Box 510
Northwood, ND 58267
(701) 587-6010
FAX (701) 587-6013
email: agvise@polarcomm.com
Homepage: agviselabs.com

AGVISE Soil Characterization Report

Submitting firm = 3M
Protocol or Study No = NA
Sample ID. = KITTSON CO CLAY 0-6
Trial ID. = NA
Date Received = 10-23-00
Date Reported = 11-02-2000

AGVISE Lab No	00- 2407
Percent Sand	16
Percent Silt	22
Percent Clay	62
USDA Textural Class (hydrometer method)	Clay
Cation Exchange Capacity (meq/100 g)	54.5
Percent Organic Carbon	2.6
Percent Organic Matter	4.5
pH in 0.01 M CaCl2	7.2
Total Nitrogen (%)	0.223

Base Saturation Data

Cation	Percent	ppm
Calcium	54.2	5900
Magnesium	34.6	2260
Sodium	0.9	110
Potassium	3.6	771
Hydrogen	6.8	37

These tests were completed in compliance of 40 CFR Part 160.

Robert Deutsch — Date: 11-2-00
Soil Scientist/Analytical Investigator

AGVISE LABORATORIES

Highway 15
P.O. Box 510
Northwood, ND 58267
(701) 587-6010
FAX (701) 587-6013
email: agvise@polarcomm.com
Homepage: agviselabs.com

The following personnel have been duly trained to perform Plant Analysis, Soil and Water Characterization methods under 40 CFR Part 160 Good Laboratory Practice Standards.

Technical Support Staff

Anderson, Linda M. - Technician III
Deutsch, Robert L. - President
Hart, Linda M. - Technician III
Hime, Sherry L. - Technician I
Johnson, Julie M. - Nutrient Laboratory Manager
McNeil, Vigo (Art) - Technician I
Moen, Lucinda S. - Technician III
Pollert, Garis - Nutrient Laboratory Analyst
Pollock, John - Technician I
Wall, Mary J. - Technician II
Wyant, Linda L. - Technician I

Office Support Staff

Berg, Eileen A. - Secretary III
Ducioame, Gail M. - Quality Control Specialist
Fuglestad, Teresa S. - Secretary II
Hagen, Shelly J. - Administrative Assistant

Quality Assurance

Thingelstad, Mary L. - Quality Assurance Manager

COPY OF ORIGINAL
AGVISE Laboratories, Inc.
Initial ES Date 10/28/00

05/00

Bulk Density - Disturbed bulk density is determined by weighing a known volume of dried and ground soil (NUT.02.10). Core or non-disturbed bulk density is determined by weighing a known volume of an intact, dried soil core (NUT.02.02).

Water Holding Capacity and Water Relations

Moisture % - Determined by gravimetric loss upon drying (NUT.02.36).

Saturated Hydraulic Conductivity - Determined by using the constant head method and measuring the rate of flow of water through a saturated soil column (NUT.02.34).

Water Infiltration Rate - Determined by using the constant head method and measuring the length of time from water application to production of a leachate from a soil column (NUT.02.35).

Water Holding Capacity - Determined by measuring the moisture remaining when saturated soil is placed under 1/3 or 0.10 bar pressure (NUT.02.08).

Water Holding Capacity - Determined by measuring the moisture remaining when saturated soil is placed under 15 bar pressure (NUT.02.13).

All of the above methods are detailed in the current analytical SOPs used by AGVISE Laboratories' Characterization testing laboratory.

NUT.05.01. Long Term Storage of Soil and Water Characterization Specimens: According to this SOP, soil characterization samples will be retained by AGVISE Laboratories for at least two years before disposal and water characterization samples will be retained for a period of 60 days before disposal.

ADM.05.01. Archivist Duties and Archiving Procedures: This SOP states that copies of soil and water characterization reports, original COC's and original raw data will be archived within 60 days after the signature by the analytical investigator. Hard copies generated by computer will be archived weekly, and supplemental data will be archived annually.

QAU.08.01. Quality Assurance Inspections of Facilities, Studies, and Processes for GLP Compliance: Method inspections will be performed on a regular basis at AGVISE Laboratories, Inc. For soil characterization, two methods will be inspected per month and one water characterization inspection will be conducted per month. An annual facility audit will be performed by AGVISE Laboratories, Inc. Quality Assurance Unit.

All of the above methods are detailed in the current analytical SOP's used in AGVISE Laboratories' characterization laboratory.

APPROVED BY
ANALYTICAL INVESTIGATOR: _____ 10/10/97
Robert L. Deutsch, Soil Scientist **Date**

COPY OF ORIGINAL
AGVISE Laboratories, Inc.
Initial _____ Date 10-13-00

Collection Information

Site Identification Don Uglem Loam
Sample ID AGVISE Lab# 00-2404
Geographical Reference Latitude: 47°44' Longitude: -97°48'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) Native Prairie
Depth of Sampling 0-6"
Collected by Maria Pollert

****

Site Identification K. Broeren Clay Loam
Sample ID AGVISE Lab# 00-2405
Geographical Reference Latitude: 47°42' Longitude: -97°40'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) Agricultural
Depth of Sampling 0-6"
Collected by Maria Pollert

****

Site Identification Goose River Sediment
Sample ID 00-2406 AGVISE Lab#
Geographical Reference Latitude: 47°45' Longitude: -97°37'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) NA (River Bottom)
Depth of Sampling 0-6"
Collected by Art McNeil

****

Site Identification Kittson Co. Clay
Sample ID AGVISE Lab# 00-2407
Geographical Reference Latitude: 48°62' Longitude: -96°89'
Date of Sampling 10-21-00
Use Pattern (e.g. agricultural, forest, etc.) Agricultural
Depth of Sampling 0-6"
Collected by John Lee

Samples were collected, dried on trays and ground using a ~~mm~~ grinder with a 1mm sieve.
11-2-00 KJB

11-2-00 KJB

☒ GLP ☐ Non-GLP

Characterization Chain of Custody

AGVISE Laboratories, Inc.
P.O. Box 510/Highway 15 • Northwood, ND 58267
Telephone (701) 587-6010 • FAX (701) 587-6013

SEND RESULTS TO:
3M
Bldg. 2-3E-09, 935 Bush Ave
St. Paul, MN 55106
Contact: Mark Ellefson
Phone:

BILL TO:
Same
Purchase Order #

Series 1. Soil Characterization - 500 g sample minimum
pH, % organic matter, cation exchange capacity, water holding capacity (1/3 and 15 bar), % sand-silt-clay, texture, bulk density, % total nitrogen, phosphorus, and soluble salts.

Series 2. Soil Characterization - 500 g sample minimum
pH, % organic matter, cation exchange capacity, water holding capacity (1/3 bar), % sand-silt-clay, texture, and bulk density.

Series 3. Water Characterization - 500 ml sample minimum
pH, calcium, magnesium, sodium, hardness, conductivity, sodium absorption ratio, total dissolved solids, and turbidity.

Series 4. Water Characterization - 500 ml sample minimum
pH, calcium, magnesium, sodium, hardness, sodium absorption ratio, and conductivity.

AGVISE Use Only
Date received 10-20-00
By Ellen Berg

Protocol / Study #
Test Substance
Study Director
Sponsor
Initiation Date

Study Director's Management
Nature of Study ____ Test System: Soil / Water
Circle One

Comments	AGVISE Lab #	Specimen I.D.	Depth	Requested Test(s)
	00-2404	Dowagiac Loam	0-6	Sand/Silt/Clay
	00-2405	K. Brocton Clay Loam	0-6	Soil pH
	00-2406	Cross River Sediment	0-6	Organic Carbon
				Organic Matter
				Cation exchange Capacity
				Total Nitrogen

METHOD OF SHIPMENT:
Shipment I.D. #(s)
Fed Express ☐
UPS ☐
USPS ☐
Other Hand Delivered

Sent by Collected by AGVISE Laboratories 10-19-00
Fax: Carl's Patient
Date: 10-20-00 AM

Other instructions:

COPY OF ORIGINAL
AGVISE Laboratories, Inc.
Initial EB Date 10-23-00

A copy of this COC will be mailed to you when specimens are received by Lab.

12/98

USE LOG
Clay soil TCR-00065-077

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
1243.7 g	60.1 g	1183.6 g	E00-1311 Sorption	904	LCG	11/13/2000

USE LOG
Clay soil TCR-00065-077

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
696.0 g	255.76g	440.24g	E00-1311 Sorption Study	904/916	LCG	11/28/2000

USE LOG
Clay soil TCR-00065-077

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
390.82 g	22.44 g	368.38 g	E00-1311 PFOS Adsorb/Desorb	904/916	CMC	01/22/2001

USE LOG
Clay soil TCR-00065-077

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
368.37 g	75.27 g	293.1 g	E00-1311 PFOS Ads/Des	904/914	CMC	01/25/2001

USE LOG
Clay soil TCR-00065-077

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
293.01 g	97.54 g	195.47 g	E00-1311 PFOS Ads/Des	904/916	CMC	01/29/2001

USE LOG
Clay soil TCR-00065-77

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
1363.9 g	60.2 g	1303.7 g	E00-1311 Suitable Analytical	904	LCG	10/25/2000

Test Control and Reference Substance Log

Substance trade name or reference #	Clay Loam	TCR Substance #	TCR-[redacted] (AC) 000605-0644
Substance/chemical name:			CMC 5/24/01
Lot/batch #:	K. Broeren 00-2405	Received from:	Agvise
3M #	NA		
Expiration date:	12/31/2015	Amount received (wt. or vol):	Bulk
Initials:	LCG	Date:	10/23/2000
Number/size of containers:		Shipper:	Fed Ex
Condition:	Dried and Sieved	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	NA
Records received:	Agvise Soil Characterization Report 00-2405
Location of synthesis, fabrication, or derivation records:	NA
Std Location/Storage:	Container stored ambient in TCR-CO2. LCG 12/26/00
Molecular Formula:	
Comments	TCR sticker added after original weight taken. LCG 10/25/00
Attachment(s)	K Broeren clay loam-0-6.pdf

AGVISE LABORATORIES

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Northwood, ND 58267
(701) 587-6010
FAX (701) 587-6013
email: agvise@polarcomm.com
Homepage: agviselabs.com

AGVISE Soil Characterization Report

Submitting firm = 3M
Protocol or Study No = NA
Sample ID. = K BROEREN-CLAY LOAM 0-6
Trial ID. = NA
Date Received = 10-23-00
Date Reported = 10-31-2000

AGVISE Lab No	00- 2405
Percent Sand	21
Percent Silt	46
Percent Clay	33
USDA Textural Class (hydrometer method)	Clay Loam
Cation Exchange Capacity (meq/100 g)	24.7
Percent Organic Carbon	2.6
Percent Organic Matter	4.4
pH in 0.01 M CaCl2	6.0
Total Nitrogen (%)	0.216

Base Saturation Data

Cation	Percent	ppm
Calcium	52.7	2600
Magnesium	24.3	720
Sodium	0.7	39
Potassium	5.8	557
Hydrogen	16.5	41

These tests were completed in compliance of 40 CFR Part 160.

Julie M. Johnson
Julie M. Johnson
Analytical Investigator

10-31-00
Date

AGVISE LABORATORIES

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McNeil, Vigo (Art) - Technician I
Moen, Lucinda S. - Technician III
Pollert, Garis - Nutrient Laboratory Analyst
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Wyant, Linda L. - Technician I

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Ducioame, Gail M. - Quality Control Specialist
Fuglestad, Teresa S. - Secretary II
Hagen, Shelly J. - Administrative Assistant

Quality Assurance

Thingelstad, Mary L. - Quality Assurance Manager

COPY OF ORIGINAL
AGVISE Laboratories, Inc.
Initial ES Date 10-28-00

05/00

Bulk Density - Disturbed bulk density is determined by weighing a known volume of dried and ground soil (NUT.02.10). Core or non-disturbed bulk density is determined by weighing a known volume of an intact, dried soil core (NUT.02.02).

Water Holding Capacity and Water Relations

Moisture % - Determined by gravimetric loss upon drying (NUT.02.36).

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Water Infiltration Rate - Determined by using the constant head method and measuring the length of time from water application to production of a leachate from a soil column (NUT.02.35).

Water Holding Capacity - Determined by measuring the moisture remaining when saturated soil is placed under 1/3 or 0.10 bar pressure (NUT.02.08).

Water Holding Capacity - Determined by measuring the moisture remaining when saturated soil is placed under 15 bar pressure (NUT.02.13).

All of the above methods are detailed in the current analytical SOPs used by AGVISE Laboratories' Characterization testing laboratory.

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All of the above methods are detailed in the current analytical SOP's used in AGVISE Laboratories' characterization laboratory.

APPROVED BY
ANALYTICAL INVESTIGATOR: _____ 10/10/97
Robert L. Deutsch, Soil Scientist **Date**

COPY OF ORIGINAL
AGVISE Laboratories, Inc.
Initial _____ Date 10-13-00

Collection Information

Site Identification Don Uglem Loam
Sample ID AGVISE Lab# 00-2404
Geographical Reference Latitude: 47°44' Longitude: -97°48'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) Native Prairie
Depth of Sampling 0-6"
Collected by Maria Pollert

****

Site Identification K. Broeren Clay Loam
Sample ID AGVISE Lab# 00-2405
Geographical Reference Latitude: 47°42' Longitude: -97°40'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) Agricultural
Depth of Sampling 0-6"
Collected by Maria Pollert

****

Site Identification Goose River Sediment
Sample ID 00-2406 AGVISE Lab#
Geographical Reference Latitude: 47°45' Longitude: -97°37'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) NA (River Bottom)
Depth of Sampling 0-6"
Collected by Art McNeil

****

Site Identification Kittson Co. Clay
Sample ID AGVISE Lab# 00-2407
Geographical Reference Latitude: 48°62' Longitude: -96°89'
Date of Sampling 10-21-00
Use Pattern (e.g. agricultural, forest, etc.) Agricultural
Depth of Sampling 0-6"
Collected by John Lee

Samples were collected, dried on trays and ground using a ~~mm~~ grinder with a 1mm sieve.
11-2-00 KBB

11-2-00 KBB

☒ GLP ☐ Non-GLP

Characterization Chain of Custody

AGVISE Laboratories, Inc.
P.O. Box 510/Highway 15 • Northwood, ND 58267
Telephone (701) 587-6010 • FAX (701) 587-6013

Series 1. Soil Characterization - 500 g sample minimum
pH, % organic matter, cation exchange capacity, water holding capacity (1/3 and 15 bar), % sand-silt-clay, texture, bulk density, % total nitrogen, phosphorus, and soluble salts.

Series 2. Soil Characterization - 500 g sample minimum
pH, % organic matter, cation exchange capacity, water holding capacity (1/3 bar), % sand-silt-clay, texture, and bulk density.

Series 3. Water Characterization - 500 ml sample minimum
pH, calcium, magnesium, sodium, hardness, conductivity, sodium absorption ratio, total dissolved solids, and turbidity.

Series 4. Water Characterization - 500 ml sample minimum
pH, calcium, magnesium, sodium, hardness, sodium absorption ratio, and conductivity.

SEND RESULTS TO:
3M
Bldg. 2-3E-09, 935 Bush Ave
St. Paul, MN 55106
Contact: Mark Ellefson
Phone:

BILL TO:
Same
Purchase Order #

AGVISE Use Only
Date received 10-20-00
By Ellen Berg

Protocol / Study #
Test Substance
Study Director
Sponsor
Initiation Date

Study Director's Management
Nature of Study ____ Test System: Soil / Water (Circle One)

Comments	AGVISE Lab #	Specimen I.D.	Depth	Requested Test(s)
	00-2404	Dowagiac Loam	0-6	Sand/Silt/Clay
	00-2405	K. Brocraw Clay Loam	0-6	pH
	00-2406	Grose River Sediment	0-6	Organic Carbon
				Organic Matter
				Cation Exchange Capacity
				Total Nitrogen

METHOD OF SHIPMENT:
Shipment I.D. #(s)
Fed Express ☐
UPS ☐
USPS ☐
Other Hand Delivered

Sent by Collected by AGVISE Laboratories 10-19-00
Fax: Chris Pollert
Date: 10-20-00

Other instructions:

COPY OF ORIGINAL
AGVISE Laboratories, Inc.
Initial EB Date 10-23-00

A copy of this COC will be mailed to you when specimens are received by Lab.

12/98

USE LOG
Clay Loam TCR-00065-065

Gross Wt./Vol. Before withdrawal Balance ID 1	Amnt. withdrawn (mass or vol) Balance ID 2	Gross wt/vol after withdrawal Balance ID 1	Purpose (enter standard number or reason for removal)	Balance ID 1	Balance ID 2	Initials	Date
1188.0 g	79.2 g	1108.8 g	E00-1311 PFOS Adsorb/Desorb	904/914		CMC	01/20/2001

USE LOG
Clay Loam TCR-00065-064

Gross Wt./Vol. Before withdrawal Balance ID 1	Amnt. withdrawn (mass or vol) Balance ID 2	Gross wt/vol after withdrawal Balance ID 1	Purpose (enter standard number or reason for removal)	Balance ID 1	Balance ID 2	Initials	Date
1055.7g	60.2g	995.5g	E00-1311 Sorption	904		LCG	11/13/2000

USE LOG
Clay Loam TCR-00065-065

Gross Wt./Vol. Before withdrawal Balance ID 1	Amnt. withdrawn (mass or vol) Balance ID 2	Gross wt/vol after withdrawal Balance ID 1	Purpose (enter standard number or reason for removal)	Balance ID 1	Balance ID 2	Initials	Date
1108.8 g	97.3 g	1011.5 g	E00-1311 PFOS Ads/Desorb	904/916		CMC	01/30/2001

USE LOG
Clay Loam TCR-00065-064

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
1175.7g	60.0 g	1115.7 g	~~E00-1211 Suit. Naly Study~~	904	LCG	10/25/2000

E00-1311 Suit Anal. Study
(Re) CMC 5/24/01

USE LOG
Clay Loam TCR-00065-064

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
1055.7g	60.2g	995.5g	E00-1311 Sorption	904	LCG	11/13/2000

Test Control and Reference Substance Log

Substance trade name or reference #	**Clay Loam**	TCR Substance #	TCR-[redacted] (A) CCCC05 - DC05 cmc 5/24/01 -
Substance/chemical name:			
Lot/batch #:	**"K. Broeren" 00-2405**	Received from:	**Agvise**
3M #	**NA**		
Expiration date:	**12/31/2015**	Amount received (wt. or vol):	**bulk**
Initials:	**LCG**	Date:	**10/23/2000**
Number/size of containers:		Shipper:	**FedEx**
Condition:	**Dried and Sieved**	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	**NA**
Records received:	**Agvise Soil Characterization Report 00-2405**
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**Container stored ambient in TCR-CO2. LCG 12/26/00**
Molecular Formula:	
Comments	
Attachment(s)	K Broeren clay loam-0-6.pdf

USE LOG
Clay Loam TCR-00065-065

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
1188.0 g	79.2 g	1108.8 g	E00-1311 PFOS Adsorb/Desorb	904/914	CMC	01/20/2001

USE LOG
Clay Loam **TCR-00065-065**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
1108.8 g	**97.3 g**	**1011.5 g**	**E00-1311 PFOS Ads/Desorb**	**904/916**	**CMC**	**01/30/2001**

Test Control and Reference Substance Log

Substance trade name or reference #	**River Sediment**	TCR Substance #	TCR-[redacted] (AC) 000165-070 cinc 5/24/01
Substance/chemical name:			
Lot/batch #:		Received from:	**Agvise**
3M #			
Expiration date:	**12/31/2015**	Amount received (wt. or vol):	**Bulk**
Initials:	**LCG**	Date:	**10/23/2000**
Number/size of containers:		Shipper:	**FedEx**
Condition:	**Dried and Sieved**	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	**NA**
Records received:	**Agvise Soil Characterization Report 00-2406**
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**Container stored ambient in TCR-CO2. LCG 12/26/00**
Molecular Formula:	
Comments	**TCR sticker added after original weight was taken. LCG 10/25/00**
Attachment(s)	

AGVISE LABORATORIES

Highway 15
P.O. Box 510
Northwood, ND 58267
(701) 587-6010
FAX (701) 587-6013
email: agvise@polarcomm.com
Homepage: agviselabs.com

AGVISE Soil Characterization Report

Submitting firm = 3M
Protocol or Study No = NA
Sample ID. = GOOSE RIVER-SEDIMENT 0-6
Trial ID. = NA
Date Received = 10-23-00
Date Reported = 10-31-2000

AGVISE Lab No	00- 2406
Percent Sand	39
Percent Silt	42
Percent Clay	19
USDA Textural Class (hydrometer method)	Loam
Cation Exchange Capacity (meq/100 g)	17.5
Percent Organic Carbon	1.3
Percent Organic Matter	2.3
pH in 0.01 M CaCl2	7.7
Total Nitrogen (%)	0.101

Base Saturation Data

Cation	Percent	ppm
Calcium	57.2	2000
Magnesium	28.6	600
Sodium	4.8	193
Potassium	3.4	232
Hydrogen	6.0	10

These tests were completed in compliance of 40 CFR Part 160.

Julie M. Johnson — 10-31-00

Julie M. Johnson
Analytical Investigator

Date

AGVISE LABORATORIES

Highway 15
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The following personnel have been duly trained to perform Plant Analysis, Soil and Water Characterization methods under 40 CFR Part 160 Good Laboratory Practice Standards.

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Anderson, Linda M. - Technician III
Deutsch, Robert L. - President
Hart, Linda M. - Technician III
Hime, Sherry L. - Technician I
Johnson, Julie M. - Nutrient Laboratory Manager
McNeil, Vigo (Art) - Technician I
Moen, Lucinda S. - Technician III
Pollert, Garis - Nutrient Laboratory Analyst
Pollock, John - Technician I
Wall, Mary J. - Technician II
Wyant, Linda L. - Technician I

Office Support Staff

Berg, Eileen A. - Secretary III
Ducioame, Gail M. - Quality Control Specialist
Fuglestad, Teresa S. - Secretary II
Hagen, Shelly J. - Administrative Assistant

Quality Assurance

Thingelstad, Mary L. - Quality Assurance Manager

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AGVISE Laboratories, Inc.
Initial ES Date 10-28-00

05/00

Bulk Density - Disturbed bulk density is determined by weighing a known volume of dried and ground soil (NUT.02.10). Core or non-disturbed bulk density is determined by weighing a known volume of an intact, dried soil core (NUT.02.02).

Water Holding Capacity and Water Relations

Moisture % - Determined by gravimetric loss upon drying (NUT.02.36).

Saturated Hydraulic Conductivity - Determined by using the constant head method and measuring the rate of flow of water through a saturated soil column (NUT.02.34).

Water Infiltration Rate - Determined by using the constant head method and measuring the length of time from water application to production of a leachate from a soil column (NUT.02.35).

Water Holding Capacity - Determined by measuring the moisture remaining when saturated soil is placed under 1/3 or 0.10 bar pressure (NUT.02.08).

Water Holding Capacity - Determined by measuring the moisture remaining when saturated soil is placed under 15 bar pressure (NUT.02.13).

All of the above methods are detailed in the current analytical SOPs used by AGVISE Laboratories' Characterization testing laboratory.

NUT.05.01. Long Term Storage of Soil and Water Characterization Specimens: According to this SOP, soil characterization samples will be retained by AGVISE Laboratories for at least two years before disposal and water characterization samples will be retained for a period of 60 days before disposal.

ADM.05.01. Archivist Duties and Archiving Procedures: This SOP states that copies of soil and water characterization reports, original COC's and original raw data will be archived within 60 days after the signature by the analytical investigator. Hard copies generated by computer will be archived weekly, and supplemental data will be archived annually.

QAU.08.01. Quality Assurance Inspections of Facilities, Studies, and Processes for GLP Compliance: Method inspections will be performed on a regular basis at AGVISE Laboratories, Inc. For soil characterization, two methods will be inspected per month and one water characterization inspection will be conducted per month. An annual facility audit will be performed by AGVISE Laboratories, Inc. Quality Assurance Unit.

All of the above methods are detailed in the current analytical SOP's used in AGVISE Laboratories' characterization laboratory.

APPROVED BY
ANALYTICAL INVESTIGATOR: _____ 10/10/97
Robert L. Deutsch, Soil Scientist **Date**

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AGVISE Laboratories, Inc.
Initial _____ Date 10-13-00

Collection Information

Site Identification Don Uglem Loam
Sample ID AGVISE Lab# 00-2404
Geographical Reference Latitude: 47°44' Longitude: -97°48'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) Native Prairie
Depth of Sampling 0-6"
Collected by Gavin Pollert

****

Site Identification K. Broeren Clay Loam
Sample ID AGVISE Lab# 00-2405
Geographical Reference Latitude: 47°42' Longitude: -97°40'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) Agricultural
Depth of Sampling 0-6"
Collected by Gavin Pollert

****

Site Identification Goose River Sediment
Sample ID 00-2406 AGVISE Lab#
Geographical Reference Latitude: 47°45' Longitude: -97°37'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) NA (River Bottom)
Depth of Sampling 0-6"
Collected by Art McNeil

****

Site Identification Kittson Co. Clay
Sample ID AGVISE Lab# 00-2407
Geographical Reference Latitude: 48°62' Longitude: -96°89'
Date of Sampling 10-21-00
Use Pattern (e.g. agricultural, forest, etc.) Agricultural
Depth of Sampling 0-6"
Collected by John Lee

Samples were collected, dried on trays and ground using a ~~mm~~ grinder with a 1mm sieve.
11-2-00 KJB

11-2-00 KJB

☒ GLP ☐ Non-GLP

Characterization Chain of Custody

AGVISE Laboratories, Inc.
P.O. Box 510/Highway 15 • Northwood, ND 58267
Telephone (701) 587-6010 • FAX (701) 587-6013

Series 1. Soil Characterization - 500 g sample minimum
pH, % organic matter, cation exchange capacity, water holding capacity (1/3 and 15 bar), % sand-silt-clay, texture, bulk density, % total nitrogen, phosphorus, and soluble salts.

Series 2. Soil Characterization - 500 g sample minimum
pH, % organic matter, cation exchange capacity, water holding capacity (1/3 bar), % sand-silt-clay, texture, and bulk density.

Series 3. Water Characterization - 500 ml sample minimum
pH, calcium, magnesium, sodium, hardness, conductivity, sodium absorption ratio, total dissolved solids, and turbidity.

Series 4. Water Characterization - 500 ml sample minimum
pH, calcium, magnesium, sodium, hardness, sodium absorption ratio, and conductivity.

SEND RESULTS TO:
3M
Bldg. 2-3E-09, 935 Bush Ave
St. Paul, MN 55106
Contact: Mark Ellefson
Phone:

BILL TO:
Same
Purchase Order #

AGVISE Use Only
Date received 10-20-00
By Celia Berg

Protocol / Study #
Test Substance
Study Director
Sponsor
Initiation Date

Study Director's Management
Nature of Study ____ Test System: Soil / Water
Circle One

Comments	AGVISE Lab #	Specimen I.D.	Depth	Requested Test(s)
	00-2404	Dowagiac Loam	0-6	Sand/Silt/Clay
	00-2405	K. Bloomer Clay Loam	0-6	OM pH
	00-2406	Grose River Sediment	0-6	Organic Carbon
				Organic Matter
				Cation exchange Capacity
				Total Nitrogen

METHOD OF SHIPMENT:
Shipment I.D. #(s)
Fed Express ☐
UPS ☐
USPS ☐
Other Hand Delivered

Sent by Collected by AGVISE Laboratories 10-19-00
Fax: Carrie Pollert
Date: 10-20-00 AM

Other instructions:

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AGVISE Laboratories, Inc.
Initial ES Date 10-23-00

3M Environmental Laboratory

USE LOG
River Sediment **TCR-00065-070**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
1191.4 g	**60.1 g**	**1131.3 g**	**E00-1311 Suitable Analytical**	**904**	**LCG**	**10/25/2000**

USE LOG
River Sediment TCR-00065-070

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
1131.3g	60.0 g	1071.3 g	E00-1311 Sorption	904	LCG	11/13/2000

USE LOG
River Sediment **TCR-00065-070**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
592.9g	**256.16g**	**336.74g**	**E00-1311 Sorption Studies**	**904**	**LCG**	**11/28/2000**

USE LOG
River Sediment **TCR-00065-070**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
287.20 g	**23.9 g**	**263.3 g**	**E00-1311 PFOS Adsorb/Desorb**	**904/916**	**CMC**	**01/22/2001**

USE LOG
River Sediment **TCR-00065-070**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
263.23 g	**75.54 g**	**187.69 g**	**E00-1311 PFOS Adsorb/Desorb**	**904/914**	**CMC**	**01/24/2001**

Test Control and Reference Substance Log

Substance trade name or reference #	**Domestic Sludge**	TCR Substance #	**TCR-00065-025**
Substance/chemical name:	**Domestic Sludge**		
Lot/batch #:	**2781**	Received from:	**NIST**
3M #	**NA**		
Expiration date:	**10/31/2005**	Amount received (wt. or vol):	**40 g (per vendor)**
Initials:	**LCG**	Date:	**10/03/2000**
Number/size of containers:	**1 of 15**	Shipper:	**UPS**
Condition:	**freeze- dried**	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	**NA**
Records received:	**certificate of analysis SRM 2781**
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**Container stored ambient (10-30C) in TCR-CO2. LCG 12/26/00**
Molecular Formula:	
Comments	
Attachment(s)	domestic sludge.pdf

USE LOG
Domestic Sludge **Domestic Sludge** **TCR-00065-025**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
164.58 g	**40.92 g**	**423.66 g**	**E00-1311 Suitable Analytical**	**904**	**LCG**	**10/25/2000**

Test Control and Reference Substance Log

Substance trade name or reference #	**Domestic Sludge**	TCR Substance #	**TCR-00065-026**
Substance/chemical name:	**Domestic Sludge**		
Lot/batch #:	**2781**	Received from:	**NIST**
3M #	**NA**		
Expiration date:	**10/31/2005**	Amount received (wt. or vol):	**40 g (per vendor)**
Initials:	**LCG**	Date:	**10/03/2000**
Number/size of containers:	**2 of 15**	Shipper:	**UPS**
Condition:	**freeze-dried**	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	**NA**
Records received:	**Certificate of Analysis SRM 2781**
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**Container stored ambient (10-30C) in TCR-CO2. LCG 12/26/00**
Molecular Formula:	
Comments	
Attachment(s)	domestic sludge.pdf

USE LOG
Domestic Sludge **Domestic Sludge** **TCR-00065-026**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
164.61 g	**19.12 g**	**145.49 g**	**E00-1311 gSuitable Analytical**	**904**	**LCG**	**10/25/2000**

Test Control and Reference Substance Log

Substance trade name or reference #	**Domestic Sludge**	TCR Substance #	**TCR-00065-027**
Substance/chemical name:	**Domestic sludge**		
Lot/batch #:	**2781**	Received from:	**NIST**
3M #	**NA**		
Expiration date:	**10/31/2005**	Amount received (wt. or vol):	**40 g (per vendor)**
Initials:	**LCG**	Date:	**10/03/2000**
Number/size of containers:	**3 of 15**	Shipper:	**UPS**
Condition:	**freeze-dried**	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	
Records received:	**certificate of analysis SRM 2781**
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**container was stored ambient. LCG 12/26/00**
Molecular Formula:	
Comments	
Attachment(s)	domestic sludge.pdf

USE LOG
Domestic Sludge **Domestic sludge** **TCR-00065-027**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
125.38g	**3.50g**	**121.88g**	**Sorption E00-1311**	**904**	**LCG**	**11/13/2000**

Test Control and Reference Substance Log

Substance trade name or reference #	**Domestic Sludge**	TCR Substance #	**TCR-00065-028**
Substance/chemical name:	**Domestic Sludge**		
Lot/batch #:	**2781**	Received from:	**NIST**
3M #	**NA**		
Expiration date:	**10/31/2005**	Amount received (wt. or vol):	**40 g (per vendor)**
Initials:	**LCG**	Date:	**10/03/2000**
Number/size of containers:	**4 of 15**	Shipper:	**UPS**
Condition:	**freeze-dried**	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	**NA**
Records received:	**Certificate of analysis SRM 2781**
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**Container was stored ambient. LCG 12/26/00**
Molecular Formula:	
Comments	
Attachment(s)	domestic sludge.pdf

USE LOG
Domestic Sludge **Domestic Sludge** **TCR-00065-028**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
164.74g	**41.56g**	**123.18g**	**E00-1311 Sorption Study**	**904**	**LCG**	**11/13/2000**

Test Control and Reference Substance Log

Substance trade name or reference #	**Domestic Sludge**	TCR Substance #	**TCR-00065-029**
Substance/chemical name:	**Domestic Sludge**		
Lot/batch #:	**2781**	Received from:	**NIST**
3M #	**NA**		
Expiration date:	**10/31/2005**	Amount received (wt. or vol):	**40 g(per vendor)**
Initials:	**LCG**	Date:	**10/03/2000**
Number/size of containers:	**5 of 15**	Shipper:	**UPS**
Condition:	**freeze-dried**	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	**NA**
Records received:	**Certificate of analysis SRM 2781**
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**Container stored ambient (10-30C) in TCR-CO2. LCG 12/26/00**
Molecular Formula:	
Comments	
Attachment(s)	domestic sludge.pdf

USE LOG
Domestic Sludge Domestic Sludge TCR-00065-029

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
162.69g	15.38g	147.31g	E00-1311 Sorption Study	904	LCG	11/13/2000

USE LOG
Domestic Sludge **Domestic Sludge** **TCR-00065-029**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
147.06 g	**25.06 g**	**122.00 g**	**E00-1311 Sorption Study**	**904**	**CMC**	**01/24/2001**

Test Control and Reference Substance Log

Substance trade name or reference #	**Domestic Sludge**	TCR Substance #	**TCR-00065-030**
Substance/chemical name:	**Domestic Sludge**		
Lot/batch #:	**2781**	Received from:	**NIST**
3M #	**NA**		
Expiration date:	**10/31/2005**	Amount received (wt. or vol):	**40g (per vendor)**
Initials:	**LCG**	Date:	**10/03/2000**
Number/size of containers:	**6 of 15**	Shipper:	**UPS**
Condition:	**Freeze-dried**	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	**NA**
Records received:	**certificate of analysis SRM 2781**
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**Container stored ambient (10-30C) in TCR-CO2. LCG 12/26/00**
Molecular Formula:	
Comments	
Attachment(s)	domestic sludge.pdf

USE LOG
Domestic Sludge **Domestic Sludge** **TCR-00065-030**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
165.67 g	**42.27 g**	**123.400 g**	**E00-1311 Adsrb/Desorb**	**914**	**CMC**	**01/24/2001**

Test Control and Reference Substance Log

Substance trade name or reference #	**Domestic Sludge**	TCR Substance #	**TCR-00065-031**
Substance/chemical name:	**Domestic Sludge**		
Lot/batch #:	**2781**	Received from:	**NIST**
3M #	**NA**		
Expiration date:	**10/31/2005**	Amount received (wt. or vol):	**40g (per vendor)**
Initials:	**LCG**	Date:	**10/03/2000**
Number/size of containers:	**7 of 15**	Shipper:	**UPS**
Condition:	**freeze-dried**	MSDS (y/n)	○ Y ● N
Retain		Date of Retain	

Purity:	**NA**
Records received:	**Certificate of analysis SRM 2718**
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**Container stored ambient (10-30C) in TCR-CO2. LCG 12/26/00**
Molecular Formula:	
Comments	
Attachment(s)	domestic sludge.pdf

USE LOG
Domestic Sludge **Domestic Sludge** **TCR-00065-031**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
163.78 g	**7.82 g**	**155.96 g**	**E00-1311 PFOS Adsorb/Disorb**	**914**	**CMC**	**01/24/2001**

National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material® 2781

Domestic Sludge

This Standard Reference Material (SRM) is intended primarily for use in the evaluation of methods used for the analysis of sludges and other materials of a similar matrix. SRM 2781 is a dried and pulverized domestic sludge. A unit of SRM 2781 consists of 40 g of the dried material.

Certified Values: The certified values for 10 elements are listed in Table 1 and are based on concordant results from two or more analytical methods.

Analytical methods used for the characterization of this SRM are given in Table 3. All values are reported as mass fractions [1], on a dry mass basis and are based on measurements using a sample mass of at least 100 mg.

Noncertified Values: Noncertified values for eleven additional elements are listed in Table 2 and were derived from a combination of results from NIST and collaborating laboratories. These results may have sources of bias yet to be investigated and do not meet NIST criteria for certification.

Expiration of Certification: This certification is valid for five years from the date of shipment from NIST. However, the certification will be nullified if the SRM is contaminated or modified. Should any of the values change before the expiration of the certification, purchasers will be notified by NIST. Return of the attached registration card will facilitate notification.

Stability: This material is considered to be stable; however, its stability has not been rigorously assessed. NIST will continuously monitor this material and report any substantive changes in certification to the purchaser.

Use: A minimum sample mass of 100 mg (dry mass - see Instructions for Drying) should be used and sample preparation procedures should be designed to effect complete dissolution for analytical determinations to be related to the certified values provided.

Instructions for Drying: When nonvolatile elements are to be determined, samples should be vacuum dried at room temperature for 24 h or oven dried for 2 h at 110 °C. Volatile elements (e.g., arsenic, mercury, and selenium) should be determined on samples as received; separate samples should be dried according to these instructions to obtain a correction factor for moisture. Moisture corrections are then made to measurement values before comparing them to the certified values. [Note that the mass loss on drying at the time of certification was found to be in the range of 4.7 % to 6.6 % when using the recommended drying procedures.]

Statistical consultation was provided by L.M. Gill of the NIST Statistical Engineering Division.

The overall direction and coordination of the analyses were under the chairmanship of J.D. Fassett of the NIST Analytical Chemistry Division.

The technical and support aspects involved in the original preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program by J.S. Kane. Revision of this certificate was coordinated through the Standard Reference Materials Program by B.S. MacDonald.

Gaithersburg, MD 20899
Certificate Issue Date: October 25, 1996
(Revision of certificate dated 6-22-95 to include addendum)

Thomas E. Gills, Chief
Standard Reference Materials Program

Source and Preparation of Material: The U.S. Geological Survey (USGS), under contract to NIST, obtained partially dehydrated sewage cake material from the Metropolitan Denver Sewage Disposal District No. 1. The material (approximately 182 kg) was placed in plastic-lined drums and transported to the USGS facilities in Lakewood, CO for processing. It was dried at ambient temperature in a forced air chamber, ground to pass a 74 m. (200 mesh) sieve, blended for 24 h to assure homogeneity of the pulverized material after which test samples were taken from the blender for preliminary homogeneity analyses. The material was then radiation sterilized. The sterilized material was shipped in bulk to NIST, where the material was bottled in 40 g units after reblending for 4 h.

Analysis: The homogeneity was assessed at USGS on 10 replicate samples of bulk material for over 40 elements using x-ray fluorescence (XRF) and/or inductively coupled plasma atomic emission spectrometry (ICP-AES). Homogeneity was further assessed during certification analysis; at sample sizes of 100 mg or greater. No sample-to-sample variations in excess of those expected from the analytical measurements were detected.

Certified Values and Uncertainties: The certified values are the means of the results from two or more independent analytical methods as described by Schiller and Eberhardt [2]. The uncertainty is based on a 95 % confidence interval for the true value, and includes an allowance for differences between the analytical methods used [3].

Table 1. Certified Mass Fractions

Element	Mass Fraction (in mg/kg)	Element	Mass Fraction (in %)
Arsenic	7.82 ± 0.28	Nitrogen	4.78 ± 0.11
Cadmium	12.78 ± 0.72		
Copper	627.4 ± 13.5		
Lead	202.1 ± 6.5		
Mercury	3.64 ± 0.25		
Molybdenum	46.7 ± 3.2		
Nickel	80.2 ± 2.3		
Selenium	16.0 ± 1.6		
Zinc	1273 ± 53		

Noncertified Values and Uncertainties: The noncertified values are the means of the results from two or more independent analytical methods as described by Schiller and Eberhardt [2]. The uncertainty is based on a 95 % confidence interval for the mean, and includes an allowance for differences between the analytical methods used [3]. As the accuracy of the measurements could not be assessed from the data, the uncertainty associated with a noncertified value may fail to include all sources of uncertainties and may represent only a measure of the precision of the measurement methods.

Table 2. Noncertified Mass Fractions

Element	Mass Fraction (in mg/kg)	Element	Mass Fraction (in %)
Chromium	202 ± 9	Aluminum	1.6 ± 0.1
Silver	98 ± 8	Calcium	3.9 ± 0.1
		Iron	2.8 ± 0.1
		Magnesium	0.59 ± 0.04
		Phosphorus	2.42 ± 0.09
		Potassium	0.49 ± 0.03
		Silicon	5.1 ± 0.2
		Sodium	0.21 ± 0.02
		Titanium	0.32 ± 0.03

Table 3. Methods used for the Analysis of SRM 2781*

Aluminum	INAA, ICP-AES, XRF
Arsenic	**RNAA, Hyd. AAS**, INAA
Cadmium	**ID-ICPMS, PGAA, RNAA**, INAA, **TXRF**
Calcium	INAA, TXRF, ICP-AES, XRF
Chromium	INAA, TXRF, ICP-AES
Copper	**ID-ICPMS, RNAA**, INAA, TXRF
Iron	INAA, TXRF, ICP-AES, XRF
Lead	**ICP-AES, ID-ICPMS**, TXRF
Magnesium	INAA, ICP-AES, XRF
Mercury	**FIA-CV-AAS, RNAA**, INAA
Molybdenum	**ID-ICPMS, ICP-AES, TXRF**, INAA
Nickel	**ICP-AES, ID-ICPMS**, INAA, TXRF
Nitrogen	**Kjeldahl, PGAA**
Phosphorus	Color, ICP-AES, XRF
Potassium	INAA, TXRF, ICP-AES
Selenium	**Hyd. AAS, RNAA, INAA, TXRF**
Silicon	XRF
Silver	RNAA, INAA, TXRF
Sodium	INAA, ICP-AES, XRF
Titanium	INAA, TXRF, XRF
Zinc	**ICP-AES, ID-ICPMS, INAA, TXRF**

*Methods used for establishment of certified values are shown in bold-face type; methods used for information only values or to corroborate certified values are not in bold.

Methods

FIA-CV-AAS	Flow injection analysis cold vapor atomic absorption spectrometry
Hyd. AAS	Hydride generation atomic absorption spectrometry
ICP-AES	Inductively coupled plasma atomic emission spectrometry
ID-ICPMS	Isotope dilution inductively coupled plasma mass spectrometry
INAA	Instrumental neutron activation analysis
PGAA	Prompt gamma activation analysis
RNAA	Radiochemical neutron activation analysis
TXRF	Total reflectance x-ray fluorescence
XRF	Wavelength dispersive x-ray fluorescence

NIST Analysts

M.H. Ahsan	J.R. Moody
E.S. Beary	B.R. Norman
C.M. Beck II	P.J. Paulsen
D.A. Becker	M.S. Rearick
M.S. Epstein	T.A. Rush
K. Garrity	R. Saraswati
R.R. Greenberg	J.M. Smeller
R.M. Lindstrom	R.L. Watters, Jr.
E.A. Mackey	L.J. Wood

Cooperating Analysts and Laboratories:

S. Landsberger and D. Wu; University of Illinois, Nuclear Engineering Department, Champaign, IL
S.A. Wilson, D. Siems, and P. Briggs; USGS, Lakewood, CO
A. Prange, U. Reus, and R. Neidergesäss; GKSS Research Center, Institute of Physical and Chemical Analytics, Geesthacht, Germany

REFERENCES

[1] Taylor, B.N., "Guide for the Use of the International System of Units (SI)," NIST Special Publication 811, 1995 Ed., (April 1995).

[2] Schiller, S.B. and Eberhardt, K.R., Combining Data from Independent Chemical Analysis Methods, **Spectrochimical Acta, 46B** (12), pp 1607-1613, (1991).

[3] *Guide to the Expression of Uncertainty in Measurement*, ISBN 92-67-10188-9, 1st Ed. ISO, Geneva, Switzerland, (1993): see also Taylor, B.N. and Kuyatt, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note, 1297, U.S. Government Printing Office, Washington D.C., (1994).

Addendum to Standard Reference Material® 2781

Domestic Sludge

Leachable Mass Fractions Using U.S. EPA and NJDEP Methods for Flame Atomic Absorption Spectrometry and Inductively Coupled Plasma Atomic Emission Spectrometry

The certified concentration values of constituent elements in this certificate are given as total mass fractions. To obtain total mass fractions, either subsamples of the SRM must be completely decomposed, or the sample must be analyzed directly in its solid form. For mixed acid dissolution, hydrofluoric acid must be included in the acid mixture to totally dissolve siliceous material present in sludge.

For a number of environmental monitoring purposes, acid extractable mass fractions of elements are often used rather than total mass fractions. Acid extractable methods do not necessarily result in total decomposition of the sludge. It should be noted that results obtained using acid leach conditions are often depicted in reports as total results. However, reported acid labile or extractable mass fractions of elements are generally lower than total mass fractions. Results are often presented as measured mass fractions in the leachate in comparison to the total or certified mass fractions. The recovery of an element as a percent of total is a function of several factors such as the mode of occurrence in the sample, leach medium, leach time, temperature conditions, and pH of the sample-leach medium mixture [1].

In its monitoring programs, the U.S. Environmental Protection Agency (U.S. EPA) has established a number of leach methods, such as Methods 3015, 3050, and 3051 [2,3] for the determination of acid labile or extractable mass fractions of elements. The New Jersey Department of the Environment (NJDEP) has developed its own leach method, NJDEP 100 for state use [4]. The NJDEP and the U.S. EPA prepared samples of SRM 2781 using the NJDEP 100 method and EPA Methods 3050 and 3051 and analyzed the resulting leachates by flame atomic absorption spectrometry (FAAS) and inductively coupled plasma atomic emission spectrometry (ICP-AES).

Reference values have been established for the acid-leachable mass fractions of several elements in SRM 2781. These values are the means of all results from the different leach measurement methods and combinations used. The reference values are listed in Table 1, along with their uncertainties which are based on 95 % confidence intervals of the means of results. For some of the elements (copper, iron, silver, vanadium), no statistically significant differences were found among results from the two laboratories using three or four combinations of sample preparation and instrumental measurement techniques (NJDEP 100 - FAAS; NJDEP 100 - ICP-AES; EPA 3050 - ICP-AES; EPA 3051 - ICP-AES). For all other elements, statistically significant between-laboratory differences were identified and are included in the stated uncertainties. These differences are small in comparison to control limits for many environmental monitoring programs. Therefore, the reference values are meaningful, despite the between-laboratory differences found.

Reference Values and Uncertainties: The reference values given in Table 1 are not NIST certified but are provided as a reference for U.S. EPA 3050 and 3051, and NJDEP 100 methods. The uncertainties are based on a 95 % confidence interval for the mean and include an allowance for differences between the analytical methods used.

Gaithersburg, MD 20899
Addendum Issue Date: October 25, 1996

Thomas E. Gills, Chief
Standard Reference Material Program

Table 1. Reference Leach Values for SRM 2781

Element	Leachable mass fraction (in mg/kg)			% Leach Recovery*
Aluminum	8 040	±	980	50
Barium	570	±	65	---
Cadmium	11	±	2	86
Calcium	36 440	±	1 830	93
Chromium	143	±	14	71
Copper	601	±	16	96
Iron	24 300	±	2 100	87
Lead	183	±	15	91
Magnesium	4 850	±	290	82
Manganese	745	±	33	---
Nickel	72.3	±	6.3	90
Silver	86.3	±	1.7	88
Vanadium	81.9	±	3.8	---
Zinc	1 120	±	34	88

$$\text{* \% Leach Recovery} = 100 \times \frac{\text{Leach Value}}{\text{Certified or Noncertified Value}}$$

Cooperating Analysts and Laboratories:

S.J. Nagourney; New Jersey Department of the Environment, Trenton, NJ.
J. Birri, K. Peist; U.S. Environmental Protection Agency, Edison, NJ.

REFERENCES

[1] Kane, J.S., Leach Data vs Total: Which is Relevant for SRMs, Fresenius J. Anal. Chem. 352: pp 209-213, (1995).
[2] U.S. EPA 1991 Code of Federal Regulations, Title 40, Part 136, Paragraph 33.
[3] Federal Register 1-13-95 SW-846 update #2, Final.
[4] New Jersey Administrative Code, 1994. N.J.A.C. 7:14-4.

Test Control and Reference Substance Log

Substance trade name or reference #	**Soil: Sandy Loam**	TCR Substance #	**TCR-00065-009**
Substance/chemical name:	**Soil: Sandy Loam**		
Lot/batch #:	**99-2564 TNA-4621**	Received from:	**Agvise**
3M #			
Expiration date:	**08/01/2015**	Amount received (wt. or vol):	**448 g net weight**
Initials:	**LCG**	Date:	**09/14/2000**
Number/size of containers:	**1-500ml (2 of 3)**	Shipper:	
Condition:	**Dried and sieved**	MSDS (y/n)	○ **Y** ● **N**
Retain		Date of Retain	

Purity:	**NA**
Records received:	
Location of synthesis, fabrication, or derivation records:	**NA**
Std Location/Storage:	**container stored ambient in cabinet TCR-CO2. LCG 12/26/00**
Molecular Formula:	
Comments	**weight of container w/cap 66.4g LCG 9/14/00**
Attachment(s)	

USE LOG
Soil: Sandy Loam **Soil: Sandy Loam** **TCR-00065-009**

Gross Wt./Vol. Before withdrawal	Amnt. withdrawn (mass or vol)	Gross wt/vol after withdrawal	Purpose (enter standard number)	Balance ID	Initials	Date
514.81 g	**166.61 g**	**348.20 g**	**E00-1311 PFOS ads/des**	**904**	**CMC**	**01/31/2001**

AGVISE LABORATORIES

Highway 15
P.O. Box 510
Northwood, ND 58267
(701) 587-6010
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email: agvise@polarcomm.com
Homepage: agviselabs.com

May 23, 2001

Mr. Mark Ellefson
3M Corporation

Re Soil Characterization for Agvise South

Soil collected from the site Agvise South has tested as follows:

Percent Sand	58
Percent Silt	22
Percent Clay	20
USDA Textural Class (Hydrometer method)	Sandy Loam
Bulk Density (disturbed) gm/cc	1.05
Cation Exchange Capacity (meq/100 g)	23.3
% Moisture at 1/3 Bar	27.9
Percent Organic Matter	4.8
pH in 1:1 soil:water ratio	7.8
Extractable Iron (ppm)	10.3
Extractable Zinc (ppm)	1.59
Extractable Manganese (ppm)	11.9
Extractable Copper (ppm)	0.24

Base Saturation Data

Cation	Percent	ppm
Calcium	79.5	3700
Magnesium	10.0	280
Sodium	0.8	41
Potassium	2.5	231
Hydrogen	7.2	17

Robert Deutsch
Soil Scientist

AGVISE LABORATORIES
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(701) 587-6010
FAX (701) 587-6013
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AGVISE Soil Characterization Report

Submitted By:	Results Reported To:
BOB DEUTSCH	BOB DEUTSCH
P.O. BOX 316	P.O. BOX 316
111 1ST AVENUE	111 1ST AVENUE
NORTHWOOD ND 58267	NORTHWOOD ND 58267

Protocol/Study No = AGVISE SOUTH
Specimen ID =
Purchase Order =
Trial or Test No = Depth =

Date Received = 9/20/00 AGVISE Lab No = 27,767
Date Reported = 9/22/00 AGVISE Ref No = 6,633,357

Percent Sand	58
Percent Silt	22
Percent Clay	20
USDA Textural Class (hydrometer method)	SANDY LOAM
% Organic Matter (Walkley-Black)	4.9
pH (Water)	7.8

Mark Ellefson
3M

2 Reports on
Agvise Sandy Loam

651-778-6176

AGVISE Soil Characterization Report

Submitting firm =
Protocol or Study No =
Sample ID. = AGVISE SOUTH
Trial ID. = SANDY LOAM
Date Received = 11-9-00
Date Reported = 12-11-2000

AGVISE Lab No	00- 2464
Percent Sand	58
Percent Silt	22
Percent Clay	20
USDA Textural Class (hydrometer method)	Sandy Loam
Bulk Density (disturbed) gm/cc	1.05
Cation Exchange Capacity (meq/100 g)	23.3
% Moisture at 1/3 Bar	27.9
Percent Organic Matter	4.8
pH in 1:1 soil:water ratio	7.8
Extractable Iron (ppm)	10.3
Extractable Zinc (ppm)	1.59
Extractable Manganese (ppm)	11.9
Extractable Copper (ppm)	0.24

Base Saturation Data

Cation	Percent	ppm
Calcium	79.5	3700
Magnesium	10.0	280
Sodium	0.8	41
Potassium	2.5	231
Hydrogen	7.2	17

These tests were completed in compliance of 40 CFR Part 160.

Robert Deutsch Date
Soil Scientist/Analytical Investigator

Test Control and Reference Substance Log

Substance trade name or reference #	[redacted]	TCR Substance #	TCR-00017-047
Substance/chemical name:	1H, 1H, 2H, 2H-perfluorooctanesulfonic Acid		
Lot/batch #:	Q-75-30	Received from:	SynQuest Labs
3M #	N/A		
Expiration date:		Amount received (wt. or vol):	80 g, 428.04 g gross wt.
Initials:	PMR	Date:	05/15/2000
Number/size of containers:	1/ 250 mL jar	Shipper:	UPS
Condition:	good/ white powder	MSDS (y/n)	● Y ○ N
Retain	0.2762 g	Date of Retain	05/17/2000

Purity:	TBD
Records received:	MSDS
Location of synthesis, fabrication, or derivation records:	SynQuest Labs
Std Location/Storage:	F19, Frozen
Molecular Formula:	C8H5F13O3S
Comments	TN-A-4448, PMR 5/15/00 Standard has been moved to Freezer 19 in room 347 KJD 6/67/00 Standard was stored at room temperature prior to 6/7/00 LAC 12/21/00 3M Transit Number FC-S000-0179-4; CORROSIVE
Attachment(s)	 tcr00017-47msds.pdf

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

Book No. 001
Page No. 03

Standard ID#	Description	Date Prepared	Analyst
01001-03-07	500 mg/L	02/01/2001	CMC

Stock ID#	
TCR-00014-046	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
neat	0.500 g	914	1000 ml	0.01M CaCl2 00001-34-12

Final Conc	Storage Location	Expiration Date
500 mg/L	3rd Floor	08/01/2001

Comments:
Reviewed By: Cindy M. Carlson 02/06/2001

3M Environmental Laboratory

Standards Database

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Single Component Standard Preparation Log

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Page No. 19

Standard ID#	Description	Date Prepared	Analyst
00001-19-01	THPFOS	07/05/2000	KLT

Stock ID#	
TCR-00017-047	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
neat	0.0111 g	1118172181 (914)	25 ml	TN-A-4464 Methanol

Final Conc	Storage Location	Expiration Date
444 ppm	3rd Floor	01/31/2001

Comments:
Added Meoh TN-A per KLT on 1/30/01 OK. Updated Balance ID on 2/16/01 per KLT. OK
Reviewed By: Ognjenka Krupljanin 02/16/2001

3M Environmental Laboratory

Standards Database

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Single Component Standard Preparation Log

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Page No. 24

Standard ID#	Description	Date Prepared	Analyst
00001-24-03	THPFOS	09/13/2000	CMC

Stock ID#	
00001-19-01	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
444 ug/ml	0.5 ml		10 ml	tn-a-4639 Methanol

Final Conc	Storage Location	Expiration Date
22.2 ug/ml	3rd Floor	03/31/2001

Comments:
Reviewed By: Cindy M. Carlson 10/19/2000

3M Environmental Laboratory

SINGLE COMPONENT STANDARD PREPARATION LOG

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Standard ID#	Description	Date Prepared	Analyst	Stock ID#	Conc or Purity	Weight or Volume	Final Volume	Solvent/ TNA#	Final Conc	Storage Location	Exp. Date
00001-25-01	PFBS	9-19-00	CMC	00001-24-13	500mg/L	1.0mL	50mL	MeOH 4639	1mg/L	3rd	10/29/00
00001-2502	FC-4430 working soln.	9-19-00	KLT	00001-24-14	824ug/mL	100uL	10mL	MeOH 4639	10 uL wire in urine 8.24ug/mL	3rd	9/01
00001-2503	FC 4430 working soln	9-19-00	KLT	00001-24-14	824ug/mL	10uL	10mL	MeOH 4639	0.824 ug/mL	3rd	9/01
00001-25-04 (RWW 12/26/00)	M570	9-19-00	RWW	Fluorotech Neat	Neat	0.1033g (1)	100mL	MeOH 4639	1033 ppm	2nd	3/19/01
00001-25-05	PFOS	9/19/00	RWW	Spoon Neat	Neat	0.1011g (2) EF=0.9275	100mL	MeOH 4639	937.7 ppm	2nd	3/19/01
~~00001-2500~~ 00001-25-06	2mM NH_4OAc^-	9-20-00	KLT	TN-1A 4284	neat	0.308g	2L	Milli-Q Temp Resist. 18.2 MΩ	2.00mM	3rd	3/20/01
00001-25-7	LOW LEVEL WATERS MIX	9-21-00	OK	00003-134	1.0c ppm	2.5uL	25mL	MeOH 4639	106 ppb	3rd	12/00
00001-25-8	LOW LEVEL WATERS MIX	9-21-00	OK	00001-25-7	106 ppb	2.5uL	25mL	MeOH 4639	10.6ppb	3rd	12/00
00001-25-9	PFBS	9/21/00	CMC	00001-24-13	500mg/L	1.0mL	500mL	0.01M CaCl2 00001-24-09	1mg/L	3rd	10/26/00
00001-25-10	PFOS	9/22/00	CMC	50-009	neat	50.0mg	100mL	TN-A-4639 Meoh	500mg/L	3rd	3/01
00001-25-10 (2) 11	PFOS	9/22/00	CMC	00001-25-10	500mg/L	1.00mL ~~25.0~~ (2)	25.0mL	TN-A 4639 MeOH	20mg/L	3rd	3/01
00001-25-12	PFBS	9/22/00	CMC	00001-25-01	1.00mg/L	100mL	200mL	0.01M CaCl2 00001-24-09	0.500mg/L	3rd	3/01
00001-25-13	PFOS / PFBS I.S.	9/22/00	CMC	00001-25-11	20mg/L	0.00 ~~10~~ (3) mL	10.0mL	0.500mg/L PFBS, 00001-25-12	0.00mg/L	3rd	3/01
00001-25-14	↓	↓	↓	↓	↓	2.5µL	↓	↓	5µg/L	↓	↓
00001-25-15	↓	↓	↓	↓	↓	5.0µL	↓	↓	10µg/L	↓	↓

(1)(RE) KLT 9-20-00 00001-25-06 (2)(RE) CMC 9/22/00 3. Added unit 5 – 12/15/00 – R WW

Reviewed By: RWW Date: 12/27/00

3M Environmental Laboratory

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Single Component Standard Preparation Log

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Standard ID#	Description	Date Prepared	Analyst
00001-31-10	0.01M CaCl2	11/01/2000	CMC

Stock ID#	
TN-A-4000	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
neat	6.7015g		6.0L	milli-q

Final Conc	Storage Location	Expiration Date
0.01M	3rd Floor	02/08/2001

Comments:
Reviewed By: Ognjenka Krupljanin 11/21/2000

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Single Component Standard Preparation Log

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Standard ID#	Description	Date Prepared	Analyst
00001-31-11	500mg/L PFOS	11/01/2000	CMC

Stock ID#	
TCR-00017-046	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
neat	0.0500g		100ml	00001-31-10 0.01M CaCl2

Final Conc	Storage Location	Expiration Date
500mg/L	3rd Floor	12/06/2000

Comments:
Reviewed By: Ognjenka Krupljanin 05/23/2001

SINGLE COMPONENT STANDARD PREPARATION LOG

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Standard ID#	Description	Date Prepared	Analyst	Stock ID#	Conc or Purity	Weight or Volume	Final Volume	Solvent/ TNA#	Final Conc	Storage Location	Exp. Date
00001-32-01	2mM Amonium Acetate	11/6/00	CMC	TN-A-4284	neat	0.3238g	2L	Milli-Q	2mM	3rd	5/01
00001-32-02	100ppm ① ~~1000~~ppm PFOS	11/8/00	CMC	TCR-00017-46	neat	0.0050g	50mL	00001-31-10 0.01M $CaCl_2$	100ppm ① ~~1000~~ppm	3rd	5/01
00001-32-03	10ppm PFOS	11/8/00	CMC	00001-32-02	100ppm	10.0mL	100.0mL	↓ ② ~~10ppm~~	10ppm	3rd	5/01
~~00001-32-04~~	~~55,225.2 NaF in water (24,961.8F-)~~	11/8/00	KLT	TN-A-2211	neat	13.8062g	250mL	Milli-Q water	~~24,961.8ppm F-~~	3rd	5/01
00001-32-05	~300ppm FC4171 in water	11/8/00	KLT	TCR-00017-59	~10-20% F-	~~22.5mg~~ 25.0mg	100mL water	milli-Q water	250ppm	3rd	5/01
00001-32-06	~2,000ppm FC4432 in water	11/8/00	KLT	TCR-00017-54	~10-20% F-	~~.32~~ 1.995mg	100mL	Milli-Q water			
00001-32-07	100mg/L PFOS	11/13/00	CMC	TCR-00017-46	neat	0.1000g	1000mL	00001-31-10 $CaCl_2$(aq)	100mg/L	3rd	5/01
00001-32-08	1.00mg/L PFOS	11/13/00	CMC	00001-32-07	100mg/L	2.5mL	250mL	00001-31-10 $CaCl_2$(aq)	1.00mg/L	3rd	5/01
00001-32-09	0.10mg/L PFOS	11/13/00	CMC	00001-32-01	100 mg/L	250µL	250mL	00001-31-10 $CaCl_2$(aq)	0.10mg/L	3rd	5/01
00001-32-10	THPFOS	11/13/00	KLT	00001-32-03	1000ppm	0.25ml	500ml	Mixed TNA-4622	Susp.	2nd	5/01
00001-32-11	2mM Ammonium Acetate	11/14/00	KLT	TN-A-2133	Mix	0.3175g	2L	Milli Q	2mM	3rd	5/01
~~00001-32-12~~	~~22.2 ug/mL THPFOS~~ ③	~~11/15/00~~	~~CMC~~	00001-31-02							
00001-32-13	THPFOS	11/15/00	CMC	TCR-00017-47	neat	0.0147g	25.0mL	Mixed TNA-4604	588mg/L (ppm)	3rd	5/01
~~00001-32-14~~ ~~00001-32-13~~ ④	~~25~~ 20ppm THPFOS	11/15/00	CMC	00001-32-13	558 ppm	850µL	25.0mL	↓	20ppm	3rd	5/01
00001-32-15	50ppm PFOS	11/15/00	CMC	00001-32-01	100 ppm	~~10mL~~ 5mL ③	10mL	00001-31-10 0.01M $CaCl_2$	50ppm	3rd	5/01

① Re 11/8/00 CMC
② Re 11/15/00 CMC
③ Std not made CMC 11/15/00
④ Re 11/15/00 CMC

Reviewed By: _____ Date:

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

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Standard ID#	Description	Date Prepared	Analyst
00001-32-03	10ppm PFOS	11/08/2000	CMC

Stock ID#	
00001-32-02	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
100ppm	10.0mL		100.0mL	00001-31-10 0.01M CaCl2

Final Conc	Storage Location	Expiration Date
10ppm	3rd Floor	05/31/2001

Comments:
Reviewed By: Ognjenka Krupljanin 11/21/2000

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

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Page No. 32

Standard ID#	Description	Date Prepared	Analyst
00001-32-07	100mg/L PFOS	11/13/2000	CMC

Stock ID#	
TCR-00017-046	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
neat	0.1000g		1000mL	00001-31-10 0.01M CaCl2

Final Conc	Storage Location	Expiration Date
100mg/L	3rd Floor	05/31/2001

Comments:
Reviewed By: Ognjenka Krupljanin 11/21/2000

3M Environmental Laboratory

Standards Database

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Single Component Standard Preparation Log

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Page No. 32

Standard ID#	Description	Date Prepared	Analyst
00001-32-09	0.10mg/L PFOS	11/13/2000	CMC

Stock ID#	
00001-32-07	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
100mg/L	250uL		250mL	00001-31-10 0.01M CaCl2

Final Conc	Storage Location	Expiration Date
0.10mg/L	3rd Floor	05/31/2001

Comments:
Reviewed By: Ognjenka Krupljanin 11/21/2000

3M Environmental Laboratory

Standards Database

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Single Component Standard Preparation Log

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Standard ID#	Description	Date Prepared	Analyst
00001-32-10	THPFOS	11/13/2000	RWW

Stock ID#	
00001-21-03	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
1000ppm	0.25mL		500mL	TN-A-4672 methanol

Final Conc	Storage Location	Expiration Date
500ppb	2nd Floor	03/30/2001

Comments:
Reviewed By: Ognjenka Krupljanin 11/21/2000

3M Environmental Laboratory

Standards Database

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Single Component Standard Preparation Log

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Standard ID#	Description	Date Prepared	Analyst
00001-32-14	20 ppm THPFOS	11/15/2000	CMC

Stock ID#	
00001-32-13	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
588 ppm	850 ul	--	25 ml	tn-a-4604 Methanol

Final Conc	Storage Location	Expiration Date
20 ppm	3rd Floor	05/15/2001

Comments:
Reviewed By: Ognjenka Krupljanin 11/27/2000

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

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Standard ID#	Description	Date Prepared	Analyst
00001-32-15	50 ppm PFOS	11/15/2000	CMC

Stock ID#	
00001-32-07	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
100 ppm	5 ml		10 ml	00001-31-10 0.01MCaCl2

Final Conc	Storage Location	Expiration Date
50 ppm	3rd Floor	05/15/2001

Comments:
Reviewed By: Ognjenka Krupljanin 11/27/2000

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

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Page No. 33

Standard ID#	Description	Date Prepared	Analyst
00001-33-07	0.01 M CaCl2 (aq)	11/21/2000	CMC

Stock ID#	
tn-a-4000	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
neat	6.7310 g	-	6 L	milli-q

Final Conc	Storage Location	Expiration Date
0.01 M	3rd Floor	03/01/2001

Comments:
Reviewed By: Ognjenka Krupljanin 11/27/2000

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

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Standard ID#	Description	Date Prepared	Analyst
00001-34-12	0.01 M CaCl2 (aq)	12/04/2000	CMC

Stock ID#	
tn-a-4000	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
neat	6.7142 g	NA	6 Liters	milli-q

Final Conc	Storage Location	Expiration Date
0.01 M	3rd Floor	03/14/2001

Comments:
Reviewed By: Cindy M. Carlson 12/14/2000

SINGLE COMPONENT STANDARD PREPARATION LOG

Book No. 00 001
Page No. 34

Standard ID#	Description	Date Prepared	Analyst	Stock ID#	Conc or Purity	Weight or Volume	Final Volume	Solvent/ TNA#	Final Conc	Storage Location	Exp. Date
00001-34-1	Phthalate/Isobenzofuranone	11/28/00	SMG	TNA-2737	neat	0.0128g	25mL	~~DI~~ ① H2O	512 µg/mL	5rd	5/01
00001-34-2	50mg/L PFHS	11/30/00	cmc	SE-036	neat	0.00503g	100.0mL	00001-33-07 0.01M CaCl2 (aq)	50mg/L	3rd	5/01
00001-34-3	50mg/L PFHS	11/30/00	cmc	SE-036	neat	0.00502g	100.0mL	MeOH TNA-4740	50mg/L	3rd	5/01
00001-34-4	50mg/L PFOA	11/30/00	cmc	99030-30	neat	0.00501g	100.0mL	00001-33-07 0.01M CaCl2 (aq)	50mg/L	3rd	5/01
00001-34-5	50mg/L PFOA	11/30/00	cmc	99030-30	neat	0.00503g	100.0mL	MeOH TNA-4740	50mg/L	3rd	5/01
00001-34-6	2mM Ammonium Acetate	12/1/00	cmc	TNA-4284	neat	0.3091g	2L	Milli-Q	2mM	3rd	6/01
00001-31-7	2mM Ammonium Acetate	12/1/00	cmc	TNA-4284	neat	0.3100g	2L	Milli-Q	2mM	3rd	6/01
00001-34-8	Ethyl Acetate Stock	12/1/00	DLS	TNA-2513	neat	0.1036g	10mL	Milli-Q	10,360 mg/mL	3rd	6/01
00001 34-9	EtOAc Std-1	↓	↓	00001-34-8	10,360 mg/mL	0.25mL	25mL	↓	104 mg/mL	↓	↓
00001 34-10	EtOAc Std-2	↓	↓	↓	↓	0.50mL	↓	↓	208 mg/mL	↓	↓
00001 34-11	EtOAc Std-3	↓	↓	↓	↓	1.00mL	↓	↓	420 mg/mL	↓	↓
00001-34-12	0.01 M $CaCl_2$ (aq)	12/4/00	cmc	TNA-4000	neat	6.7142g	6L	milli Q	0.01 M	3rd	3/14/01
00001-31-13	50mg/L FOSA (aq)	12/5/00	cmc	TCR-99131-38	neat	0.00501g	100mL	00001-34-12 0.01 M $CaCl_2$ (aq)	50mg/L	3rd	6/01
00001-34-14	50mg/L FOSA	12/5/00	cmc	TCR-99131-38	neat	0.00503g	100mL	MeOH ② TNA ~~4740~~	50mg/L	3rd	6/01
00001-34-15	50mg/L Et-FOSE	12/5/00	cmc	SE-035	neat	0.00502g	100mL	MeOH TNA-4740	50mg/L	3rd	6/01

③ (P) Milli Q H2O. 11/28/00 SMG

Reviewed By: _____ Date: ②(R) 4740 cmc 12/5/00

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

Book No. 001
Page No. 02

Standard ID#	Description	Date Prepared	Analyst
01001-02-01	20 mg/L THPFOS IS	01/08/2001	CMC

Stock ID#	
00001-32-13	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
588 mg/L	850 ul	NA	25 ml	TN-A-4715 Methanol

Final Conc	Storage Location	Expiration Date
20 mg/L	3rd Floor	05/08/2001

Comments:
Reviewed By: Cindy M. Carlson 02/06/2001

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

Book No. 001
Page No. 02

Standard ID#	Description	Date Prepared	Analyst
01001-02-02	PFOS Stock	01/09/2001	MLA

Stock ID#	
TCR-00017-046	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
neat	0.1278 g	914	10 ml	tn-a-4755 Methanol

Final Conc	Storage Location	Expiration Date
12780 ug/ml	3rd Floor	01/09/2002

Comments:
Reviewed By: Cindy M. Carlson 02/06/2001

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

Book No. 001
Page No. 02

Standard ID#	Description	Date Prepared	Analyst
01001-02-03	THPFOS Stock	01/09/2001	MLA

Stock ID#	
TCR-00017-047	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
neat	0.0053 g	914	10 ml	TN-A-4755 Methanol

Final Conc	Storage Location	Expiration Date
530 ug/ml	3rd Floor	01/09/2002

Comments:
Reviewed By: Cindy M. Carlson 02/06/2001

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

Book No. 001
Page No. 02

Standard ID#	Description	Date Prepared	Analyst
01001-02-04	PFBS Stock	01/09/2001	MLA

Stock ID#	
TCR-99030-023	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
neat	0.0127 g	914	10 ml	TN-A-4755 Methanol

Final Conc	Storage Location	Expiration Date
1270 ug/ml	3rd Floor	01/09/2002

Comments:
Reviewed By: Cindy M. Carlson 02/06/2001

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

Book No. 001
Page No. 02

Standard ID#	Description	Date Prepared	Analyst
01001-02-05	25 ppm (ug/ml) PFOS	01/09/2001	MLA

Stock ID#	
01001-02-02	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
12780 ug/ml	49 ul	NA	25 ml	TN-A-4755 Methanol

Final Conc	Storage Location	Expiration Date
25.048 ug/ml	3rd Floor	01/09/2002

Comments:
Reviewed By: Cindy M. Carlson 02/06/2001

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

Book No. 001
Page No. 03

Standard ID#	Description	Date Prepared	Analyst
01001-03-08	50 mg/L PFOS	02/01/2001	CMC

Stock ID#	
01001-03-07	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
500 mg/L	10 ml	NA	100 ml	0.01 M CaCl2 00001-34-12

Final Conc	Storage Location	Expiration Date
50 mg/L	3rd Floor	08/01/2001

Comments:
Reviewed By: Cindy M. Carlson 02/06/2001

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

Book No. 001
Page No. 03

Standard ID#	Description	Date Prepared	Analyst
01001-03-15	0.01 M CaCl2	02/12/2001	CMC

Stock ID#	
TN-A-4000	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
neat	6.6723g	914	6 liters	milli-q

Final Conc	Storage Location	Expiration Date
0.01 M	3rd Floor	08/12/2001

Comments:
Reviewed By: Cindy M. Carlson 02/28/2001

3M Environmental Laboratory

Standards Database

SCSPL

Single Component Standard Preparation Log

Book No. 001
Page No. 04

Standard ID#	Description	Date Prepared	Analyst
01001-04-05	10 mg/L THPFOS IS	02/21/2001	CMC

Stock ID#	
00001-32-13	

Conc or Purity	Weight or Volume	Balance ID	Final Volume	TN-A Solvent
588 mg/L	850 ul	NA	50 ml	TN-A-4755 Methanol

Final Conc	Storage Location	Expiration Date
10 mg/L	3rd Floor	05/31/2001

Comments:
Reviewed By: Cindy M. Carlson 02/28/2001

MULTI-LEVEL STANDARD PREPARATION LOG

Book No. 00 002
Page No. 104

cmc 5/10/01

Description: Adsorb/Desorb Supermix Curve
Date Prepared: 12/12/00
Prepared By: cmc
Storage Location: 3rd
Expiration Date: 6/01

Solvent: MeOH
Source: EM Science
Lot #: —
3M Trace #: JNA-4740
Expiration Date: 2005

	Standard ID #	00003-104-01	-02	-03	-04	-05	-06	-07	-08
	Description								
Component Standards		**Amount of Component Standard Added**							
Description	ID # / Conc / Expiration Date	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7	Std 8
10ppm Supermix ②	00003-147 / 10ppm / 6/01	0 µL	6.3 µL	12.5 µL	25 µL	62.5 µL	100 µL	125 µL	187.5 µL
588ppm THPFOS	00001-32-13 / 588ppm / 5/01	10.6 µL							→
	Final Volume	25 mL							→
	Final Concentration	~~10 ppm~~ 0 ppb ①	2.5 ppb	5.0 ppb	10 ppb	25 ppb	40 ppb	50 ppb	75 ppb

cmc 12/12/00

① (Rep) cmc 12/12/00
② 10ppm each of: PFOS, Et-FOSE, PFOA, PFHS, FOSA cmc 12/12/00

Reviewed By: _____ Date: _____

MULTI-LEVEL PREPARATION LOG

Book No. 01 003
Page No. 7

Description: PFOS Curve
Date Prepared: 09 Jan 01
Prepared By: MH
Storage Location: 3rd
Expiration Date: 09 Jan 02

Solvent: Methanol
3M Trace #: IN-A-4785

Standard ID #				01 003-7-1	01 003-7-2	01 003-7-3	01 003-7-4	01 003-7-5	01 003-7-6	01 003-7-7	01 003-7-8
Description				0 ppm	2.5	5	10	25	40	50	75
Component Standards				Amount of Component Standard Added							
Description	ID #	Conc	Expiration Date	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7	Std 8
PFOS	010001-2-5	25.05 ug/mL	1/02	0 uL	2.5 uL	5 uL	10 uL	25 uL	40 uL	50 uL	75 uL
THPFOS	01001-2-3	510 ug/mL	1/02	12 uL	12 uL	12 uL	12 uL	12 uL	12 uL	12 uL	12 uL
PFBS	01001-2-4	1270 ug/mL	1/02	5 uL	5 uL	5 uL	5 uL	5 uL	5 uL	5 uL	5 uL
				MM							
Final Volume				25 mL	25 mL	25 mL	25 mL	25 mL	25 mL	25 mL	25 mL
Final Concentration				0	2.5	5	10	25	40	50	75

Standard ID #				01 003-7-9	01 003-7-10	01 003-7-11	01 003-7-12	01 003-7-13	01 003-7-14	01 003-7-15	01 003-7-16
Description				100	250	400	500	1000			
Component Standards				Amount of Component Standard Added							
Description	ID #	Conc	Expiration Date	Std 9	Std 10	Std 11	Std 12	Std 13	Std 14	Std 15	Std 16
PFOS	010001-2-5	25.05 ug/mL	1/02	100 uL	500 uL	400 uL	500 uL	1000 uL			
THPFOS	01001-2-3	530 ug/mL	1/02	12 uL	24 uL	12 uL	12 uL	12 uL	MH		
PFBS	01001-2-4	1270 ug/mL	1/02	5 uL	10 uL	5 uL	5 uL	5 uL			
				MM							
Final Volume				25 mL	50 mL	25 mL	25 mL	25 mL			
Final Concentration				100	250	400	500	1000			

Exact concentration of every point of every analyte

Prep date: 09Jan01
Analyst: MU
Type of the curve: PFOS Stnd Curve
Target analytes: PFOS, THPFOS(IS) & PFBS(IS)

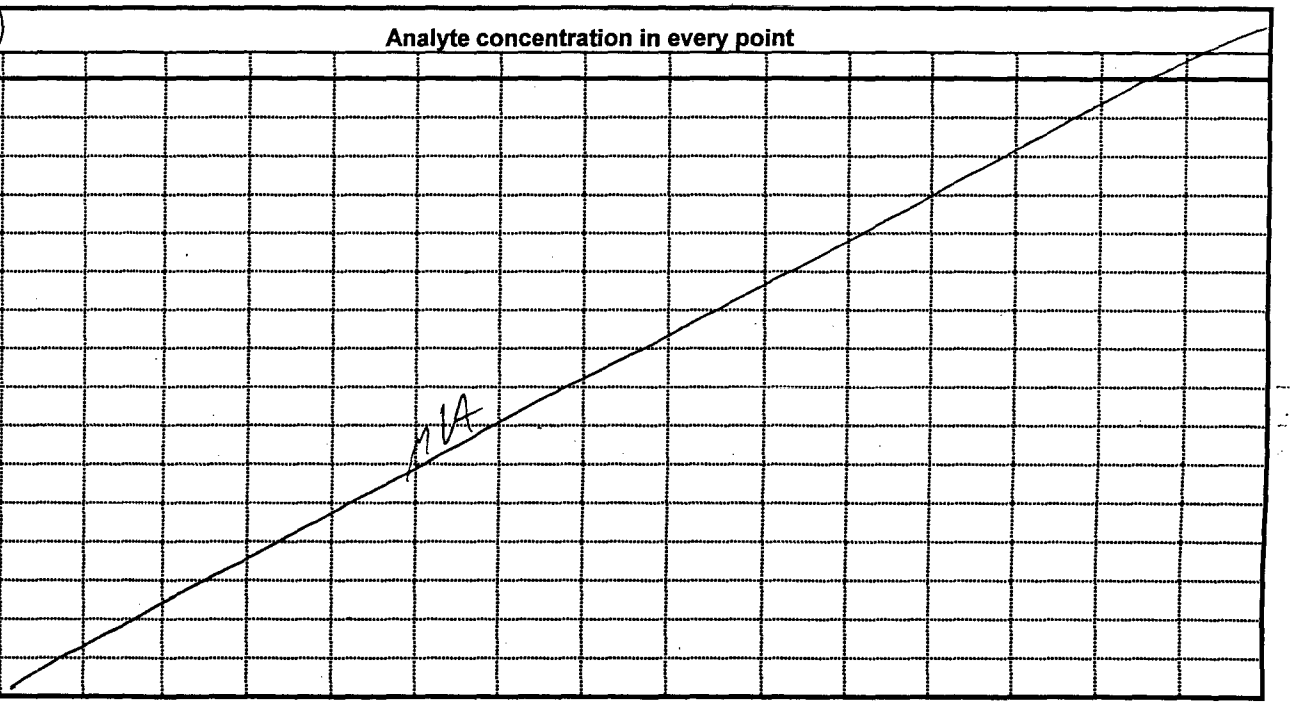
Book No: 01 003
Page No: 7

Solvent & TN-A #: MeOH, TN-A-4755
Final Volume of each point: 25mL (50mL for the 250 ppm curve point)

Standard mix used for preparing the curve: 01001-2-5

Curve point number	Amount of mix used	(ng/mL or ppb) PFOS
01 003-7-1	0	0
01 003-7-2	2.5	2.51
01 003-7-3	5	5.01
01 003-7-4	10	10.02
01 003-7-5	25	25.05
01 003-7-6	40	40.08
01 003-7-7	50	50.10
01 003-7-8	75	75.15
01 003-7-9	100	100.20
01 003-7-10	250	250.50
01 003-7-11	400	400.80
01 003-7-12	500	501.00
01 003-7-13	1000	1002.00
01 003-7-14		in ng/mL (ppb)
01 003-7-15		
01 003-7-16		

Analyte concentration in every point



Internal Standards	THPFOS	PFBS	
standard concentration	5000 ng/mL	12704 ng/mL	N/A
amount used	12 uL	5 uL	
concentration in curve	.2544 ng/mL	.2540 ng/mL	

Same amount of internal standard used in all points, leading to same concentration in every point.

MULTI-COMPONENT STANDARD PREPARATION LOG

Book No. 00 003
Page No. 147

Description: PFOS/PFOA/PF HS/FOSA/Et-FOSE Supermix
Solvent: MeOH
Date Prepared: 12/12/00
Source: EM Science
Prepared By: cmc
Lot #:
Storage Location: 3rd
3M Trace #: TNA-4740
Expiration Date: 6/01
Expiration Date: 2005

Standard ID # 00003 - 147

Component Standard						
Description	ID #	Conc. or Purity	Expiration Date	Weight or Volume	Corr. Weight	Final Conc.
50ppm PFHS in MeOH	00001-34-03	50ppm	5/01	10 mL		10ppm
50ppm Et-FOSE in MeOH	00001-34-15	50ppm	6/01	10 mL		10ppm
50ppm FOSA in MeOH	00001-34-14	50ppm	6/01	10 mL		10ppm
50ppm PFOA in MeOH	00001-34-05	50ppm	5/01	10 mL		10ppm
500ppm PFOS in MeOH	00001-25-10	500ppm	3/01	1.0 mL		10ppm

ET&S
Chemical Inventory System

Chemical Status	○ Available ● Discarded
Trace #:	TN-A-4451
Chemical Sort Prefix:	
Chemical Name:	methanol
CAS/ID #:	67-56-1
Manufacturer:	EM
CAT/Study #:	MX0475-1
Lot #:	40104
Size:	4L
Qty Recorded:	12
Date Recorded:	5/17/00
Date Expired:	2005
Storage Requirments:	Flammable
Chemical Hazard Class	3

ET&S
Chemical Inventory System

Chemical Status	● Available ○ Discarded
Trace #:	TN-A-4715
Chemical Sort Prefix:	
Chemical Name:	Methanol
CAS/ID #:	67-56-1
Manufacturer:	EM
CAT/Study #:	MX0475-1
Lot #:	40276
Size:	4L
Qty Recorded:	12
Date Recorded:	11/10/00
Date Expired:	11/10/05
Storage Requirments:	Flammable
Chemical Hazard Class	3

ET&S
Chemical Inventory System

Chemical Status	● Available ○ Discarded
Trace #:	TN-A-4740
Chemical Sort Prefix:	
Chemical Name:	methanol
CAS/ID #:	67-56-1
Manufacturer:	EM
CAT/Study #:	MX0475-1
Lot #:	40276
Size:	4L
Qty Recorded:	12
Date Recorded:	11/27/00
Date Expired:	11/27/05
Storage Requirments:	flammable
Chemical Hazard Class	3

ET&S
Chemical Inventory System

Chemical Status	● Available ○ Discarded
Trace #:	TN-A-4755
Chemical Sort Prefix:	
Chemical Name:	Methanol
CAS/ID #:	67-56-1
Manufacturer:	EM
CAT/Study #:	MX0475-1
Lot #:	
Size:	4L
Qty Recorded:	12
Date Recorded:	12/11/00
Date Expired:	12/11/05
Storage Requirments:	flammable
Chemical Hazard Class	3

Collection Information

Site Identification Don Uglem Loam
Sample ID AGVISE Lab# 00-2404
Geographical Reference Latitude: 47°44' Longitude: -97°48'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) Native Prairie
Depth of Sampling 0-6"
Collected by Gavin Pollert

****

Site Identification K. Broeren Clay Loam
Sample ID AGVISE Lab# 00-2405
Geographical Reference Latitude: 47°42' Longitude: -97°40'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) Agricultural
Depth of Sampling 0-6"
Collected by Gavin Pollert

****

Site Identification Goose River Sediment
Sample ID 00-2406 AGVISE Lab#
Geographical Reference Latitude: 47°45' Longitude: -97°37'
Date of Sampling 10-19-00
Use Pattern (e.g. agricultural, forest, etc.) NA (River Bottom)
Depth of Sampling 0-6"
Collected by Art McNeil

****

Site Identification Kittson Co. Clay
Sample ID AGVISE Lab# 00-2407
Geographical Reference Latitude: 48°62' Longitude: -96°89'
Date of Sampling 10-21-00
Use Pattern (e.g. agricultural, forest, etc.) Agricultural
Depth of Sampling 0-6"
Collected by John Lee

Samples were collected, dried on trays and ground using a ~~mortar~~ grinder with a 1mm sieve.
11-2-00 KM

11-2-00 KM

AGVISE LABORATORIES

Highway 15
P.O. Box 510
Northwood, ND 58267
(701) 587-6010
FAX (701) 587-6013
email: agvise@polarcomm.com
Homepage: agviselabs.com

AGVISE Soil Characterization Report

Submitting firm = 3M
Protocol or Study No = NA
Sample ID. = KITTSON CO CLAY 0-6
Trial ID. = NA
Date Received = 10-23-00
Date Reported = 11-02-2000

AGVISE Lab No	00- 2407
Percent Sand	16
Percent Silt	22
Percent Clay	62
USDA Textural Class (hydrometer method)	Clay
Cation Exchange Capacity (meq/100 g)	54.5
Percent Organic Carbon	2.6
Percent Organic Matter	4.5
pH in 0.01 M CaCl2	7.2
Total Nitrogen (%)	0.223

Base Saturation Data

Cation	Percent	ppm
Calcium	54.2	5900
Magnesium	34.6	2260
Sodium	0.9	110
Potassium	3.6	771
Hydrogen	6.8	37

These tests were completed in compliance of 40 CFR Part 160.

Robert Deutsch — 11-2-00
Soil Scientist/Analytical Investigator — Date

AGVISE LABORATORIES
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Homepage: agviselabs.com

AGVISE Soil Characterization Report

Submitting firm = 3M
Protocol or Study No = NA
Sample ID. = DON UGLEM-LOAM 0-6
Trial ID. = NA
Date Received = 10-23-00
Date Reported = 10-31-2000

AGVISE Lab No	00- 2404
Percent Sand	39
Percent Silt	50
Percent Clay	11
USDA Textural Class (hydrometer method)	Loam
Cation Exchange Capacity (meq/100 g)	23.9
Percent Organic Carbon	4.9
Percent Organic Matter	8.4
pH in 0.01 M CaCl2	7.4
Total Nitrogen (%)	0.358

Base Saturation Data

Cation	Percent	ppm
Calcium	52.2	2500
Magnesium	20.9	600
Sodium	0.7	38
Potassium	3.5	324
Hydrogen	22.7	54

These tests were completed in compliance of 40 CFR Part 160.

Julie M. Johnson
Julie M. Johnson
Analytical Investigator

10-31-00
Date

AGVISE LABORATORIES

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Homepage: agviselabs.com

AGVISE Soil Characterization Report

Submitting firm = 3M
Protocol or Study No = NA
Sample ID. = K BROEREN-CLAY LOAM 0-6
Trial ID. = NA
Date Received = 10-23-00
Date Reported = 10-31-2000

AGVISE Lab No	00- 2405
Percent Sand	21
Percent Silt	46
Percent Clay	33
USDA Textural Class (hydrometer method)	Clay Loam
Cation Exchange Capacity (meq/100 g)	24.7
Percent Organic Carbon	2.6
Percent Organic Matter	4.4
pH in 0.01 M CaCl2	6.0
Total Nitrogen (%)	0.216

Base Saturation Data

Cation	Percent	ppm
Calcium	52.7	2600
Magnesium	24.3	720
Sodium	0.7	39
Potassium	5.8	557
Hydrogen	16.5	41

These tests were completed in compliance of 40 CFR Part 160.

Julie M. Johnson
Julie M. Johnson
Analytical Investigator

10-31-00
Date

BACK TO MAIN

AGVISE LABORATORIES

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May 23, 2001

Mr. Mark Ellefson
3M Corporation

Re Soil Characterization for Agvise South

Soil collected from the site Agvise South has tested as follows:

Percent Sand	58
Percent Silt	22
Percent Clay	20
USDA Textural Class (Hydrometer method)	Sandy Loam
Bulk Density (disturbed) gm/cc	1.05
Cation Exchange Capacity (meq/100 g)	23.3
% Moisture at 1/3 Bar	27.9
Percent Organic Matter	4.8
pH in 1:1 soil:water ratio	7.8
Extractable Iron (ppm)	10.3
Extractable Zinc (ppm)	1.59
Extractable Manganese (ppm)	11.9
Extractable Copper (ppm)	0.24

$\%\,OCC = \frac{4.8}{1.72} = 2.8\%$

Base Saturation Data

Cation	Percent	ppm
Calcium	79.5	3700
Magnesium	10.0	280
Sodium	0.8	41
Potassium	2.5	231
Hydrogen	7.2	17

Robert Deutsch
Soil Scientist

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(701) 587-6010
FAX (701) 587-6013
email: agvise@polarcomm.com
Homepage: agviselabs.com

AGVISE Soil Characterization Report

Submitting firm = 3M
Protocol or Study No = NA
Sample ID. = GOOSE RIVER-SEDIMENT 0-6
Trial ID. = NA
Date Received = 10-23-00
Date Reported = 10-31-2000

AGVISE Lab No	00- 2406
Percent Sand	39
Percent Silt	42
Percent Clay	19
USDA Textural Class (hydrometer method)	Loam
Cation Exchange Capacity (meq/100 g)	17.5
Percent Organic Carbon	1.3
Percent Organic Matter	2.3
pH in 0.01 M CaCl2	7.7
Total Nitrogen (%)	0.101

Base Saturation Data

Cation	Percent	ppm
Calcium	57.2	2000
Magnesium	28.6	600
Sodium	4.8	193
Potassium	3.4	232
Hydrogen	6.0	10

These tests were completed in compliance of 40 CFR Part 160.

Julie M. Johnson
Julie M. Johnson
Analytical Investigator

10-31-00
Date

BACK TO MAIN

National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material® 2781

Domestic Sludge

This Standard Reference Material (SRM) is intended primarily for use in the evaluation of methods used for the analysis of sludges and other materials of a similar matrix. SRM 2781 is a dried and pulverized domestic sludge. A unit of SRM 2781 consists of 40 g of the dried material.

Certified Values: The certified values for 10 elements are listed in Table 1 and are based on concordant results from two or more analytical methods.

Analytical methods used for the characterization of this SRM are given in Table 3. All values are reported as mass fractions [1], on a dry mass basis and are based on measurements using a sample mass of at least 100 mg.

Noncertified Values: Noncertified values for eleven additional elements are listed in Table 2 and were derived from a combination of results from NIST and collaborating laboratories. These results may have sources of bias yet to be investigated and do not meet NIST criteria for certification.

Expiration of Certification: This certification is valid for five years from the date of shipment from NIST. However, the certification will be nullified if the SRM is contaminated or modified. Should any of the values change before the expiration of the certification, purchasers will be notified by NIST. Return of the attached registration card will facilitate notification.

Stability: This material is considered to be stable; however, its stability has not been rigorously assessed. NIST will continuously monitor this material and report any substantive changes in certification to the purchaser.

Use: A minimum sample mass of 100 mg (dry mass - see Instructions for Drying) should be used and sample preparation procedures should be designed to effect complete dissolution for analytical determinations to be related to the certified values provided.

Instructions for Drying: When nonvolatile elements are to be determined, samples should be vacuum dried at room temperature for 24 h or oven dried for 2 h at 110 °C. Volatile elements (e.g., arsenic, mercury, and selenium) should be determined on samples as received; separate samples should be dried according to these instructions to obtain a correction factor for moisture. Moisture corrections are then made to measurement values before comparing them to the certified values. [Note that the mass loss on drying at the time of certification was found to be in the range of 4.7 % to 6.6 % when using the recommended drying procedures.]

Statistical consultation was provided by L.M. Gill of the NIST Statistical Engineering Division.

The overall direction and coordination of the analyses were under the chairmanship of J.D. Fassett of the NIST Analytical Chemistry Division.

The technical and support aspects involved in the original preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program by J.S. Kane. Revision of this certificate was coordinated through the Standard Reference Materials Program by B.S. MacDonald.

Gaithersburg, MD 20899
Certificate Issue Date: October 25, 1996
(Revision of certificate dated 6-22-95 to include addendum)

Thomas E. Gills, Chief
Standard Reference Materials Program

Source and Preparation of Material: The U.S. Geological Survey (USGS), under contract to NIST, obtained partially dehydrated sewage cake material from the Metropolitan Denver Sewage Disposal District No. 1. The material (approximately 182 kg) was placed in plastic-lined drums and transported to the USGS facilities in Lakewood, CO for processing. It was dried at ambient temperature in a forced air chamber, ground to pass a 74 m. (200 mesh) sieve, blended for 24 h to assure homogeneity of the pulverized material after which test samples were taken from the blender for preliminary homogeneity analyses. The material was then radiation sterilized. The sterilized material was shipped in bulk to NIST, where the material was bottled in 40 g units after reblending for 4 h.

Analysis: The homogeneity was assessed at USGS on 10 replicate samples of bulk material for over 40 elements using x-ray fluorescence (XRF) and/or inductively coupled plasma atomic emission spectrometry (ICP-AES). Homogeneity was further assessed during certification analysis; at sample sizes of 100 mg or greater. No sample-to-sample variations in excess of those expected from the analytical measurements were detected.

Certified Values and Uncertainties: The certified values are the means of the results from two or more independent analytical methods as described by Schiller and Eberhardt [2]. The uncertainty is based on a 95 % confidence interval for the true value, and includes an allowance for differences between the analytical methods used [3].

Table 1. Certified Mass Fractions

Element	Mass Fraction (in mg/kg)	Element	Mass Fraction (in %)
Arsenic	7.82 ± 0.28	Nitrogen	4.78 ± 0.11
Cadmium	12.78 ± 0.72		
Copper	627.4 ± 13.5		
Lead	202.1 ± 6.5		
Mercury	3.64 ± 0.25		
Molybdenum	46.7 ± 3.2		
Nickel	80.2 ± 2.3		
Selenium	16.0 ± 1.6		
Zinc	1273 ± 53		

Noncertified Values and Uncertainties: The noncertified values are the means of the results from two or more independent analytical methods as described by Schiller and Eberhardt [2]. The uncertainty is based on a 95 % confidence interval for the mean, and includes an allowance for differences between the analytical methods used [3]. As the accuracy of the measurements could not be assessed from the data, the uncertainty associated with a noncertified value may fail to include all sources of uncertainties and may represent only a measure of the precision of the measurement methods.

Table 2. Noncertified Mass Fractions

Element	Mass Fraction (in mg/kg)	Element	Mass Fraction (in %)
Chromium	202 ± 9	Aluminum	1.6 ± 0.1
Silver	98 ± 8	Calcium	3.9 ± 0.1
		Iron	2.8 ± 0.1
		Magnesium	0.59 ± 0.04
		Phosphorus	2.42 ± 0.09
		Potassium	0.49 ± 0.03
		Silicon	5.1 ± 0.2
		Sodium	0.21 ± 0.02
		Titanium	0.32 ± 0.03

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Addendum to Standard Reference Material® 2781

Domestic Sludge

Leachable Mass Fractions Using U.S. EPA and NJDEP Methods for Flame Atomic Absorption Spectrometry and Inductively Coupled Plasma Atomic Emission Spectrometry

The certified concentration values of constituent elements in this certificate are given as total mass fractions. To obtain total mass fractions, either subsamples of the SRM must be completely decomposed, or the sample must be analyzed directly in its solid form. For mixed acid dissolution, hydrofluoric acid must be included in the acid mixture to totally dissolve siliceous material present in sludge.

For a number of environmental monitoring purposes, acid extractable mass fractions of elements are often used rather than total mass fractions. Acid extractable methods do not necessarily result in total decomposition of the sludge. It should be noted that results obtained using acid leach conditions are often depicted in reports as total results. However, reported acid labile or extractable mass fractions of elements are generally lower than total mass fractions. Results are often presented as measured mass fractions in the leachate in comparison to the total or certified mass fractions. The recovery of an element as a percent of total is a function of several factors such as the mode of occurrence in the sample, leach medium, leach time, temperature conditions, and pH of the sample-leach medium mixture [1].

In its monitoring programs, the U.S. Environmental Protection Agency (U.S. EPA) has established a number of leach methods, such as Methods 3015, 3050, and 3051 [2,3] for the determination of acid labile or extractable mass fractions of elements. The New Jersey Department of the Environment (NJDEP) has developed its own leach method, NJDEP 100 for state use [4]. The NJDEP and the U.S. EPA prepared samples of SRM 2781 using the NJDEP 100 method and EPA Methods 3050 and 3051 and analyzed the resulting leachates by flame atomic absorption spectrometry (FAAS) and inductively coupled plasma atomic emission spectrometry (ICP-AES).

Reference values have been established for the acid-leachable mass fractions of several elements in SRM 2781. These values are the means of all results from the different leach measurement methods and combinations used. The reference values are listed in Table 1, along with their uncertainties which are based on 95 % confidence intervals of the means of results. For some of the elements (copper, iron, silver, vanadium), no statistically significant differences were found among results from the two laboratories using three or four combinations of sample preparation and instrumental measurement techniques (NJDEP 100 - FAAS; NJDEP 100 - ICP-AES; EPA 3050 - ICP-AES; EPA 3051 - ICP-AES). For all other elements, statistically significant between-laboratory differences were identified and are included in the stated uncertainties. These differences are small in comparison to control limits for many environmental monitoring programs. Therefore, the reference values are meaningful, despite the between-laboratory differences found.

Reference Values and Uncertainties: The reference values given in Table 1 are not NIST certified but are provided as a reference for U.S. EPA 3050 and 3051, and NJDEP 100 methods. The uncertainties are based on a 95 % confidence interval for the mean and include an allowance for differences between the analytical methods used.

Gaithersburg, MD 20899
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Table 1. Reference Leach Values for SRM 2781

Element	Leachable mass fraction (in mg/kg)			% Leach Recovery*
Aluminum	8 040	±	980	50
Barium	570	±	65	---
Cadmium	11	±	2	86
Calcium	36 440	±	1 830	93
Chromium	143	±	14	71
Copper	601	±	16	96
Iron	24 300	±	2 100	87
Lead	183	±	15	91
Magnesium	4 850	±	290	82
Manganese	745	±	33	---
Nickel	72.3	±	6.3	90
Silver	86.3	±	1.7	88
Vanadium	81.9	±	3.8	---
Zinc	1 120	±	34	88

* % Leach Recovery = $100 \times \frac{\text{Leach Value}}{\text{Certified or Noncertified Value}}$

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[1] Kane, J.S., Leach Data vs Total: Which is Relevant for SRMs, Fresenius J. Anal. Chem. 352: pp 209-213, (1995).
[2] U.S. EPA 1991 Code of Federal Regulations, Title 40, Part 136, Paragraph 33.
[3] Federal Register 1-13-95 SW-846 update #2, Final.
[4] New Jersey Administrative Code, 1994. N.J.A.C. 7:14-4.

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Table 3. Methods used for the Analysis of SRM 2781*

Aluminum	**INAA, ICP-AES, XRF**
Arsenic	**RNAA, Hyd. AAS,** INAA
Cadmium	**ID-ICPMS, PGAA, RNAA,** INAA, **TXRF**
Calcium	**INAA, TXRF, ICP-AES, XRF**
Chromium	**INAA, TXRF, ICP-AES**
Copper	**ID-ICPMS, RNAA,** INAA, **TXRF**
Iron	**INAA, TXRF, ICP-AES, XRF**
Lead	**ICP-AES, ID-ICPMS,** TXRF
Magnesium	**INAA, ICP-AES, XRF**
Mercury	**FIA-CV-AAS, RNAA,** INAA
Molybdenum	**ID-ICPMS, ICP-AES, TXRF,** INAA
Nickel	**ICP-AES, ID-ICPMS,** INAA, TXRF
Nitrogen	**Kjeldahl, PGAA**
Phosphorus	Color, ICP-AES, XRF
Potassium	**INAA, TXRF, ICP-AES**
Selenium	**Hyd. AAS, RNAA, INAA, TXRF**
Silicon	**XRF**
Silver	**RNAA,** INAA, TXRF
Sodium	**INAA, ICP-AES, XRF**
Titanium	**INAA, TXRF, XRF**
Zinc	**ICP-AES, ID-ICPMS, INAA, TXRF**

*Methods used for establishment of certified values are shown in bold-face type; methods used for information only values or to corroborate certified values are not in bold.

Methods

FIA-CV-AAS	Flow injection analysis cold vapor atomic absorption spectrometry
Hyd. AAS	Hydride generation atomic absorption spectrometry
ICP-AES	Inductively coupled plasma atomic emission spectrometry
ID-ICPMS	Isotope dilution inductively coupled plasma mass spectrometry
INAA	Instrumental neutron activation analysis
PGAA	Prompt gamma activation analysis
RNAA	Radiochemical neutron activation analysis
TXRF	Total reflectance x-ray fluorescence
XRF	Wavelength dispersive x-ray fluorescence

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[2] Schiller, S.B. and Eberhardt, K.R., Combining Data from Independent Chemical Analysis Methods, **Spectrochimical Acta, 46B** (12), pp 1607-1613, (1991).

[3] *Guide to the Expression of Uncertainty in Measurement*, ISBN 92-67-10188-9, 1st Ed. ISO, Geneva, Switzerland, (1993): see also Taylor, B.N. and Kuyatt, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note, 1297, U.S. Government Printing Office, Washington D.C., (1994).