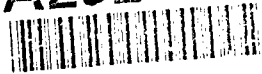


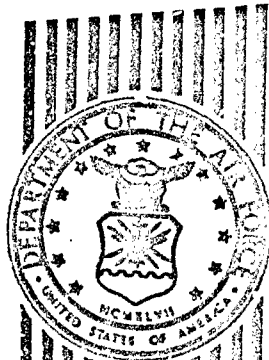
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VOL III - PART 4



**FULL-SCALE INCINERATION SYSTEM
DEMONSTRATION VERIFICATION TEST
BURNS AT THE NAVAL BATTALION CON-
STRUCTION CENTER, GULFPORT, MISS-
ISSIPPI - VOL III: TREATABILITY TESTS
PART 4**

D. J. HALEY, R. W. THOMAS, D. B. DERRINGTON, JR.

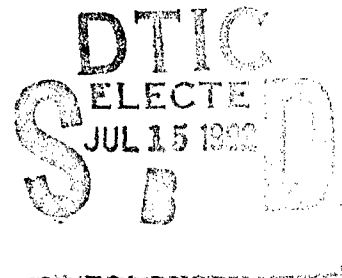
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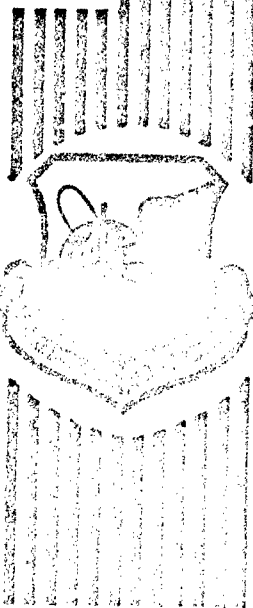
FINAL REPORT

SEPTEMBER 1986 - FEBRUARY 1989

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19. ABSTRACT (Continue on reverse if necessary and identify by block number) This technical report is divided into eight volumes. This portion of the report comprises Volume II, which is further subdivided into 5 parts, including the appendixes. This volume describes the verification test burns conducted on a 100 ton/day mobile incinerator that was used to process soil contamination with the constituents of Herbicide Orange, namely 2,4,5-T, 2,4-D, and trace quantities of dioxin. The demonstration was conducted at the Naval Construction Battalion Center in Gulfport, Mississippi. This volume provides specific details concerning the planning efforts and data results from the test burns. Project managers and field engineers responsible for planning and implementation of hazardous waste remedial actions should find the information contained herein very useful.					
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PREFACE

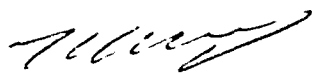
This report was prepared by EG&G Idaho, Inc., P. O. Box 1625, Idaho Falls, ID 83415, under Job Order Number (JON) 2103 9027, for the Air Force Engineering and Services Center, Engineering and Services Laboratory, Tyndall Air Force Base, Florida 32403-6001.

This report summarizes work done between September 1986 and December 1986. Major Terry Stoddart and Major Michael L. Shelley were the AFESC/RDVS Project Officers.

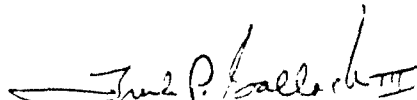
The information contained in this volume describes the events, the planning efforts, and the data results of a test burn conducted on a 100 ton/day mobile incinerator that was used to process soil contaminated with constituents of herbicide orange. This volume is subdivided into five parts; Part 1 contains the final report on the verification test burns, Parts 2 through 5 contain the appendixes. Volumes I and III through VIII describe the incinerator operations, the soil excavation activities, and the additional testing required by the Environmental Protection Agency.

This report has been reviewed by the Public Affairs Office (PA) and is releasable to the general public, including foreign nationals.

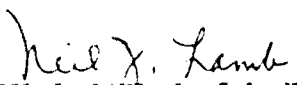
This report has been reviewed and is approved for publication.



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Laboratory



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Chief, Environics Division

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APPENDIX T

NARRATIVE AND SIGNIFICANT DATA SHEETS FROM ITAS ORGANIC AND INORGANIC ANALYTICAL REPORT

The document contained in this appendix is the detailed analytical report provided by the analytical laboratory used for the analysis of the samples collected during the Verification Test Burns at NCBC. This document was reproduced from the best available copy. Due to poor legibility, the legibility of the microfiche edition is also poor. Persons requiring the information contained in this appendix may write to the technical libraries listed below to obtain photocopied versions of the appendix. A nominal charge will be levied to cover reproduction and archival costs. Please be prepared to provide the following information:

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Verification Test Burns at the Naval Construction
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The documents contained in this appendix were published according to their own internal style, which deviates from the Air Force Engineering Services Center format. They have, therefore, been published without editing.

PART 4
APPENDIX T

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Appendix T, Exhibit 1

Introduction and Sample Identification List

INTRODUCTION

Enclosures

Enclosed are the results for samples associated with the USAF NCBC Full Scale Demo - 12/86. The analytical data summaries are contained in this report. The raw data associated with this report is contained in additional volumes. The raw data is grouped by analysis type. Within volumes the data is grouped by project code.

Volume 1 - Metals Analysis Raw Data

Volume 2 - BNA/VOST/Toxaphene/PCB Analysis Raw Data

Volume 3 - PAH Analysis Raw Data

Volume 4 - Herbicide Analysis Raw Data

Volume 5 - Inorganic Analysis Raw Data
Laboratory Bench Sheets

Sample Receipt Summary

The samples associated with this project were received in three shipments. Samples were received on December 9, 17, and 18, 1986. The samples received included 12 water samples, 5 stack samples plus associated blanks, 16 VOST pairs, and 10 air filters. Sample identifications and test assignments are summarized on the following pages.

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - BASE NUTRAL/ACID ANALYSIS PRODUCED ON 01/17/87 AT 14:42 PAGE 1

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE
EGG23548	AA5828	ENT-B	01
	AA5829	ENT-1	01
	AA5830	ENT-2	01
EGG23549	AA5844	VB-1-F	63
	AA5845	VB-2-F	63
	AA5846	VB-3-F	63
	AA5847	VB-1-XAD	61
	AA5848	VB-1-PW	12
	AA5849	VB-1-C	12
	AA5850	VB-2-XAD	61
	AA5851	VB-2-PW	12
	AA5852	VB-2-C	12
	AA5853	VB-3-XAD	61
	AA5854	VB-3-PW	12
EGG23550	AA5855	VB-3-C	12
	AA5888	FS-1	31
	AA5889	FS-2	31
	AA5890	FS-3	31
	AA5891	AD-1	31
	AA5892	AD-2	31
	AA5893	AD-3	31
	AA5894	FS-1 QC	31
	AA5895	FS-1 QC	31
	EGG23609	AA6414	FS-6
AA6415		AD-6	31
AA6416		FS-5	31
AA6417		AD-5	31
AA6418		AD-5	31
AA6419		AD-5	31
AA6445		BS-1	31
EGG23610		AA6451	ENT 5
	AA6457	ENT 6	01
	AA6460	POTW	01
	AA6464	CW	01
	AA6470	WB1	01
EGG23612	AA6487	XAD Blank	61
	AA6488	VB-5-XAD	61
	AA6489	VB-5-PW	12
	AA6490	VB-5-C	12
	AA6491	VB-6-XAD	61
	AA6492	VB-6-PW	12
	AA6493	VB-6-C	12
	AA6512	VB-5-F	63
	AA6513	VB-6-F	63
	AA6814	T Blk 7y1, ReagentBlk	12

SAM. TYPE - 01=WATER, 31=SOIL, 12,61,63=STACK COMPONENTS

Polynuclear Aromatic Hydrocarbons Analysis Data Summary

EGG 23550

Samples AA5912 (FS-1), AA5913 (FS-2), AA5918 (FS-1 QC) and AA5919 (FS-1 QC) were filtered using an 0.45 μ syringe filter before injection onto the HPLC column. Due to the matrix of the samples they were prepped and concentrated to approximately five milliliters in acetone. They were then brought to a 10 ml volume using HPLC grade acetonitrile. Samples AA5913, AA5918, and AA5919 could be injected on column at no lower a concentration than one to ten milliliters. This plus the initial high volume of extract multiplied the detection limit by a factor of one hundred.

These samples were also calculated on a wet weight basis.

EGG 23609

Samples AA6432 (FS-6) and AA6434 (FS-5) could be injected at no lower a dilution than one to one hundred due to matrix problems. The samples contained an "impurity" which adhered to the HPLC column and required prolonged organic solvent flushes to remove it, although even after subsequent removal and reconditioning, column efficiency was diminished. At this dilution the problem was not so severe.

This high dilution combined with the larger extract volume (10 ml) raised the detection limit by a factor of one thousand.

concentrated to a volume of 1.0ml with a K-D apparatus. The extract was cleaned up using a micro alumina column, solvent exchanged into hexane, and concentrated back to 1.0ml.

Low Concentration Soil - A 30 gram portion of sample was mixed with 30 grams of anhydrous sodium sulfate in a beaker. The sample was spiked with surrogate standards and triple extracted with 1:1 methylene chloride/acetone using an ultrasonic probe. The extracts were filtered, combined and concentrated to a volume of 10ml with a K-D apparatus. The 10ml extract was split into two fractions. One fraction (9.5ml) was concentrated to a volume of .95ml for GC/MS analysis of BNA's. The other fraction (0.5ml) was solvent exchanged into hexane, cleaned up using a micro alumina column, brought to a volume of 1.0ml, and analyzed by GC/EC for pesticides/PCB's.

Medium Concentration Soil - A 1.0 gram portion of sample was mixed with 2.0 grams of anhydrous sodium sulfate in a beaker. The sample was spiked with surrogate standard and extracted with Hexane using an ultrasonic probe. The extract were filtered through glass wool and 1.0 ml was concentrated to a volume of 0.5 ml using nitrogen. 0.5ml of Acetone was added and the extract was then cleaned up using a micro alumina column, solvent exchanged into hexane, and concentrated to a volume of 1.0ml.

Sample Analysis

GC/MS Analysis of Volatiles - The samples were analyzed by purge and trap GC/MS in accordance with the EPA CLP Statement of Work, 7/85 revision. The column used for this analysis was a 6 ft x 4mm I.D. glass column packed with 1% SP-1000 on 60/80 mesh Carbopack B. The column was interfaced to the ion source by a glass jet separator. The ion source was operated in the EI mode with an electron energy of 70eV. The quadrupole filter was scanned from 35 to 300 amu in 2.0 seconds. Prior to sample analysis, the system was tuned to meet EPA criteria for a 50ng injection of BFB. The tuning was checked every 12 hour shift. An initial five-point calibration was run and the mean response factor (RF) and percent relative standard deviation (%RSD) calculated for each compound. The system performance check compounds (SPCC's) had mean RF's > 0.300 (0.250 for Bromoform). The calibration check compounds (CCC's) had %RSD's < 30%. A continuing calibration standard was analyzed every 12 hour shift. The SPCC's had RF's > 0.300 (0.250 for Bromoform) and the CCC's had a percent difference (%) of < 25%.

GC/MS Analysis of Extractables (Base/Neutrals and Acids) - The sample extracts were analyzed by FSCC-GC/MS in accordance with the EPA CLP Statement of Work, 7/85 revision. The column used for this analysis was a 30m DB-5 fused silica capillary column with a 0.32mm I.D. and 1.0 micron film thickness. The column was connected directly to the ion source. The ion source was operated in the EI mode with an electron energy of 70eV. The quadrupole filter was scanned from 35 to 300 amu in 1.0 seconds. Prior to sample analysis, the system was tuned to meet EPA criteria for a 50ng injection of DFTPP. The tuning was checked every 12 hour shift. An initial five-point calibration was run and the mean response factor (RF) and percent relative standard deviation (%RSD) calculated for each compound. The system performance check compounds (SPCC's) had mean RF's > 0.050. The calibration check compounds (CCC's) had %RSD's < 30%. A continuing calibration standard was analyzed every 12 hour shift. The SPCC's had RF's > 0.050 and the CCC's had a percent difference (%) of < 25%.

GC/ECD Analysis of Pesticides/PCB's - The sample extracts were analyzed by GC/ECD in accordance with the EPA CLP Statement of Work, 7/85 revision. The columns used in this analysis were a 6 ft x 4 mm I.D. glass column packed with

1.5% SP-2250/1.95% SP-2401 on 100/120 mesh Supelcoport and a 6 ft x 2 mm I.D. glass column packed with 3% OV-1 on 100/120 mesh Supelcoport. The gas chromatograph was equipped with a NI-63 electron capture detector. Linearity was checked at the beginning of each 72 hour analytical sequence. If the column was being used for quantitation all linearity requirements were met before analysis of sample extracts. Calibration standards of all compounds to be identified, quantitated, and/or confirmed were analyzed after the linearity standards. Degradation was checked by calculating the percent breakdown of Endrin/4,4'-DDT. Degradation did not exceed 20% for Endrin or 4,4'-DDT. A calibration check standard and degradation check standard were alternately run after every 5 samples and at the end of the analytical sequence. The calibration factor for each standard did not exceed 15% for a quantitation run or 20% for a confirmation run. If any calibration criteria was not met the laboratory reanalyzed all samples following the standard that exceeded the criteria.

Herbicides - 2,4-Dichlorophenoxyacetic acid (2,4-D), Total Salts and Esters and 2,4,5-Trichlorophenoxyacetic acid (2,4,5-T), Total Salts and Esters

Sample Preparation

Soil - Fifty grams of sample was acidified with HCl to a pH of 2. The sample was then triple extracted with 1:4 mixture of acetone/diethyl ether. The extract was hydrolyzed with potassium hydroxide and extraneous organic material was removed with a solvent wash. The extract was then concentrated, methylated, and analyzed by GC/ECD for the free acids of 2,4-D and 2,4,5-T as their methyl esters.

Water - One liter of sample was acidified with HCl to a pH of 2. The sample was then triple extracted with diethyl ether. The extract was hydrolyzed with potassium hydroxide and extraneous organic material was removed with a solvent wash. The extract was then concentrated, methylated, and analyzed by GC/ECD for the free acids of 2,4-D and 2,4,5-T as their methyl esters.

Sample Analysis

GC/ECD Analysis Of 2,4-D and 2,4,5-T - The sample extracts were analyzed by GC/ECD in accordance with the EPA SW-846 method 8150. The column used in this analysis was a 6 ft x 4 mm I.D. glass column packed with 1.5% SP-2250/1.95% SP-2401 on 100/120 mesh Supelcoport. The gas chromatograph was equipped with a NI-63 electron capture detector. The GC was initially calibrated using a three point standard curve. The calibration curve was checked daily by the analysis of one or more calibration standards. If the predicted response was > +/- 10% corrective action was taken before sample analysis began.

Polynuclear Aromatic Hydrocarbons

Sample Preparation

Low Concentration Water - Approximately 1000ml (1 liter) of the sample was transferred into a 2 L separatory funnel. The sample was triple extracted with methylene chloride. The resulting extracts were filtered through conditioned sodium sulfate and concentrated to a volume of 1.0ml with a K-D apparatus. The extract was solvent exchanged into acetonitrile and concentrated back to 1.0ml.

Soil - 10 grams of soil was extracted with methylene chloride in a soxhlet extractor for 24 hrs. The resulting extracts were filtered through conditioned sodium sulfate and concentrated to a volume of 1.0ml with a K-D apparatus. The extract was solvent exchanged into acetonitrile and concentrated back to 1.0ml.

Sample Analysis

HPLC Analysis of Polynuclear Aromatic Hydrocarbons - The sample extracts were analyzed by HPLC in accordance with the EPA SW-846 method 8310. The column used in this analysis was a Supelco LC-PAH 25 cm x 4.6 mm I.D. column plus a LC-18 guard column 2 cm x 4.6 mm (5 u). The liquid chromatograph was equipped with a variable UV detector and a fluorescence spectrophotometric detector. The HPLC was initially calibrated using a three point standard curve. Linearity was checked at the beginning of each day. A check standard and a check solvent blank was alternated after every five samples. Column calibration was performed by running a 3-point calibration for each compound. A mean response and % relative standard deviation was calculated for each compound.

Inorganics Analysis

Metals

Sample Preparation

Water (Furnace Digestion) - 1.0ml of (1:1) HNO₃ and 2.0ml of 30% H₂O₂ was added to 100ml of the sample. The mixture was heated for 2 hrs at 95 deg C or until the volume was reduced to between 25 and 50 ml. The sample was cooled and brought back up to 100ml with distilled deionized water.

Water (ICP/Flame AA Digestion) - 2.0ml of (1:1) HNO₃ and 10ml of (1:1) HCl was added to 100ml of the sample. The mixture was heated for 2 hrs at 95 deg C or until the volume was reduced to between 25 and 50 ml. The sample was cooled and brought back up to 100ml with distilled deionized water.

Soil - 1.0 grams of sample was refluxed for 10 minutes with 10ml of HNO₃ (1:1). 5 ml of concentrated HNO₃ was added and the sample was refluxed for an additional 30 minutes. After cooling, 2ml of water and 3 to 10 ml of 30% H₂O₂ was added. The sample was warmed until the reaction was complete. For ICP and Sb 5 ml of HCl (1:1) and 10ml of water was added and the mixture was refluxed for an additional 10 minutes. For furnace AA the sample was reduced to 2ml, 10ml of water was added, and the mixture was heated. The sample was cooled, filtered, and diluted up to 200ml.

Sample Analysis

Analysis of Metals - The sample extracts were analyzed in accordance with the EPA CLP Statement of Work, 7/85 revision. The SOW provides for the determination of metals by inductively coupled argon plasma (ICP), graphite furnace atomic adsorption (GFAAS), and the cold vapor atomic adsorption technique for mercury (AV). Alternatively, flame atomic adsorption methods (AA) may be substituted for ICP. Calibration requires the preparation of a standard curve, one standard of which must be at the contract required detection limit (CRDL), except in the case of mercury. For metals analysis, no fewer than three non-zero standards

were used to generate the curve. For GFAAS and AV, each standard was analyzed at least three times. Standard reference material, used as initial calibration verification standards (ICVS), were used to verify that the standard curve had been developed accurately. Calibration for ICP utilizes one non-zero standard for each element plus the calibration blank. A standard designed to monitor potential interferences was analyzed as part of the verification process. For GFAAS, AA and AV, the samples were analyzed in duplicate. The standard addition method was used for GFAAS. The continuing calibration verification standard (CCVS) was analyzed after every fifth sample and was preceded by a calibration blank analysis. Duplicate injection results must agree within 20% rsd or the sample is reanalyzed once. Single standard addition recovery factors (RF) for GFAAS must fall within 85% - 115% or the sample was analyzed by the method of standard addition.

Cyanide

The samples were analyzed for cyanide in accordance with the EPA CLP Statement of Work, 7/85 revision. Cyanide as HCN was released from cyanide complexes in the sample by means of a reflux-distillation procedure and absorbed in a scrubber containing sodium hydroxide solution. The cyanide ion in the absorbing solution was then determined colorimetrically.

Chloride

The samples were analyzed for Chloride by EPA Method 325.3 (Titrimetric, Mercuric Nitrate). The acidified sample was titrated with mercuric nitrate in the presence of mixed diphenylcarbazone-bromophenol blue indicator. The end point of the titration is the formation of the blue-violet mercury diphenylcarbazone complex.

Sulfides

The samples were analyzed in accordance with EPA SW-846 method 9030. A 1-2 gram portion of the sample was diluted with 200ml of distilled deionized water. Excess iodine was added to the sample and back-titrated with sodium thiosulfate.

Biochemical Oxygen Demand

The samples were analyzed for BOD in accordance with EPA method 405.1. The original sample and serial dilutions were incubated for 5 days at 20 deg C in the dark. The dissolved oxygen concentration was measured at the beginning and end of the incubation period. The reduction in dissolved oxygen yields a measure of the biochemical oxygen demand.

Chemical Oxygen Demand

The samples were analyzed for COD in accordance with EPA method 410.2. The organic and oxidizable substances in the sample were oxidized by potassium dichromate solution in 50% (by volume) sulfuric acid solution. The excess dichromate was titrated with standard ferrous ammonium sulfate using orthophenanthroline ferrous complex (ferroin) as an indicator.

pH

The pH of the samples was determined electrometrically in accordance with EPA method 150.1. Water samples were measured directly with a glass pH electrode. Soil samples were mixed 1:1 with distilled deionized water, stirred for 1hr and measured with a glass pH electrode.

Summary of Methods

Summary of Methods

Organics Analysis

Sample Preparation

Volatiles

Low Concentration Water Samples - 5.0ml of the sample (or dilution of the sample) was spiked with internal standards and surrogates and introduced into the purge and trap device.

VOST Tubes - Tenax and Tenax/charcoal VOST tubes were spiked with internal standards and surrogates then thermally desorbed directly into the purging tube of the purge and trap device.

Tekmar LSC-2 Purge and Trap Sample Concentration - The sample was purged with helium for 12 minutes at a temperature of 40 deg C. The volatile components transferred to the vapor phase were collected on a sorbent column. At the end of the 12 minute purge cycle, the sorbent column was rapidly heated to 180 deg C and backflushed into the GC.

Extractables (Base/Neutrals and Acids)

Low Concentration Water - Approximately 1000ml (1 liter) of the sample was transferred into a 2 L separatory funnel. The sample was spiked with the surrogate standard solution and the pH was adjusted to > 11 with 10N sodium hydroxide. The sample was triple extracted with methylene chloride and the extracts were combined and labeled as the Base/Neutral fraction. The sample was again adjusted to a pH of < 2 with sulfuric acid (1 + 1) and triple extracted with methylene chloride. The extracts were combined and labeled as the Acid fraction. The resulting extracts were filtered through conditioned sodium sulfate and concentrated to a volume of 1.0ml with a K-D apparatus.

Low Concentration Soil - A 30 gram portion of sample was mixed with 30 grams of anhydrous sodium sulfate in a beaker. The sample was spiked with surrogate standards and triple extracted with 1:1 methylene chloride/acetone using an ultrasonic probe. The extracts were filtered, combined and concentrated to a volume of 10ml with a K-D apparatus. The 10ml extract was split into two fractions. One fraction (9.5ml) was concentrated to a volume of .95ml for GC/MS analysis of BNA's. The other fraction (0.5ml) was solvent exchanged into hexane, cleaned up using a micro alumina column, brought to a volume of 1.0ml, and analyzed by GC/EC for pesticides/PCB's.

Medium Concentration Soil - A 1.0 gram portion of sample was mixed with 2.0 grams of anhydrous sodium sulfate in a beaker. The sample was spiked with surrogate standards and extracted with methylene chloride using an ultrasonic probe. The extract were filtered and 5.0ml was concentrated to a volume of 1.0 ml with a K-D apparatus.

Pesticides/PCB's

Low Concentration Water - Approximately 1000ml (1 liter) of the sample was transferred into a 2 L separatory funnel. The sample was spiked with the surrogate standard solution and triple extracted with methylene chloride. The resulting extracts were filtered through conditioned sodium sulfate and

Polynuclear Aromatic Hydrocarbon Analysis Data Summary

Laboratory ID: ITAS Knoxville
 Case: EG&G
 Concentration Units: ng/g

PAH Data Summary
 Feed Stock Samples

Analyte	FS-1	FS-2	FS-3	FS-5	FS-6
BENZO(a)ANTHRACENE	2.000 U	40.000 U	40.000 U	35.000 U	35.000 U
BENZO(a)PYRENE	2.000	40.000 U	40.000 U	45.000 U	45.000 U
BENZO(b)FLUORANTHENE	2.900	44.000	40.000 U	50.000	29.000 U
CHRYSENE	1.000 U	44.000 U	40.000 U	19.000 U	19.000 U
DIBENZO(a,h)ANTHRACENE	1.000 U	40.000 U	40.000 U	110.000 U	110.000 U
FLUORANTHENE	9.100	110.000	40.000 U	100.000	84.000 U
INDENO(1,2,3-cd)PYRENE	3.000 U	40.000 U	40.000 U	48.000 U	48.000 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EG&G
 Concentration Units: ng/g

PAH Data Summary
 Soil Samples

Analyte	AD-1	AD-2	AD-3	AD-5	AD-6	BS-1
BENZO(a)ANTHRACENE	2.000 U	2.000 U	2.000 U	1.000 U	1.200 U	4.000 U
BENZO(a)PYRENE	2.000 U	2.000 U	2.000 U	1.000 U	1.000 U	1.100 U
BENZO(b)FLUORANTHENE	2.000 U	2.000 U	2.000 U	1.000 U	1.000 U	9.800 U
CHRYSENE	1.700 U	1.000 U	2.100 U	1.000 U	1.000 U	2.000 U
DIBENZO(a,h)ANTHRACENE	3.000 U	7.600 U	6.900 U	2.100 U	3.400 U	2.100 U
FLUORANTHENE	2.300 U	2.700 U	2.100 U	3.700 U	6.300 U	4.900 U
INDENO(1,2,3-cd)PYRENE	3.000 U	3.000 U	3.000 U	1.000 U	1.000 U	1.000 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EGIG
 Concentration Units: ug/L

PAH Data Summary
 Water Samples

Analyte	ENT-B	ENT-1	ENT-2	ENT-5	ENT-6	POTW	CW	WB1
BENZO(a)ANTHRACENE	0.180	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
BENZO(a)PYRENE	0.210	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U
BENZO(b)FLUORANTHENE	0.160	0.018 U	0.018 U	0.027 U	0.018 U	0.018 U	0.018 U	0.018 U
CHRYSENE	0.290	0.150 U	0.150 U	0.150 U	0.150 U	0.150 U	0.150 U	0.150 U
DIBENZO(a,h)ANTHRACENE	0.220	0.073	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
FLUORANTHENE	0.210 U	0.210 U	0.210 U	0.210 U	0.210 U	0.210 U	0.210 U	0.210 U
INDENO(1,2,3-cd)PYRENE	0.160	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EG&G
 Concentration Units: ug

PAH Data Summary
 Stack Samples

Analyte	VB-1-XAD	VB-2-XAD	VB-3-XAD	VB-5-XAD	VB-6-XAD	XAD BIK	TBIK 791
BENZO(a)ANTHRACENE	490.000	2400.000	890.000	730.000	870.000	60.000 U	60.000 U
BENZO(a)PYRENE	1300.000	6400.000	5100.000	12000.00	2000.000	4700.000	97.000
BENZO(b)FLUORANTHENE	4400.000	8800.000	7000.000	16000.00	4300.000	5300.000	4240.000
CHRYSENE	190.000	2000.000	1000.000	1600.000	1600.000	310.000	30.000 U
DIBENZO(a,h)ANTHRACENE	220.000 U	6000.000	2500.000	4800.000	3700.000	220.000 U	400.000 U
FLUORANTHENE	3100.000	2300.000	1100.000	1400.000	1100.000	110.000 U	110.000 U
INDENO(1,2,3-cd)PYRENE	4400.000	2700.000	3100.000	19000.00	5600.000	9400.000	460.000

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

00026



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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23549
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

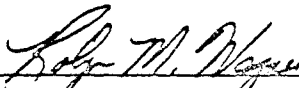
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Test 1 Stack Gas Composite Extract
Laboratory Number: AA5844
Concentration units are total ug

Benzo(a)anthracene	490
Benzo(b)fluoranthene	4,400
Benzo(a)pyrene	1,300
Chrysene	190
Dibenzo(a,h)anthracene	ND (220)
Fluoranthene	3,100
Indeno(1,2,3-cd)pyrene	4,400

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22-23/86
Date of Analysis: 1/9-10/87, 1/16/87


Approved by _____
Assistant Laboratory Manager

Title



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93-9-89



ANALYTICAL SERVICES

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ATTN: Alan Propp
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Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23549
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Test 2 Stack Gas Composite Extract
Laboratory Number: AA5845
Concentration, units are total ug

Benzo(a)anthracene	2,400
Benzo(b)fluoranthene	8,800
Benzo(a)pyrene	6,400
Chrysene	2,000
Dibenzo(a,h)anthracene	6,000
Fluoranthene	2,300
Indeno(1,2,3-cd)pyrene	2,700

Date of Extraction: 12/22-23/86
Date of Analysis: 1/9-10/87, 1/16/87

Rolyn M. Wagner
Approved by _____
Assistant Laboratory Manager
Title _____



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92-9-45



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Idaho Falls, ID 83415

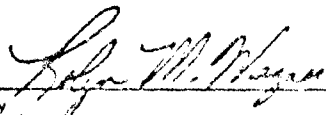
DATE REPORTED January 19, 1987
PROJECT CODE: EGG 23549
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Test 3 Stack Gas Composite Extract
Laboratory Number: AA5846
Concentration units are total ug

Benzo(a)anthracene	890
Benzo(b)fluoranthene	7,000
Benzo(a)pyrene	5,100
Chrysene	1,000
Dibenzo(a,h)anthracene	2,500
Fluoranthene	1,100
Indeno(1,2,3-cd)pyrene	3,100

Date of Extraction: 12/22-23/86
Date of Analysis: 1/9-10/87, 1/16/87


Approved by _____
Assistant Laboratory Manager

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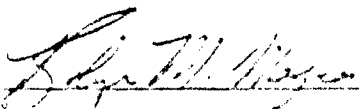
DATE REPORTED January 19, 1987
PROJECT CODE EGG 23612
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Test 6 Stack Gas Composite Extract
Laboratory Number: AA6513
Concentration units are total ug

Benzo(a)anthracene	870
Benzo(b)fluoranthene	4,300
Benzo(a)pyrene	2,000
Chrysene	1,600
Dibenzo(a,h)anthracene	3,700
Fluoranthene	1,100
Indeno(1,2,3-cd)pyrene	5,500

Date of Extraction: 12/22-23/86
Date of Analysis: 1/10/87, 1/14-15/87



Assistant Laboratory Manager



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ATTN: Alan Propp
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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23548
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

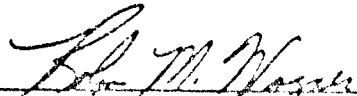
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: ENT-B (Water)
Laboratory Number: AA5837
Concentration units are ug/liter (ppb)

Benzo(a)anthracene	0.18
Benzo(b)fluoranthene	0.16
Benzo(a)pyrene	0.21
Chrysene	0.29
Dibenzo(a,h)anthracene	0.22
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	0.16

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/12/86
Date of Analysis: 12/16-18/86, 12/31/86


Approved by _____
Assistant Laboratory Manager
Title _____



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DATE REPORTED January 19, 1987
PROJECT CODE EGG 23548
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

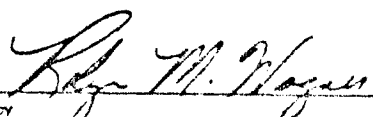
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: ENT-1 (Water)
Laboratory Number: AA5838
Concentration units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	0.073
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/12/86
Date of Analysis: 12/16-18/86, 12/31/86


Approved by _____
Assistant Laboratory Manager

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DATE REPORTED January 19, 1987
PROJECT CODE EGG 23548
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

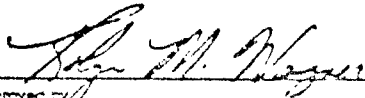
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: ENT-2 (Water)
Laboratory Number: AA5839
Concentration units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/12/86
Date of Analysis: 12/16-18/86, 12/31/86


Approved by _____
Assistant Laboratory Manager

Title



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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23610
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

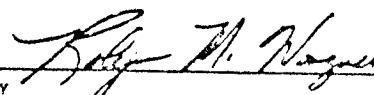
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: ENT5 (Water)
Laboratory Number: AA6454
Concentration, units are ug/liter (ppb)

Benzo(a)anthracene	0.013
Benzo(b)fluoranthene	ND (0.027)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87


Approved by _____
Assistant Laboratory Manager
Title _____



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DATE REPORTED January 19, 1987
PROJECT CODE EGG 23610
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCRC Full Scale Demo - 12/86

Sample Description: ENT6 (Water)
Laboratory Number: AA6457
Concentration, units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87

Approved by

Robert M. Wagner
Assistant Laboratory Manager

Title



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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23610
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

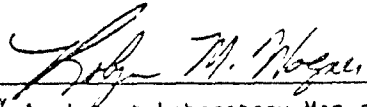
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: WB1 (Water)
Laboratory Number: AA6473
Concentration, units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87


Approved by Assistant Laboratory Manager

Title



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TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23610
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

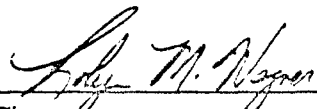
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: POTW (Water)
Laboratory Number: AA6460
Concentration, units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87


Approved by _____
Assistant Laboratory Manager
Title _____



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00103



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ATTN: Alan Propp
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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE EGG 23610
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: CW (Water)
Laboratory Number: AA6467
Concentration units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/85
Date of Analysis: 1/13-14/87

Approved by

Robert M. Wagner
Assistant Laboratory Manager

Title



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33-9-85

METHOD BLANK SUMMARY

Case No. E66 Region VTAS - Knoxville TN Contractor VTAS - Knoxville TN Contract No. _____

FILE #	DATE OF ANALYSIS	FRACION	MATRIX	COPY LEVEL	MSL ID	CAS NUMBER	COMPOUND (IHA, TIC OR UNKNOWN)	CONC.	UNITS	CRAI
0623 21	12/11/16		soil		R30		none detected			
0628 21	12/11/16		soil		R30		none detected			
0711 21	12/11/16		soil		R30		none detected			
0720	12/11/16		soil		R30		none detected			

Comments:



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ATTN: Alan Propp
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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23612
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

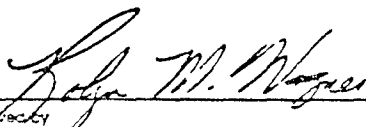
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: XAD Blank
Laboratory Number: AA6487
Concentration units are total ug

Benzo(a)anthracene	ND (60.)
Benzo(b)fluoranthene	5,300
Benzo(a)pyrene	4,700
Chrysene	310
Dibenzo(a,h)anthracene	ND (220)
Fluoranthene	ND (110)
Indeno(1,2,3-cd)pyrene	9,400

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22-23/86
Date of Analysis: 1/10/87, 1/14-15/87



Approved by Assistant Laboratory Manager
Title



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93-9-85

00127



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CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23612
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

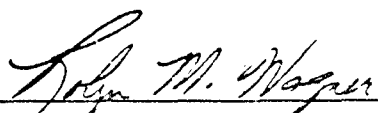
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: T-Blank 791, Reagent Blank
Laboratory Number: AA6814
Concentration units are total ug

Benzo(a)anthracene	ND (60.)
Benzo(b)fluoranthene	240
Benzo(a)pyrene	97
Chrysene	ND (30.)
Dibenzo(a,h)anthracene	ND (400)
Fluoranthene	ND (110)
Indeno(1,2,3-cd)pyrene	460

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22-23/86
Date of Analysis: 1/10/87, 1/14-15/87


Approved by _____
Assistant Laboratory Manager
Title _____



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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23548
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

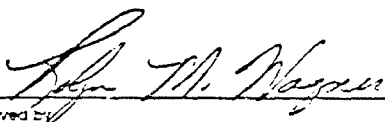
Sample Description: Method Blank 062281

Concentration units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/12/86
Date of Analysis: 12/16-18/86, 12/31/86


Approved by _____
Assistant Laboratory Manager
Title _____



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00200



ANALYTICAL SERVICES

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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Method Blank 0650(B1)

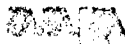
Concentration units are total ug

Benzo(a)anthracene	ND (0.020)
Benzo(b)fluoranthene	ND (0.020)
Benzo(a)pyrene	ND (0.020)
Chrysene	ND (0.010)
Dibenzo(a,h)anthracene	ND (0.010)
Fluoranthene	ND (0.020)
Indeno(1,2,3-cd)pyrene	ND (0.030)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87

[Signature]
Approved by _____
Assistant Laboratory Manager



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DATE REPORTED January 19, 1987
PROJECT CODE EGG 23609
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCSC Full Scale Demo - 12/86

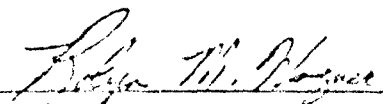
Sample Description: Method Blank 0718(81)

Concentration units are total ug

Benzo(a)anthracene	ND (0.010)
Benzo(b)fluoranthene	ND (0.010)
Benzo(a)pyrene	ND (0.010)
Chrysene	ND (0.010)
Dibenzo(a,h)anthracene	ND (0.021)
Fluoranthene	ND (0.020)
Indeno(1,2,3-cd)pyrene	ND (0.010)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87


Approved by Assistant Laboratory Manager

Title



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ANALYTICAL SERVICES

00208



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TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23610
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

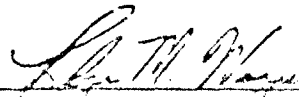
Sample Description: Method Blank 0720(81) (Water)

Concentration units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87


Approved by _____
Assistant Laboratory Manager
Title _____



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TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-1 QC, PAH Matrix Spike (Soil)
Laboratory Number: AA5918
Concentration, units are ug/kg (ppb) on a wet weight basis

QA/QC - Matrix Spike Recovery Data

	Amount Analyzed in Sample	Spike Amount Added	Theoretical Concentration Sample + Spike	Analyzed Conc. of Sample + Spike	% Recovery
Benzo(a)anthracene	ND (2.0)	990	990	780	79
Benzo(b)fluoranthene	2.9	990	990	700	70
Benzo(a)pyrene	2.0	990	990	750	76
Chrysene	ND (1.0)	990	990	800	81
Dibenzo(a,h)anthracene	ND (1.0)	990	990	630	64
Fluoranthene	9.1	990	1 000	1,100	114
Indeno(1,2,3-cd)pyrene	ND (3.0)	990	990	740	74

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/15/86
Date of Analysis: 1/8-13/87
Percent Moisture: 9.21

Ray M. Wagner
Approved by Assistant Laboratory Manager

Title



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TO: EG&G Idaho, Inc.
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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-1 QC, PAH Matrix Spike Duplicate (Soil)
Laboratory Number: AA5919
Concentration units are ug/kg (ppb) on a wet weight basis

QA/QC - Matrix Spike Duplicate Recovery Data

	Amount Analyzed in Sample	+	Spike Amount Added	=	Theoretical Concentration Sample + Spike	Analyzed Conc. of Sample + Spike	% Recovery
Benzo(a)anthracene	ND (2.0)		990		990	710	72
Benzo(b)fluoranthene	2.9		990		990	820	83
Benzo(a)pyrene	2.0		990		990	830	84
Chrysene	ND (1.0)		990		990	1,600	162
Dibenzo(a,h)anthracene	ND (1.0)		990		990	890	90
Fluoranthene	9.1		990		1,000	850	85
Indeno(1,2,3-cd)pyrene	ND (3.0)		990		990	630	64

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 9.21

Approved by

John M. Wagner

Assistant Laboratory Manager

Title



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TO: EG&G Idaho, Inc.
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DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

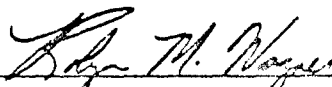
Sample Description: AD-5, PAH Matrix Spike (Ash)
Laboratory Number: AA6436
Concentration, units are ug/kg (ppb) on a wet weight basis

QA/QC - Matrix Spike Recovery Data

	Amount Analyzed in Sample	+	Spike Amount Added	=	Theoretical Concentration Sample + Spike	Analyzed Conc. of Sample + Spike	% Recovery
Benzo(a)anthracene	ND (1.0)		980		980	560	57
Benzo(b)fluoranthene	ND (1.0)		980		980	540	55
Benzo(a)pyrene	ND (1.0)		980		980	710	73
Chrysene	ND (1.0)		980		980	500	51
Dibenzo(a,h)anthracene	ND (2.1)		980		980	470	48
Fluoranthene	3.7		980		980	670	68
Indeno(1,2,3-cd)pyrene	ND (1.0)		980		980	550	57

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87
Percent Moisture: 25.89


Approved by _____
Assistant Laboratory Manager
Title _____



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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NC8C Full Scale Demo - 12/86

Sample Description: AD-5, PAH Matrix Spike Duplicate (Ash)
Laboratory Number: AA6437
Concentration units are ug/kg (ppb) on a wet weight basis

QA/QC - Matrix Spike Duplicate Recovery Data

	Amount Analyzed in Sample	+	Spike Amount Added	=	Theoretical Concentration Sample + Spike	Analyzed Conc. of Sample + Spike	% Recovery
Benzo(a)anthracene	ND (1.0)		970		970	490	50
Benzo(b)fluoranthene	ND (1.0)		970		970	440	45
Benzo(a)pyrene	ND (1.0)		970		970	670	68
Chrysene	ND (1.0)		970		970	440	45
Dibenzo(a,h)anthracene	ND (2.1)		970		970	470	48
Fluoranthene	3.7		970		970	580	59
Indeno(1,2,3-cd)pyrene	ND (1.0)		970		970	550	56

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87
Percent Moisture: 25.89

Approved by *Alan M. Propp*
Assistant Laboratory Manager

Title



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Idaho Falls, ID 83415

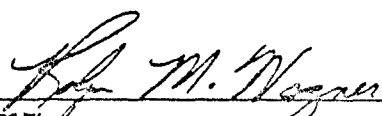
DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23548
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: QA/QC Summary - Blank Spike (Water)
Laboratory Number: 0623 (S1)
Concentration, units are ug/liter (ppb)

	<u>True Spike Concentration</u>	<u>Recovered Spike Concentration</u>	<u>% Recovery</u>
Benzo(a)anthracene	10.	9.7	97
Benzo(b)fluoranthene	10.	10.	102
Benzo(a)pyrene	10.	8.8	88
Chrysene	10.	10.	105
Dibenzo(a,h)anthracene	10.	13	133
Fluoranthene	10.	8.0	80
Indeno(1,2,3-cd)pyrene	10.	10.	101

Date of Extraction: 12/12/86
Date of Analysis: 12/16-18/86, 12/31/86


Approved by _____
Assistant Laboratory Manager
Title _____



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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: QA/OC Summary - Blank Spike (Solvent)
Laboratory Number: 0651 (S3)
Concentration units are total µg

	<u>True Spike Concentration</u>	<u>Recovered Spike Concentration</u>	<u>% Recovery</u>
Benzo(a)anthracene	10.	6.8	68
Benzo(b)fluoranthene	10.	6.7	67
Benzo(a)pyrene	10.	6.2	62
Chrysene	10.	6.9	69
Dibenzo(a,h)anthracene	10.	6.4	64
Fluoranthene	10.	8.2	82
Indeno(1,2,3-cd)pyrene	10.	6.1	61

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87

Robert M. Wagner
Approved by _____
Assistant Laboratory Manager
Title _____



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ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23609
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: QA/QC Summary - Blank Spike (Solvent)
Laboratory Number: 0719 (S1)
Concentration units are total ug

	<u>True Spike Concentration</u>	<u>Recovered Spike Concentration</u>	<u>% Recovery</u>
Benzo(a)anthracene	10.	5.7	57
Benzo(b)fluoranthene	10.	5.4	54
Benzo(a)pyrene	10.	7.3	73
Chrysene	10.	5.3	53
Dibenzo(a,h)anthracene	10.	6.4	64
Fluoranthene	10.	6.4	64
Indeno(1,2,3-cd)pyrene	10.	5.9	59

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87

Ray M. Wozniak
Approved by Assistant Laboratory Manager
Title _____



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Idaho Falls, ID 83415


DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23610
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: QA/QC Summary - Blank Spike (Water)
Laboratory Number: 00721 (S2)
Concentration units are ug/liter (ppb)

	<u>True Spike Concentration</u>	<u>Recovered Spike Concentration</u>	<u>% Recovery</u>
Benzo(a)anthracene	10.	6.6	66
Benzo(b)fluoranthene	10.	6.9	69
Benzo(a)pyrene	10.	7.6	76
Chrysene	10.	6.9	69
Dibenzo(a,h)anthracene	10.	7.7	77
Fluoranthene	10.	6.8	68
Indeno(1,2,3-cd)pyrene	10.	6.7	67

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87


Approved by _____
Assistant Laboratory Manager
Title _____



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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____


RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-1 (Soil)
Laboratory Number: AA5912
Concentration units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (2.0)
Benzo(b)fluoranthene	2.9
Benzo(a)pyrene	2.0
Chrysene	ND (1.0)
Dibenzo(a,h)anthracene	ND (1.0)
Fluoranthene	9.1
Indeno(1,2,3-cd)pyrene	ND (3.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 9.21


Approved by _____
Assistant Laboratory Manager
Title _____



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ANALYTICAL SERVICES

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DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
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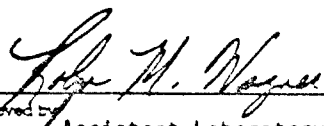
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-2 (Soil)
Laboratory Number: AA5913
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (40.)
Benzo(b)fluoranthene	44
Benzo(a)pyrene	ND (40.)
Chrysene	ND (44)
Dibenzo(a,h)anthracene	ND (40.)
Fluoranthene	110
Indeno(1,2,3-cd)pyrene	ND (40.)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 9.15


Approved by _____
Assistant Laboratory Manager
Title _____



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ANALYTICAL SERVICES

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ATTN: Alan Propp
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DATE REPORTED January 19, 1987
PROJECT CODE EGG 23550
ORDER NUMBER 5036.2.2
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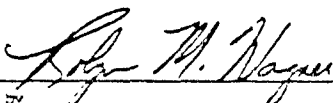
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-3 (Soil)
Laboratory Number: AA5914
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (40.)
Benzo(b)fluoranthene	ND (40.)
Benzo(a)pyrene	ND (40.)
Chrysene	ND (40.)
Dibenzo(a,h)anthracene	ND (40.)
Fluoranthene	ND (40.)
Indeno(1,2,3-c1)pyrene	ND (40.)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 8.50


Approved by _____
Assistant Laboratory Manager
Title _____



Accredited by the American Association for Laboratory Accreditation in the chemical field of testing, as listed in the current AALA Directory of Accredited Laboratories

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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-5 (Soil)
Laboratory Number: AA6434
Concentration units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	NO (35)
Benzo(b)fluoranthene	50.
Benzo(*)pyrene	NO (45)
Chrysene	NO (19)
Dibenzo(a,h)anthracene	NO (110)
Fluoranthene	100
Indeno(1,2,3-cd)pyrene	NO (48)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/15/87
Percent Moisture: 9.04

Alan M. Wagner
Approved by: _____
Assistant Laboratory Manager

Title



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DATE REPORTED January 19, 1987
PROJECT CODE EGG 23609
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

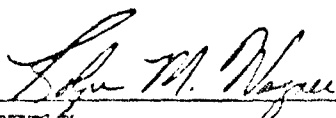
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-6 (Soil)
Laboratory Number: AA6432
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (35)
Benzo(b)fluoranthene	ND (29)
Benzo(a)pyrene	ND (45)
Chrysene	ND (19)
Dibenzo(a,h)anthracene	ND (110)
Fluoranthene	ND (84)
Indeno(1,2,3-cd)pyrene	ND (48)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87
Percent Moisture: 8.84



Approved by Assistant Laboratory Manager



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12-8-85



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DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

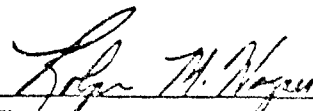
RE: USAF NCBC Full Scale Demo - 12/86

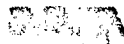
Sample Description: AD-1 (Ash)
Laboratory Number: AA5915
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (2.0)
Benzo(b)fluoranthene	ND (2.0)
Benzo(a)pyrene	ND (2.0)
Chrysene	1.7
Dibenzo(a,h)anthracene	ND (3.0)
Fluoranthene	2.3
Indeno(1,2,3-cd)pyrene	ND (3.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 18.67


Approved by _____
Assistant Laboratory Manager
Title _____



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12-8-85



ANALYTICAL SERVICES

00060

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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

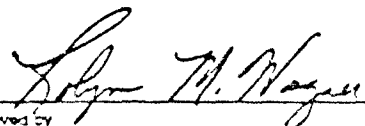
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: AD-2 (Ash)
Laboratory Number: AA5916
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (2.0)
Benzo(b)fluoranthene	ND (2.0)
Benzo(a)pyrene	ND (2.0)
Chrysene	ND (1.0)
Dibenzo(a,h)anthracene	7.6
Fluoranthene	2.7
Indeno(1,2,3-cd)pyrene	ND (3.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 27.68


Approved by _____
Assistant Laboratory Manager



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93-9-85

00065



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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

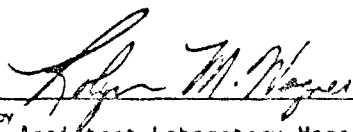
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: AD-3 (Ash)
Laboratory Number: AA5917
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (2.0)
Benzo(b)fluoranthene	ND (2.0)
Benzo(a)pyrene	ND (2.0)
Chrysene	2.1
Dibenzo(a,h)anthracene	6.9
Fluoranthene	2.1
Indeno(1,2,3-cd)pyrene	ND (3.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 24.48


Approved by _____
Assistant Laboratory Manager
Title _____



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33-6-85



ANALYTICAL SERVICES

00082

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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

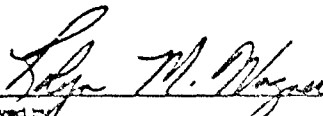
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: AD-5 (Ash)
Laboratory Number: AA6435
Concentration units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (1.0)
Benzo(b)fluoranthene	ND (1.0)
Benzo(a)pyrene	ND (1.0)
Chrysene	ND (1.0)
Dibenzo(a,h)anthracene	ND (2.1)
Fluoranthene	3.7
Indeno(1,2,3-cd)pyrene	ND (1.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87
Percent Moisture: 25.89


Approved by _____
Assistant Laboratory Manager
Title _____



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92-9-85



ANALYTICAL SERVICES

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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: AD-6 (Ash)
Laboratory Number: AA6433
Concentration units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	1.2
Benzo(b)fluoranthene	ND (1.0)
Benzo(a)pyrene	ND (1.0)
Chrysene	ND (1.0)
Dibenzo(a,h)anthracene	3.4
Fluoranthene	6.3
Indeno(1,2,3-cd)pyrene	ND (1.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/85
Date of Analysis: 1/16/87
Percent Moisture: 20.52

Approved by

Alan M. Wozniak
Assistant Laboratory Manager

Title



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83-9-85



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CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: BS-1 (Soil)
Laboratory Number: AA6448
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (4.0)
Benzo(b)fluoranthene	9.8
Benzo(a)pyrene	1.1
Chrysene	ND (2.0)
Dibenzo(a,h)anthracene	2.1
Fluoranthene	4.9
Indeno(1,2,3-cd)pyrene	ND (1.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87
Percent Moisture: 9.50

Approved by Robert M. Wagner
Assistant Laboratory Manager

Title



Accredited by the American Association for Laboratory Accreditation in the chemical field of testing as listed in the current AALA Directory of Accredited Laboratories

30-9-85

Base Neutral/Acid Analysis Data Summary

Base Neutral/Acid Analysis Data Summary

Water samples ENT5, ENT6, POTW, CW, WBI, along with WBI matrix spikes were analyzed and found to have low acid surrogate recoveries. These samples were reextracted and reanalyzed with acceptable surrogate results. This data is submitted. The reextraction was outside the usual sample holding time.

Laboratory ID: ITAS Knoxville
 Case: EC&G
 Concentration Units: ug/kg

Organics Data Summary
 Feed Stock Samples

Analyte	FS-1	FS-2	FS-3	FS-5	FS-6
BENZIDINE	5300.0 U	5300.0 U	2600.0 U	2600.0 U	2606.0 U
BIS(2-CHLOROETHOXY)METHANE	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
BIS(2-CHLOROISOPROPYL)ETHER	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
3,3'-DICHLOROBENZIDINE	1300.0 U	1300.0 U	660.0 U	660.0 U	660.0 U
2,4-DICHLOROPHENOL	660.0 U	220.0 J	230.0 J	330.0 U	210.0 J
2,5-DICHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2,6-DICHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
3,4-DICHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	370.0
4,6-DINITRO-O-CRESOL	3200.0 U	3200.0 U	1600.0 U	1600.0 U	1600.0 U
2,4-DINITROPHENOL	3200.0 U	3200.0 U	1600.0 U	1600.0 U	1600.0 U
2,4-DINITROTOLUENE	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2-METHYLPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
3-METHYLPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
4-METHYLPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
4-NITROPHENOL	3200.0 U	3200.0 U	1600.0 U	1600.0 U	1600.0 U
N-NITROSODIMETHYLAMINE	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
PHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
1,2,3,5-TETRACHLOROBENZENE	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
1,2,4,5-TETRACHLOROBENZENE	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2,3,4,5-TETRACHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2,3,4,6-TETRACHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2,3,4-TRICHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2,4,5-TRICHLOROPHENOL	1600.0	3700.0	3600.0	8800.0	5700.0
2,4,6-TRICHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EGAG
 Concentration Units: ug/kg

Organics Data Summary
 Soil Samples

Analyte	AD-1	AD-2	AD-3	AD-5	AD-6	BS-1
BENZIDINE	2600.0 U	2600.0 U	2600.0 U	2600.0 U	2600.0 U	2600.0 U
BIS(2-CHLOROETHOXY)METHANE	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
BIS(2-CHLOROISOPROPYL)ETHER	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
3,3'-DICHLOROBENZIDINE	660.0 U	660.0 U	660.0 U	660.0 U	660.0 U	660.0 U
2,4-DICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,5-DICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,6-DICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
3,4-DICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
4,6-DINITRO-O-CRESOL	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U
2,4-DINITROPHENOL	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U
2,4-DINITROTOLUENE	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2-METHYLPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
3-METHYLPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
4-METHYLPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
4-NITROPHENOL	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U
N-NITROSODIMETHYLAMINE	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
PHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
1,2,3,5-TETRACHLOROBENZENE	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
1,2,4,5-TETRACHLOROBENZENE	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,3,4,5-TETRACHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,3,4,6-TETRACHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,3,4-TRICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,4,5-TRICHLOROPHENOL	1600.0 U	1600.0 U	1600.0 U	210.0 J	1600.0 U	1600.0 U
2,4,6-TRICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EC&G
 Concentration Units: ug/L

Organics Data Summary
 Water Samples

Analyte	ENT-B	ENT-1	ENT-2	ENT-5	ENT-6	POTW	WB1	CW
BENZIDINE	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	800.0 U
BIS(2-CHLOROETHOXY)METHANE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
BIS(2-CHLOROISOPROPYL)ETHER	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
BIS(2-CHLOROISOPROPYL)ETHER	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	200.0 U
3,3'-DICHLOROBENZIDINE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,4-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,5-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,6-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
3,4-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
4,6-DINITRO-O-CRESOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	500.0 U
4,4-DINITROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	500.0 U
2,4-DINITROTOLUENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
3-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
4-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
4-NITROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	500.0 U
N-NITROSODIMETHYLAMINE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
PHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
1,2,3,5-TETRACHLOROBENZENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
1,2,4,5-TETRACHLOROBENZENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,3,4,5-TETRACHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,3,4,6-TETRACHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,3,4-TRICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,4,5-TRICHLOROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	500.0 U
2,4,6-TRICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EG&G
 Concentration Units: ug

Organics Data Summary
 Stack Samples

Analyte	VB-1-XAD	VB-2-XAD	VB-3-XAD	VB-5-XAD	VB-6-XAD	XAD Blk	TBlk 791
BENZIDINE	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
BIS(2-CHLOROETHOXY)METHANE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
BIS(2-CHLOROISOPROPYL)ETHER	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
3,3'-DICHLOROBENZIDINE	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
2,4-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,5-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,6-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
3,4-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4,6-DINITRO-O-CRESOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
2,4-DINITROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
2,4-DINITROTOLUENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
3-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-NITROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
N-NITROSODIMETHYLAMINE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
PHENOL	50.0	37.0	32.0	28.0	34.0	10.0 U	10.0 U
1,2,3,5-TETRACHLOROBENZENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
1,2,4,5-TETRACHLOROBENZENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,3,4,5-TETRACHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,3,4,6-TETRACHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,3,4-TRICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,4,5-TRICHLOROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
2,4,6-TRICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Sample Number
FS-1

Organics Analysis Data Sheet
(Page 1)

AA589805

00118

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23550
 Lab Sample ID No: AA589805 QC Report No: _____
 Sample Matrix: Feed Stock Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) 7.3

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-08-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-8	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
109-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloroethane	NA
10061-02-6	Trans-1, 3-Dichlorocyclohexane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichlorocyclohexane	
110-75-3	2-Chloroethylvinylether	
75-29-2	Bromoform	
100-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-13-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
105-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Outliers

For reporting results to EPA, the following results qualifiers are used. Additional flags or comments explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum detectable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a "U" response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- d** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable heavy contamination and warns the data user to take appropriate action.
- Other** Other specific flags and instructions may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

00119

Laboratory Name ITAS-KNOXVILLECase No EGG 33550

Sample Number

FS-1

Organics Analysis Data Sheet
(Page 2)

AA588805

Semivolatile Compounds

Concentration: Low Medium (Circle One)GPC Cleanup Yes NoDate Extracted/Prepared 12-15-86Separatory Funnel Extraction Yes NADate Analyzed 1-9-87Continuous Liquid-Liquid Extraction Yes NAConc/Dil Factor: (0.0303 Kg / 2.0ml) 0.9266Percent Moisture (Decanted) NA

← Dryness Factor

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	660. u
111-44-4	bis(2-Chloroethyl) Ether	
35-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-45-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnaphenol	
39533-32-9	bis(2-chloroisopropyl) Ether	
106-44-5	4-Methylnaphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
38-95-3	Nitrobenzene	
78-59-1	Isophorane	
88-75-5	2-Nitrophenol	
105-57-3	2,4-Dimethylnaphenol	✓
65-85-0	Benzoic Acid	3200. u
111-91-1	bis(2-Chloroethoxy) Methane	660. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
37-68-3	Hexachlorocyclopentadiene	
59-50-7	4-Chloro-3-Methylnaphenol	
31-57-5	2-Methylnaphthalene	
77-47-4	Hexachlorocyclohexadiene	✓
98-06-2	2,4,5-Trichlorophenol	no 2.0ml
35-95-4	2,4,5-Trichlorophenol	no 2.0ml
31-58-7	2-Chloronaphthalene	660. u
88-74-4	2-Nitroaniline	3200. u
131-11-3	Dimethyl Phthalate	660. u
223-95-8	Acenaphthylene	660. u
93-59-2	3-Nitroaniline	3200. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	660. u
51-28-5	2,4-Dinitrophenol	3200. u
100-02-7	4-Nitrophenol	3200. u
132-64-9	Dibenzofuran	660. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,5-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenylphenyl ether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	3200. u
534-52-1	4,6-Dinitro-2-Methylnaphenol	3200. u
85-30-6	N-Nitrosodiphenylamine (1)	660. u
101-55-3	4-Bromophenylphenyl ether	
119-74-1	Hexachlorobenzene	
87-85-5	Pentachlorophenol	3200. u
85-01-8	Phenanthrene	660. u
120-12-7	Anthracene	660. u
84-74-2	Di-n-Butylphthalate	2300. B
205-44-0	Fluoranthene	660. u
129-00-0	F	660. u
95-68-7	Buylbenzylphthalate	2000.
91-34-1	3,3-Dichlorobenzidine	1300. u
65-55-3	Benzo(a)Anthracene	660. u
117-81-7	bis(2-Ethylhexyl)phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	✓
205-93-2	Benzo(b)Fluoranthene	70. J
207-08-3	Benzo(k)Fluoranthene	660. u
60-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(h,i)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EEG 23550

Sample Number
FS-1

Organics Analysis Data Sheet
 (Page 3)

00121

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-15-86
 Date Analyzed 12-20-86
 Conc Dil Factor 1, 45
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Tosaproparg	170.00
12874-17-2	Aroclor-1016	96.00
11104-28-2	Aroclor-1221	96.00
11141-18-5	Aroclor-1232	96.00
53489-21-9	Aroclor-1242	96.00
12872-23-6	Aroclor-1248	96.00
11097-39-1	Aroclor-1254	170.00
11096-82-5	Aroclor-1250	170.00

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s 30.03g V_i 2000ul V_t 2ul

Sample Number

FS-2

AA5889

00171

Organics Analysis Data Sheet
(Page 1)Laboratory Name: ITAS - KNOXVILLECase No: EGG 23550Lab Sample ID No: AA5889

QC Report No: _____

Sample Matrix: Feed Stock

Contract No: _____

Data Release Authorized By: W.T. WilsonDate Sample Received: 12-9-84

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH _____Percent Moisture: (Not Decanted) 8.7NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-47-8	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to accurately define the results. If used, they must be fully descriptive and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
 Case No: EGG 23590

Sample Number
AS-2

Organics Analysis Data Sheet
 (Page 2)

AA5889
 00172

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-15-86
 Date Analyzed: 1-9-87
 Conc/Dil Factor: (0.03005 L / 2.0 ml) 0.9135
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes No
 Continuous Liquid-Liquid Extraction Yes No

Dryness Factor

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	660. u
111-44-4	bis(2-Chloroethyl) Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methoxyphenol	
39633-32-9	bis(2-chloroisopropyl) Ether	
106-44-5	4-Methoxyphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isochlorane	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethoxyphenol	↓
65-85-0	Benzoic Acid	3200. u
111-31-1	bis(2-Chloroethoxy)Methane	660. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methoxyphenol	
91-57-5	2-Methoxynaphthalene	
77-47-4	Hexachlorocyclopentadiene	↓
88-06-2	2,4,6-Trichlorophenol	660 u 3200
95-95-4	2,4,5-Trichlorophenol	3700 2000 u
91-58-7	2-Chloronaphthalene	660. u
88-74-4	2-Nitroaniline	3200. u
131-11-3	Dimethyl Phthalate	660. u
208-95-8	Acenaphthylene	660. u
99-09-2	3-Nitroaniline	3200. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	660. u
51-28-5	2,4-Dinitrophenol	3200. u
100-02-7	4-Nitrophenol	3200. u
132-64-9	Dibenzofuran	660. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,5-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorodiphenyl-phenylether	
86-73-7	Fluorene	↓
100-01-6	4-Nitroaniline	3200. u
534-52-1	4,6-Dinitro-2-Methoxyphenol	3200. u
96-30-6	N-Nitrosodiphenylamine (1)	660. u
101-53-3	4-Bromodiphenyl-phenylether	
118-74-1	Hexachlorobenzene	↓
87-86-5	Pentachlorophenol	3200. u
85-01-8	Phenanthrene	660. u
120-12-7	Anthracene	660. u
84-74-2	Di-n-Butylphthalate	3900. u
206-44-0	Fluoranthene	660. u
129-00-0	Pyrene	75. J
85-68-7	Butylbenzylphthalate	1500.
91-94-1	3,3'-Dichlorobenzidine	1300. u
56-55-3	Benz[a]Anthracene	660. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	↓
205-99-2	Benzokifluoranthene	100. J
207-08-9	Benzokifluoranthene	88. J
50-32-8	Benz[a]Pyrene	660. u
193-39-5	Indeno[1,2,3-cd]Pyrene	
63-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benz[a,q]napherylene	↓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23550

Sample Number
FS-2

Organics Analysis Data Sheet
 (Page 3)

00174

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared: 12-15-86
 Date Analyzed 12-20-86 1-16-87
 Conc Dil Factor 1/2, 1/10
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	180.04
12674-11-2	Aroclor-1016	88.04
11104-28-2	Aroclor-1221	88.04
11141-18-5	Aroclor-1232	88.04
53469-21-9	Aroclor-1242	88.04
12672-29-6	Aroclor-1248	88.04
11097-69-1	Aroclor-1254	180.04
11096-82-5	Aroclor-1260	180.04

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s 30.05g V_i 20000ul V_t 7ul, 5ul

Sample Number

FS-3

Organics Analysis Data Sheet
(Page 1)

AA5910

00238

Laboratory Name: ITAS - KNOXVILLECase No: EGG 23550Lab Sample ID No: AA5910

QC Report No: _____

Sample Matrix: Feed Stock

Contract No: _____

Data Release Authorized By: W.T. LintonDate Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH _____Percent Moisture: (Not Decanted) 8.4NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-84-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethoxyethyl ether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-8	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-89-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-3	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample used, the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U) if limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully explained and such description attached to the data summary file.

00239

Laboratory Name ITAS-KNOXVILLECase No EGG 23550Sample Number
FS-3Organics Analysis Data Sheet
(Page 2)

AA5890

Semivolatile Compounds

Concentration: Low Medium (Circle One)GPC Cleanup Yes NoDate Extracted/Prepared: 12-15-86Separatory Funnel Extraction Yes NADate Analyzed: 1-9-87Continuous Liquid - Liquid Extraction Yes NAConc/Dil Factor: (0.03001 / 1.0 ml) 0.9156

Dryness Factor

Percent Moisture (Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methoxyphenol	
39639-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methoxyphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethoxyphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methoxyphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	✓
88-06-2	2,4,6-Trichlorophenol	330. u 3600. u
95-95-4	2,4,5-Trichlorophenol	3600. 1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methoxyphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	1600. u
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	330. u
85-68-7	Butylbenzylphthalate	2300. u
91-94-1	3,3'-Dichlorobenzidine	660. u
56-53-3	Benz[a]Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-08-9	Benzokifluoranthene	
50-32-8	Benz[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
83-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benz[a,h,i]Perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23550

Sample Number
FS-3

Organics Analysis Data Sheet
 (Page 3)

00241

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-15-86
 Date Analyzed: 12-20-86 1-16-87
 Conc Dil Factor 1/4, 1/20
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/100ug Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	170.04
12674-11-2	Aroclor-1016	87.04
11104-28-2	Aroclor-1221	87.04
11141-16-5	Aroclor-1232	87.04
53469-21-9	Aroclor-1242	87.04
12672-29-6	Aroclor-1248	87.04
11097-99-1	Aroclor-1254	170.04
11096-82-5	Aroclor-1260	170.04

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s 30.01g V_i 20000ul V_t 2ul, 5ul

Sample Number
FS-5

Organics Analysis Data Sheet
(Page 1)

AA6416

00143

Laboratory Name: ITAS - KNOXVILLE
 Lab Sample ID No: AA6416
 Sample Matrix: Feed Stock
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23609
 QC Report No: _____
 Contract No: _____
 Date Sample Received: _____

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) 8.0

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-65-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethyvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-89-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to accurately define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: ITAS - Knoxville
 Case No: EGG 23609

Sample Number
FS - 5

AA 6416

Organics Analysis Data Sheet
 (Page 2)

00144

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-22-86
 Date Analyzed: 1-10-87
 Conc/Dil Factor: (0.0322 Kg / 1.0ml) 0.9204
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes NA
 Continuous Liquid - Liquid Extraction Yes NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	660u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnonol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylnonol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylnonol	✓
65-85-0	Benzoic Acid	3200u
111-91-1	bis(2-Chloroethoxy)Methane	660u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylnonol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	3200u
91-58-7	2-Chloronaphthalene	660u
88-74-4	2-Nitroaniline	3200u
131-11-3	Dimethyl Phthalate	660u
208-96-6	Acenaphthylene	660, 3200u
99-09-2	3-Nitroaniline	3200u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	660u
51-28-5	2,4-Dinitrophenol	3200u
100-02-7	4-Nitrophenol	3200u
132-64-9	Dibenzofuran	660u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
81-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	3200u
534-52-1	4,6-Dinitro-2-Methylnonol	3200u
85-30-6	N-Nitrosodiphenylamine (1)	660u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	3200u
85-01-8	Phenanthrene	660u
120-12-7	Anthracene	660u
84-74-2	Di-n-Butylphthalate	120, JB
206-44-0	Fluoranthene	660u
129-00-0	Pyrene	
85-58-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	1300u
56-55-3	Benzo(a)Anthracene	660u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-08-9	Benzokifluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23609

Sample Number
FS-5

Organics Analysis Data Sheet
 (Page 3)

00146

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-22-86
 Date Analyzed 1-10-87
 Conc Dil Factor 1/10, 1/100
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	320.00
12674-11-2	Aroclor-1016	110.0
11104-28-2	Aroclor-1221	630.0
11141-16-5	Aroclor-1232	87.00
53469-21-9	Aroclor-1242	87.00
12672-29-6	Aroclor-1248	94.00
11097-69-1	Aroclor-1254	170.00
11096-82-5	Aroclor-1260	270.00

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.22 g V_i 20000.0 V_t 5.0

Sample Number

FS-6

Organics Analysis Data Sheet
(Page 1)

AA6414

00201

Laboratory Name: ITAS - KNOXVILLECase No: EGG 23609Lab Sample ID No: AA6414

QC Report No: _____

Sample Matrix: Feed Stock

Contract No: _____

Data Release Authorized By: W.T. GuleanData Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH _____Percent Moisture: (Not Decanted) 9.2NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-08-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-8	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- | | | | |
|-------|---|-------|--|
| Value | If the result is a value greater than or equal to the detection limit, report the value. | C | This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compound pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS. |
| U | Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample. | B | This flag is used when the analyte is found in the blank as well as a sample. It indicates possible produce blank contamination and warns the data user to take appropriate action. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J. | Other | Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report. |

Laboratory Name ITAS-KNOXVILLE

Case No: EGG 23609

Sample Number

FS-6

AA6414

AA6414D *

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

00202

Concentration: Low Medium (Circle One)

GPC Cleanup Yes No

Date Extracted/Prepared: 12-22-86

Separatory Funnel Extraction Yes NA

Date Analyzed: 1-09-87

Continuous Liquid-Liquid Extraction Yes NA

Conc/Dil Factor: (0.03005 Kg / 1.0 ml) 0.9078

Percent Moisture (Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
37-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	220. J
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	210. J
120-82-1	1,2,4-Trichlorobenzene	330. u
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
50-00-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	5700. * →
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-38-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	↓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	↓
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	73. J B
1205-44-0	Fluoranthene	330. u
129-00-0	Pyrene	↓
85-68-7	Butylbenzylphthalate	↓
91-94-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benzo(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-03-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indand(1,2,3-cd)Pyrene	
53-70-3	O-Benz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	↓

(1) Cannot be separated from diphenylamine

* Value taken from dilution

Laboratory Name ITAS Knoxville
 Case No EGG 23109

Sample Number
FS-6

Organics Analysis Data Sheet
 (Page 3)

00204

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-22-86
 Date Analyzed 1/9, 11/87
 Conc Dil Factor 1/10, 1/100
 Percent Moisture (decarbit): _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC/Lindane	
74-44-8	Heptachlor	
505-30-2	Aldrin	
1024-37-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-53-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxy Chlor	
53494-70-5	Fluorin Ketone	
57-74-9	Chlorane	↓
8001-35-2	Toluene	320.00
12674-11-2	Aroclor-1016	110.0
11104-28-2	Aroclor-1221	590.0
11141-18-5	Aroclor-1232	88.00
53489-21-9	Aroclor-1242	84.00
12872-29-6	Aroclor-1248	95.00
11027-53-1	Aroclor-1254	170.00
11099-82-5	Aroclor-1260	280.00

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s 30.05 g V_i 20000 ul V_t 5 ul

Sample Number

AD-1

AA 5891RZ

Organics Analysis Data Sheet
(Page 1)

00009

Laboratory Name: ITAS - KNOXVILLECase No: EGG Z3550Lab Sample ID No: AA 5891RZ

QC Report No: _____

Sample Matrix: Ash

Contract No: _____

Data Release Authorized By: W.T. WilsonData Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-62-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible produce blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to correctly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE

Case No: EGG 23550

Sample Number
AD-1

Organics Analysis Data Sheet
(Page 2)

AA5891R2

Semivolatile Compounds

00010

Concentration: Low Medium (Circle One)

GPC Cleanup: Yes No

Date Extracted/Prepared: 12-15-86

Separatory Funnel Extraction Yes No

Date Analyzed: 1-19-87

Continuous Liquid-Liquid Extraction Yes No

Conc/Dil Factor: (0.03002 kg / 1.0ml) 0.015

Dryness Factor

Percent Moisture (Decanted) NA

CAS Number		ug/lorug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnaphenol	
39533-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methylnaphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylnaphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylnaphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	O-methyl Phthalate	330. u
203-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/lorug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	O-Benzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,5-Dinitrotoluene	
84-68-2	Diethylphthalate	
7005-72-3	4-Chloroethoxyphenylether	
85-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,5-Dinitro-2-Methylnaphenol	1600. u
96-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromoethoxyphenylether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	5200. u
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	330. u
85-68-7	Butylbenzylphthalate	330. u
91-94-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benzo(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	330. u
218-01-9	Chrysene	330. u
117-84-0	Di-n-Octyl Phthalate	
205-39-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
83-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

Sample Number
AD-2

AA 5892

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE Case No: EGG Z3550 00050
 Lab Sample ID No: AA5892 QC Report No: _____
 Sample Matrix: Ash Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) 25.0

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-68-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethoxyvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-47-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following results modifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- V** Value If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for this sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compound pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible analytical blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
 Case No: EGG 23550

Sample Number
AD-2

Organics Analysis Data Sheet
 (Page 2)

AA 5892

Semivolatile Compounds

00051

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 12-15-84
 Date Analyzed: 1-9-87
 Conc/Dil Factor: (0.03007 kg/1.0ml) 0.74985
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes NA
 Continuous Liquid-Liquid Extraction Yes NA

Dryness Factor

CAS Number		ug/lorug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methoxyphenol	
39533-32-3	bis(2-chloroisopropoxy)Ether	
105-44-5	4-Methoxyphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethoxyphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methoxyphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
98-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
202-95-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/lorug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-84-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methoxyphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Acenaphthene	
84-74-2	Di-n-Butylphthalate	
205-44-0	Fluoranthene	
123-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	660. u
55-55-3	Benz[a]Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-03-9	Benzokifluoranthene	
50-32-8	Benz[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benz[ghi]Perylene	✓

(1)- Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23550

Sample Number
AD-2

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

00053

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-15-86
 Date Analyzed 12-19-86
 Conc/Dil Factor 1
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	
8001-33-2	Toxaphene	210.04
12674-11-2	Aroclor-1016	110.0
11104-23-2	Aroclor-1221	110.0
11141-16-5	Aroclor-1232	110.0
53489-21-9	Aroclor-1242	110.0
12672-29-6	Aroclor-1248	110.0
11037-89-1	Aroclor-1254	210.04
11096-82-5	Aroclor-1260	210.04

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s 30.07g V_i 20000ul V_t 2ul

Sample Number

AD-3

AA5893

00085

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23550
 Lab Sample ID No: AA5893 QC Report No: _____
 Sample Matrix: Ash Contract No: _____
 Data Release Authorized By: (W.T. Wilson) Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH 2.0

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloroethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-08-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-8	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-62-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results in EPA, the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the
 definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum detectable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3U.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Sample component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible or probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE

Case No EGG 23550

Sample Number
AD-3

AA5893

Organics Analysis Data Sheet
(Page 2)

00086

Semivolatile Compounds

Concentration: Low Medium (Circle One)

GPC Cleanup Yes No

Date Extracted/Prepared 12-15-86

Separatory Funnel Extraction Yes NA

Date Analyzed 1-9-87

Continuous Liquid-Liquid Extraction Yes NA

Conc/Dil Factor: (0.03014 Kg / 1.0 ml) 0.7804

Dryness Factor

Percent Moisture (Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,5-Dinitrotoluene	
84-66-2	Diethylthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
34-74-2	Di-n-Butylphthalate	3600. u
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	330. u
95-68-7	Butylbenzylthiolate	130. u
91-94-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benzofluoranthene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-08-9	Benzofluoranthene	
50-32-8	Benzofluoranthene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenzofluoranthene	
191-24-2	Benzofluoranthene	✓

(1) Cannot be separated from diphenylamine

00088

Laboratory Name ITAS Knoxville
 Case No EGG 23550

Sample Number

AD-3

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)GPC Cleanup Yes NoDate Extracted/Prepared 12-15-86Separatory Funnel Extraction YesDate Analyzed 12-20-86Continuous Liquid - Liquid Extraction YesConc/Dil Factor 1

Percent Moisture (decanted) _____

CAS Number		ug/1cc ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	210.04
12874-11-2	Aroclor-1018	100.4
11104-23-2	Aroclor-1221	100.4
11141-18-5	Aroclor-1232	100.4
53469-21-9	Aroclor-1242	100.4
12872-29-8	Aroclor-1248	100.4
11097-89-1	Aroclor-1254	210.04
11098-82-5	Aroclor-1260	210.04

 V_i = Volume of extract injected (ul) V_s = Volume of water extracted (ml) W_s = Weight of sample extracted (g) V_t = Volume of total extract (ul)

V_s _____ or W_s 30.14g V_i 20000ul V_t 2ul

Sample Number

AD-5

001

AA641705

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE
 Lab Sample ID No: AA641705
 Sample Matrix: Ash
 Data Release Authorized By: W-T. Wilson

Case No: EGG 23609
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-11-85

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Fact.: NA pH _____Percent Moisture: (Not Decanted) 22.8

NO VOLATILE
 ANALYSIS
 REQUESTED THIS
 SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanol	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xlenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the
 definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible (probable) blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may or may not be required to accurately define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
 Case No. EGG 23 609

Sample Number
AD-5
AA641705

Organics Analysis Data Sheet
 (Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-22-86
 Date Analyzed: 1-10-87
 Conc/Dil Factor: (0.03028 Kg / 1.0 ml) 0.7720
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes NA
 Continuous Liquid-Liquid Extraction Yes NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	
95-85-4	2,4,5-Trichlorophenol	210. J
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
806-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-73-3	4-Chloroethoxyphenylether	
85-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromoethoxyphenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-13-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	64. JB
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	660. u
55-55-3	Benz(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benz(b)Fluoranthene	
207-03-3	Benz(k)Fluoranthene	
207-03-8	Benz(a)Pyrene	
193-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benz(g,h,i)Perylene	✓

(1)-Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23609

Sample Number
AD-5

001

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared 12-22-86 Separatory Funnel Extraction Yes
 Date Analyzed 1-10, 11-87 Continuous Liquid - Liquid Extraction Yes
 Conc Dil Factor 1/2, 1/20
 Percent Moisture (decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-47-5	Methoxychlor	
53404-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
A001-35-2	Toxaphene	210.0u
12674-11-2	Aroclor-1016	100.0
11104-28-2	Aroclor-1221	100.0
11141-16-5	Aroclor-1232	100.0
53489-21-9	Aroclor-1242	100.0
12672-29-3	Aroclor-1248	100.0
11097-89-1	Aroclor-1254	210.0u
11096-62-5	Aroclor-1250	210.0u

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s 30.28g V_i 20000.0 V_t 5.0

Sample Number

AD-6

AAG415

00

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23609
 Lab Sample ID No: AAG415 QC Report No: _____
 Sample Matrix: Ash Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH _____Percent Moisture: (Not Decanted) 24.6

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
79-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethoxyvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Guidelines

For reporting results to EPA, the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the
 definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-Knoxville

Case No EGG 23 609

Sample Number

AD-6

AA 6415

005

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed: 1-10-87

Conc/Dil Factor: (0.03016 Kg / 1.0 ml) 0.7538

Percent Moisture (Decanted) NA

GPC Cleanup Yes No

Separatory Funnel Extraction Yes NA

Continuous Liquid-Liquid Extraction Yes NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	∇
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorocyclopentadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	∇
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-95-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-86-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	∇
100-01-8	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	∇
87-85-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
94-74-2	Di-n-Butylphthalate	70. J B
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	
84-58-7	Butylbenzylphthalate	∇
31-34-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benz[a]Anthracene	72. J
117-81-7	bis(2-Ethylhexyl)Phthalate	330. u
218-01-9	Chrysene	60. J
117-84-0	Di-n-Octyl Phthalate	330. u
205-09-2	Benz[b]Fluoranthene	75. J
207-08-3	Benz[a]Fluoranthene	62. J
50-32-8	Benz[a]Pyrene	82. J
193-39-5	Indeno[1,2,3-cd]Pyrene	78. J
53-70-3	Dibenz[a,h]Anthracene	72. J
191-24-2	Benz[a,h]Perylene	79. J

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23609

Sample Number
AD-6

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-22-86
 Date Analyzed 1-10-87
 Conc Dil Factor 1/2, 1/20
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	210.0U
12874-11-2	Aroclor-1016	110.0U
11104-29-2	Aroclor-1221	110.0U
11141-16-5	Aroclor-1232	110.0U
53469-21-9	Aroclor-1242	110.0U
12872-29-8	Aroclor-1248	110.0U
11097-89-1	Aroclor-1254	210.0U
11095-82-5	Aroclor-1260	210.0U

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_2 = Weight of sample extracted (g)
 V_1 = Volume of total extract (ul)

V_2 _____ or W_2 30.16g V_1 20000.00 V_1 5.00

Organics Analysis Data Sheet
(Page 1)

Sample Number
BS-1
AA6445

00106

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: AA6445
Sample Matrix: Treated Soil
Data Release Authorized By: W.T. Wilson

Case No: EGG-23609
QC Report No: _____
Contract No: _____
Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: NA
Date Analyzed: NA
Conc/Dil Factor: NA pH _____
Percent Moisture: (Not Decanted) 8.4

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number	Compound	ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number	Compound	ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10051-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10051-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethoxyvinyl ether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
73-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	↓

Data Reporting Conventions

For reporting results to EPA the following results numbers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 100) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than 100 (e.g. 100). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated report as 1J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- S** This flag is used when the analyte is found in the name as well as 2 sample. It indicates possible probable name contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to clarify or explain the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
 Case No: EGG 23609

Sample Number
BS-1

Organics Analysis Data Sheet
 (Page 2)

AA6445 00107

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 12-22-86
 Date Analyzed: 1-10-87
 Conc/Dil Factor: (0.03001 kg / 1.0 ml) 0.9165
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes NA
 Continuous Liquid-Liquid Extraction Yes NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-8	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
83-05-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
38-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-84-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
806-20-2	2,6-Dinitrotoluene	
84-86-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
85-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	140.78
206-34-0	Fluoranthene	
129-00-0	Pyrene	
95-88-7	Butylbenzylphthalate	
91-94-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benzoxanthracene	330. u
117-31-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-34-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-09-9	Benzokifluoranthene	
50-32-3	Benzofluorene	
133-39-5	Indeno(1,2,3-cd)Pyrene	
83-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzod(h)Perylene	

(1)- Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23609

Sample Number
BS-1

Organics Analysis Data Sheet
 (Page 3)

00109

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-22-86
 Date Analyzed 1-10-87
 Conc/Dil Factor 1, 420
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or <u>ug/Kg</u> (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-55-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	170.00
12874-11-2	Aroclor-1018	97.00
11104-28-2	Aroclor-1221	97.00
11141-15-3	Aroclor-1232	97.00
53489-21-9	Aroclor-1242	97.00
12872-29-6	Aroclor-1248	97.00
11037-49-1	Aroclor-1254	170.00
11098-82-5	Aroclor-1260	170.00

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.01g V_i 20000.0 V_t 5.00

Sample Number
ENT - B

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23548
 Lab Sample ID No: AA5829 QC Report No: _____
 Sample Matrix: WATER Contract No: _____
 Data Release Authorized By: W.F. Wilson Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Eil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

} NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
73-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
73-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethane	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
103-10-1	4-Methyl-2-Pentanone	
591-78-8	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
103-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results in EPA, the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the
 definition of each flag must be explicit.

- V** Value If the result is a value greater than or equal to the detection limit, report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum allowable detection limit for this sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the tentative detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticides for samples where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as in sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other reporting flags and footnotes may be returned to accompany the results. If used, they must be fully described and such descriptions attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
 Case No: EGG-23548

Sample Number
ENT-B
AA5828

Organics Analysis Data Sheet
 (Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-12-86
 Date Analyzed: 1-18-87
 Conc/Dil Factor: 0.850L / 2.0 ml
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes NA

CAS Number		ug/l or ug/Kg (Circle One)
103-95-2	Phenol	10.0
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-75-1	1,3-Dichlorobenzene	
105-45-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	61
111-91-1	bis(2-Chloroethoxy)Methane	10.0
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
105-47-8	4-Chloroaniline	
87-83-3	Hexachlorocyclopentadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-3	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
83-03-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50.0
91-53-7	2-Chloronaphthalene	10.0
39-74-4	2-Nitroaniline	50.0
131-11-3	Dimethyl Phthalate	2.7 ✓
203-95-8	Aceonaphthylene	10.0
99-09-2	3-Nitroaniline	50.0

CAS Number		ug/l or ug/Kg (Circle One)
93-32-9	Aceonaphthene	10.0
51-28-5	2,4-Dinitrophenol	50.0
100-02-7	4-Nitrophenol	50.0
132-84-9	Dibenzofuran	10.0
121-14-2	2,4-Dinitrotoluene	
805-20-2	2,6-Dinitrotoluene	
34-68-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
36-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50.0
534-52-1	4,6-Dinitro-2-Methylphenol	50.0
36-30-6	N-Nitrosodiphenylamine (1)	4.8 ✓
101-55-3	4-Bromophenyl-phenylether	10.0
118-74-1	Hexachlorobenzene	10.0
87-86-5	Pentachlorophenol	50.0
85-01-8	Phenanthrene	10.0
120-12-7	Anthracene	10.0
34-74-2	Di-n-Butylphthalate	10.0
206-44-0	Fluoranthene	10.0
129-00-0	Pyrene	
35-83-7	Butylbenzylphthalate	✓
91-24-1	3,3'-Dichlorobenzidine	20.0
89-55-3	1,2,3-Anthracene	10.0
117-81-7	bis(2-Ethylhexyl)Phthalate	
213-01-3	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
105-33-2	1-Benzofluoranthene	
207-03-9	2-Benzofluoranthene	
20-32-8	1-Benzopyrene	
103-29-3	1,2,3-cd-Pyrene	
33-70-5	1-Benzoperylene	
191-24-2	Benzo[ghi]perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23948

Sample Number
ENT B

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-12-86
Date Analyzed 12-19-86
Conc Dil Factor 1
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-99-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
9001-35-2	Toxaphene	1.04
12674-11-2	Aroclor-1018	0.54
11104-29-2	Aroclor-1221	0.54
11141-16-5	Aroclor-1232	0.54
53489-21-9	Aroclor-1242	0.54
12672-39-8	Aroclor-1248	0.54
11097-89-1	Aroclor-1254	1.04
11099-82-5	Aroclor-1260	1.04

- V_i = Volume of extract injected (ul)
- V_s = Volume of water extracted (ml)
- W_s = Weight of sample extracted (g)
- V_t = Volume of total extract (ul)

v_s 880 ml or w_s _____ v_i 10000 ul v_t 2 ul

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23549
 Lab Sample ID No: AA5829 QC Report No: _____
 Sample Matrix: WATER Contract No: _____
 Data Release Authorized By: W.T. Williams Date Sample Received: 12-9-86

Volatiles Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
87-84-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
158-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
103-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10051-02-8	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-43-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
78-34-5	1, 1, 2, 2-Tetrachloroethane	
109-83-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the abbreviation of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 100) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum achievable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively significant compounds where a 1:1 ratio is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10.0). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ.
- G** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable false contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to describe the results. If used, they must be fully described and such descriptions attached to the data summary report.

Laboratory Name ITAS - Knoxville

Case No: EGG-23548

Sample Number

ENT-1

AAS129

042

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
 Date Extracted/Prepared: 12-12-87
 Date Analyzed: 1-18-87
 Conc/Dil Factor: 1.0 L / 2.0 ml
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10.0
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1, 3-Dichlorobenzene	
105-46-7	1, 4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1, 2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39639-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachlorocyclohexane	
98-95-3	Nitrobenzene	
78-59-1	Isophorene	
88-75-5	2-Nitrophenol	
105-67-9	2, 4-Dimethylphenol	✓
65-85-0	Benzoic Acid	45.
111-91-1	bis(2-Chloroethoxy)Methane	10.0
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-3	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
33-06-2	2, 4, 6-Trichlorophenol	✓
95-95-4	2, 3, 5-Trichlorophenol	50.0
91-58-7	2-Chloronaphthalene	10.0
88-74-4	2-Nitroaniline	50.0
131-11-3	Dimethyl Phthalate	4.8 J
203-95-8	Acenaphthylene	10.0
99-09-2	3-Nitroaniline	50.0

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10.0
51-28-5	2, 4-Dinitrophenol	50.0
100-02-7	4-Nitrophenol	50.0
132-64-9	Dibenzofuran	10.0
121-14-2	2, 4-Dinitrotoluene	
306-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	50.0
534-52-1	4, 6-Dinitro-2-Methylphenol	50.0
86-30-6	N-Nitrosodiphenylamine (1)	3.8 J
101-55-3	4-Bromophenyl-phenylether	10.0
118-74-1	Hexachlorobenzene	10.0
97-86-5	Pentachlorophenol	50.0
85-01-8	Phenanthrene	10.0
120-12-7	Anthracene	10.0
54-74-2	Di-n-Butylphthalate	10.0
206-44-0	Fluoranthene	10.0
129-00-0	Pyrene	
95-68-7	Butyldimethylphthalate	✓
91-94-1	3, 3'-Dichlorobenzidine	20.0
54-55-3	Benz(a)Anthracene	10.0
117-81-7	bis(2-Ethylhexyl)Phthalate	
219-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	benz(b)fluoranthene	
207-08-9	benz(k)fluoranthene	
50-32-3	benz(a)pyrene	
193-33-6	indand(1, 2, 3-cd)pyrene	
63-70-3	benz(a,h)anthracene	
191-24-2	benz(e,h)perylene	✓

(1)-Cannot be separated from diphenylamine

044

Laboratory Name ITAS Knoxville
 Case No EGG 23548

Sample Number
ENT-1

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Data Extracted/Prepared 12-12-80
 Date Analyzed 12-19-80
 Conc Dil Factor 1
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
50-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
3001-35-2	Toxaphene	1.04
12874-11-2	Aroclor-1015	0.54
11104-28-2	Aroclor-1221	0.54
11141-18-5	Aroclor-1232	0.54
83489-21-9	Aroclor-1242	0.54
13972-29-5	Aroclor-1248	0.54
11097-00-1	Aroclor-1254	1.04
11098-82-5	Aroclor-1260	1.04

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_i 960 ml or W_s _____ V_t 10000 ul V_s 2 ul

Organics Analysis Data Sheet
(Page 1)

075

Laboratory Name: ITAS - KNOXVILLE
 Lab Sample ID No: AA5830
 Sample Matrix: WATER
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23549
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

NO VOLATILE
 ANALYSIS
 REQUESTED THIS
 SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-08-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethane	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-1	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- V** Value If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum estimate detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C** This flag applies to identified compounds where the identification has been confirmed by GC/MS. Single component detection ≥ 10 ug/l in the first extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible pre- or post- analysis contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS - Knoxville
 Case No: EGG-23548

Sample Number
ENT-2

H. 5830

071

Organics Analysis Data Sheet
 (Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
 Date Extracted/Prepared: 12-12-86
 Date Analyzed: 1-18-87
 Conc/Dil Factor: 0.790 L / 2.0 ml
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes NA

CAS Number	Compound	ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-84-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	83.
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
83-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
83-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	3.6 J
203-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number	Compound	ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-84-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
806-20-2	2,6-Dinitrotoluene	
84-68-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl phenylether	
85-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
88-30-6	N-Nitrosodiphenylamine (1)	4.9 J
101-55-3	4-Bromophenyl phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	10. u
205-43-0	Fluoranthene	10. u
129-00-0	Pyrene	
85-88-7	Butylbenzylphthalate	✓
81-84-1	3,3'-Dichlorobenzidine	20. u
86-85-3	Benzo(a)Anthracene	10. u
117-31-7	bis(2-Ethylhexyl)Phthalate	
213-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-03-0	Benzo(k)Fluoranthene	
50-32-3	Benzo(a)Pyrene	
133-33-5	Indeno(1,2,3-cd)Pyrene	
83-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(h)Perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23548

Sample Number
ENT-2

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-12-80
 Date Analyzed 12-19-80
 Conc Dil Factor 1
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes

CAS Number		ug/L or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
78-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Tosaphene	1.04
12874-11-2	Aroclor-1016	0.54
11104-28-2	Aroclor-1221	0.54
11141-16-5	Aroclor-1232	0.54
83489-21-9	Aroclor-1242	0.54
12872-29-5	Aroclor-1248	0.54
11097-39-1	Aroclor-1254	1.04
11096-82-5	Aroclor-1260	1.04

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s 860ml or W_s _____ V_i 10000ul V_t 2ul

Sample Number
ENT 5

Organics Analysis Data Sheet
(Page 1)

0032

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23610
 Lab Sample ID No: AA6451RP QC Report No: _____
 Sample Matrix: WATER Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-46-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
109-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-89-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Guidelines

For reporting results to EPA, the following reporting guidelines are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be exact.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum analytical detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE

Case No: EGG 23610

Sample Number
ENTS

0033

Organics Analysis Data Sheet
(Page 2)

AA645IRP

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared 1-15-87
Date Analyzed: 1-17-87
Conc/Dil Factor: 1.06 / 2.0 ml
Percent Moisture (Decanted) NA

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes NA

CAS Number		<u>ug/l</u> or ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-3	4-Chloroaniline	
87-58-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
35-35-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
208-36-8	Aceonaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		<u>ug/l</u> or ug/Kg (Circle One)
83-32-9	Aceonaphthylene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-84-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-68-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	4.0 J
101-55-3	4-Bromophenyl-phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-85-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
208-44-0	Fluoranthene	
1129-00-0	Pyrene	
35-88-7	Butylbenzylphthalate	✓
91-94-1	3,3-Dichlorobenzidine	20. u
58-55-3	Benzo(a)Anthracene	10. u
117-31-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-03-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
133-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
131-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

0035

Laboratory Name ITAS Knoxville
 Case No EAG 23610

Sample Number
ENT-5

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared 12-21-86 Separatory Funnel Extraction Yes
 Date Analyzed 1-9-87 Continuous Liquid-Liquid Extraction Yes
 Conc Dil Factor 1, 110
 Percent Moisture (decanted) _____

CAS Number		<u>ug/L</u> or ug/Kg (Circle One)
319-24-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
50-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.0u
12574-11-2	Aroclor-1015	0.5u
11104-20-2	Aroclor-1221	0.5u
11141-18-5	Aroclor-1232	0.5u
53489-21-8	Aroclor-1242	0.5u
12672-29-6	Aroclor-1248	0.5u
11037-69-1	Aroclor-1254	1.0u
11096-32-5	Aroclor-1260	1.0u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 10000 ul V_t 5 ul

Sample Number
ENT 6

Organics Analysis Data Sheet
(Page 1)

0067

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 73610
 Lab Sample ID No: PA 6457 RP QC Report No: _____
 Sample Matrix: water Contract No: _____
 Data Release Authorized By: W. T. Hudson Date Sample Received: 12-17

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

} NO VOLATILE ANALYSIS REQUESTED THIS SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	↓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	↓

Data Reporting Conventions

For reporting results to EPA, the following results qualifiers are used. Additional flags or notations explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The instrument should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ug/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and notations may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXville
 Case No EGG 23510

Sample Number
ENT6

Organics Analysis Data Sheet
 (Page 2)

AA6457RP 0068

Semivolatils Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 1-15-87
 Date Analyzed: 1-17-87
 Conc/Dil Factor: 1.0 L / 2.0 ml
 Percent Moisture (Decanted): NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methoxyphenol	
39638-32-9	bis(2-chloroethoxy)Ether	
106-44-5	4-Methoxyphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachlorocyclopentadiene	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorocyclobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,6-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
203-96-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-84-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
806-20-2	2,6-Dinitrotoluene	
34-66-2	Diethylphthalate	
7005-72-3	4-Chloroethyl-phenylether	
86-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methoxyphenol	50. u
35-30-6	N-Nitrosodiphenylamine (1)	2.0 J
101-55-3	4-Bromoethyl-phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-36-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
94-74-2	Di-n-Butylphthalate	
203-44-0	Fluoranthene	
129-00-0	Pyrene	
85-63-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	20. u
53-55-3	Benzo[a]Anthracene	10. u
117-91-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-89-2	Benzo[b]Fluoranthene	
207-03-9	Benzo[k]Fluoranthene	
50-32-3	Benzo[a]Pyrene	
193-33-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benzo[e,h]Perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EEG 23610

0070

Sample Number
ENT-6

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared 12-21-86 Separatory Funnel Extraction Yes
 Date Analyzed 1-9-87 Continuous Liquid - Liquid Extraction Yes
 Conc Dil Factor 1
 Percent Moisture (decanted) _____

CAS Number		<u>ug/l</u> or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.04
12674-11-2	Aroclor-1016	0.54
11104-28-2	Aroclor-1221	0.54
11141-16-5	Aroclor-1232	0.54
53469-21-9	Aroclor-1242	0.54
12672-29-6	Aroclor-1248	0.54
11097-89-1	Aroclor-1254	1.04
11096-82-5	Aroclor-1260	1.04

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 10000 ul V_t 5 ul

Sample Number

CW

Organics Analysis Data Sheet
(Page 1)

0007

Laboratory Name: ITAS - KNOXVILLECase No: EGG 23610Lab Sample ID No: AA6464RP

QC Report No: _____

Sample Matrix: water

Contract No: _____

Data Release Authorized By: W. T. WilsonDate Sample Received: 12-17-84

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
87-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-37-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
103-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
103-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Conventions

For reporting results to EPA, the following results qualifications are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

V Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum ascertainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to describe the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE

Case No: EGG 23410

Sample Number
CW

0008

Organics Analysis Data Sheet
(Page 2)

AA 6464 RP

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 1-15-87
Date Analyzed: 1-17-87
Conc/Dil Factor: 1.0 L / 20. mL
Percent Moisture (Decanted): NA

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid-Liquid Extraction Yes No

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	100. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	500. u
111-91-1	bis(2-Chloroethoxy)Methane	100. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	500. u
91-58-7	2-Chloronaphthalene	100. u
88-74-4	2-Nitroaniline	500. u
131-11-3	Dimethyl Phthalate	100. u
208-95-8	Acenaphthylene	100. u
99-09-2	3-Nitroaniline	500. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	100. u
51-23-5	2,4-Dinitrophenol	500. u
100-02-7	4-Nitrophenol	500. u
132-64-9	Dibenzofuran	100. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,5-Dinitrotoluene	
84-66-2	Dimethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	500. u
534-52-1	4,6-Dinitro-2-Methylphenol	500. u
36-30-6	N-Nitrosodiphenylamine (1)	100. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	500. u
85-01-8	Phenanthrene	100. u
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
129-00-0	Pyrene	
85-63-7	Butylbenzylphthalate	✓
31-94-1	3,3'-Dichlorobenzidine	200. u
58-55-3	Benz[a]Anthracene	100. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzob[Fluoranthene	
207-03-9	Benzok[Fluoranthene	
59-32-3	Benz[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benzog[h,i]Perylene	✓

(1)-Cannot be separated from diphenylamine

0010

Laboratory Name ITAS KnoxvilleCase No EGG 23610

Sample Number

EWOrganics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)GPC Cleanup Yes NoDate Extracted/Prepared 12-21-86Separatory Funnel Extraction YesDate Analyzed 1-9-87Continuous Liquid - Liquid Extraction YesConc Dil Factor 1

Percent Moisture (decanted) _____

CAS Number		<u>ug/l</u> or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-85-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
78-44-3	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.0u
12674-11-2	Aroclor-1016	0.5u
11104-23-2	Aroclor-1221	0.5u
11141-16-5	Aroclor-1232	0.5u
53489-21-	Aroclor-1242	0.5u
12672-23-8	Aroclor-1248	0.5u
11097-89-1	Aroclor-1254	1.0u
11098-32-5	Aroclor-1260	1.0u

 V_i = Volume of extract injected (ul) V_s = Volume of water extracted (ml) W_s = Weight of sample extracted (g) V_t = Volume of total extract (ul) V_s 1000 ml or W_s _____ V_i 10000 ul V_t 5 ul

Sample Number

POTW

Organics Analysis Data Sheet
(Page 1)

0100

Laboratory Name: ITAS - KNOXVILLECase No: EGG 23610Lab Sample ID No: A46460RP

QC Report No: _____

Sample Matrix: water

Contract No: _____

Data Release Authorized By: (W.T. Wilson)Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

} NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-5	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	↓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylnvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	?-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	↓

Data Reporting Questions

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compound pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as used as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
 Case No EGG-23610

Sample Number 0101
 POTW.
 AA6460RP

Organics Analysis Data Sheet
 (Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 1-15-87
 Date Analyzed 1-17-87
 Conc/Dil Factor: 1.06 / 2.0 ml
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes NA

CAS Number		ug/lbr ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisobutyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
108-47-8	4-Chloroaniline	
87-88-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,5-Trichlorophenol	✓
95-55-4	2,4,5-Trichlorophenol	50. u
91-54-7	2-Chloronaphthalene	10. u
82-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
208-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/lbr ug/Kg (Circle One)
33-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-84-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
505-20-2	2,6-Dinitrotoluene	
94-88-2	Diethylphthalate	
7005-72-3	4-Chloroanil-phenylether	
85-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
36-30-6	N-Nitrosodiphenylamine (1)	40 J
101-55-3	4-Bromophenyl-phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
94-74-2	Di-n-Butylphthalate	
203-44-0	Fluoranthene	
129-00-0	Pyrene	
35-63-7	Butylbenzylphthalate	✓
91-94-1	J, J'-Dichlorobenzidine	20. u
53-55-3	Benzo(a)Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
219-01-3	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
135-99-2	Benzo(b)Fluoranthene	
207-08-3	Benzo(k)Fluoranthene	
50-32-9	Benzo(e)Pyrene	
100-30-5	Isomer 1, 2, 3-diPyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

0103

Laboratory Name ITAS Knoxville

Case No EAG 23610

Sample Number
POTW

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

GPC Cleanup Yes No

Date Extracted/Prepared 12-21-86

Separatory Funnel Extraction Yes

Date Analyzed 1-9-87

Continuous Liquid - Liquid Extraction Yes

Conc Dil Factor 1

Percent Moisture (decanted) _____

CAS Number		<u>ug/L</u> or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.0U
12874-11-2	Aroclor-1016	0.5U
11104-28-2	Aroclor-1221	0.5U
11141-16-5	Aroclor-1232	0.5U
53489-21-9	Aroclor-1242	0.5U
12872-29-6	Aroclor-1248	0.5U
11097-69-1	Aroclor-1254	1.0U
11096-82-5	Aroclor-1260	1.0U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 1000 ul V_t 5 ul

Sample Number
WB 1

0128

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - Knoxville Case No: EGG 23610
 Lab Sample ID No: AA647ORP QC Report No: _____
 Sample Matrix: water Contract No: _____
 Data Release Authorized By: W.Z. Wilson Data Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

} NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-3	2-Chloroethoxyvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Questions

For reporting results to EPA, the following results criteria are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
 Case No EGG-2361D

Sample Number
WBI
AA6470RP

012

Organics Analysis Data Sheet
 (Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 1-15-87
 Date Analyzed: 1-17-87
 Conc/Dil Factor: 1.0 L / 2.0 ml
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes NA

CAS Number		ug/L or ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorane	
88-75-5	2-Nitrophenol	
105-57-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
37-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclooctadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-35-4	2,4,5-Trichlorophenol	50. u
31-53-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
203-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/L or ug/Kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
94-86-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
85-30-6	N-Nitrosodichloroamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
94-74-2	Di-n-Butylphthalate	
203-44-0	Fluoranthene	
129-00-0	Pyrene	
95-83-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	20. u
58-55-3	Benzo(a)Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Janzo(b)Fluoranthene	
207-09-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-33-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Benzo(b)Anthracene	
131-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

0131

Laboratory Name ITAS Knoxville
 Case No E4G 23610

Sample Number

WBI

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared 12-21-86 Separatory Funnel Extraction Yes
 Date Analyzed 1-9-87 Continuous Liquid - Liquid Extraction Yes
 Conc Dil Factor 1
 Percent Moisture (decanted) _____

CAS Number		<u>ug/l</u> or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
53-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.04
12674-11-2	Aroclor-1016	0.54
11104-29-2	Aroclor-1221	0.54
11141-16-5	Aroclor-1232	0.54
53469-21-9	Aroclor-1242	0.54
12672-29-6	Aroclor-1248	0.54
11097-59-1	Aroclor-1254	1.04
11095-82-5	Aroclor-1260	1.04

V_i = Volume of extract injected (ul)V_s = Volume of water extracted (ml)W_s = Weight of sample extracted (g)V_t = Volume of total extract (ul)

V_s 1000ml or W_s _____ V_i 1000ul V_t 5ml

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EGG 23550 Contract Laboratory I.T.A.S. - Knoxville Contract No. _____

Low Medium

MSD LABORATORY NO.	VOLATILE				SEMI-VOLATILE				PESTICIDE	
	TOLUENE-88 (101-117)	MIB (124-131)	1,2-DICHLORO-ETHANE-84 (170-181)	NITRO-BENZENE-83 (221-230)	2-FLUORO-DIPHENYL (100-110)	TERPENTH-81 (100-109)	PHENOL-85 (104-113)	2-FLUORO-PHENOL (100-111)	2,4,6-TRIBROMO-PHENOL (110-121)	DDTIL-CHLORODATE (100-100)
MS FS-1				42	50	70	48	46	48	101
MS FS-1 GC				40	48	66	48	46	44	
MSD FS-1 GC				34	50	56	50	46	38	
MS FS-2				54	64	74	64	66	54	107
MS FS-3				46	46	58	50	53	43	100
AD-1		NOT SUBMITTED		45	47	52	40	45*	42*	111
AD-2				57	59	52	56	54	41	111
AD-3				39	46	43	40	45*	34	109
AD-IR/Run				47	52	44	39	26	17*	
Method Blank 1				106	108	87	103	114	57	110
Method Blank 2				49	47	51	41	37	26	
Method Blank 3										88

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS
 * ADVISORY LIMITS ONLY
 Volatiles: _____ out of _____ outside of QC limits
 Semi-Volatiles: 47 out of 106 outside of QC limits
 Pesticides: 0 out of 8 outside of QC limits

00001

Comments: _____

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EG 23550 Contractor ITAS Knoxville Contract No. _____

Low Level Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	OC LIMITS RPD RECOVERY
VOA SMO SAMPLE NO.	1,1-Dichloroethane								23 50-172
	Trichloroethane								24 62-137
	Chlorobenzene								21 60-133
	Xylenes								21 60-130
	Benzene								21 60-132
B/N SMO SAMPLE NO.	1,2,4-Trichlorobenzene	3600	0	890	25*	890	25*	0	23 30-107
	Arochlor 1248			770	22*	790	22*	1.2	10 31-137
	2,4-Dinitrotoluene			1300	36	1100	31*	17	33 35-142
	Pyrene			490	14*	400	11*	20	33 41-128
	Hexachlorobiphenyls			950	26*	980	27*	-3.1	27 20-104
ACID SMO SAMPLE NO.	1,3-Dinitrobenzene			740	19*	110	15*	24	47 17-109
	Phenol			1500	21*	1500	21*	0	33 20-60
	2-Chlorophenol			1800	25	1800	25	0	60 25-102
	4-Chloro-3-methylphenol			1700	74*	1500	21*	13	33 28-103
	3-Nitrophenol			550	76*	700	9.7*	24	60 11-114
PEST SMO SAMPLE NO.	Lindane								60 42-127
	Heptachlor								31 35-130
	Aldrin								43 34-132
	Dieldrin								38 31-134
	Endrin								45 42-133
	4,4'-DDT								50 23-134

*ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

RPD: VOA: _____ out of _____; outside OC limits
 B/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits

RECOVERY: VOA: _____ out of _____; outside OC limits
 B/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits

00002

METHOD BLANK SUMMARY

Case No. EGE 23550 Region Contractor ITHS-Knoxville Contract No.

FILE NO	DATE OF ANALYSIS	FRACTION	MATRIX	COMP. LEVEL	INST. ID	CAS NUMBER	COMPOUND (INSULIFIC OR UNKNOWN)	CONC.	UNITS	CRDL
BLK 0742 B1	1-9-87	BNA	ASH	LOW	4023	84-74-2	Di-n-butylphthalate	73.3	ug/kg	330
						625-86-5	Furan, 2,5-dimethyl-	210.3		
						108-21-4	Acetic Acid, 1-methylethyl ester	1300.3		
						-	unknown	9600.3		
						-	unknown (saturated hydrocarbon)	820.3		
						-	unknown (saturated hydrocarbon)	970.3		
						-	unknown (saturated hydrocarbon)	1700.3		
						84-74-2	Di-n-butylphthalate	980		330
BLK 0643 B1	1-9-87	BNA	FEED STAL	LOW	4023	-	unknown	340.3		
						108-21-4	Acetic Acid, 1-methylethyl ester	2400.3		
						625-06-9	2-Pentanol, 2,4-dimethyl-*	16000.3		
						110-12-3	2-hexanone, 5-methyl	1900.3		
						-	unknown (saturated hydrocarbon)	980.3		
						-	unknown (saturated hydrocarbon)	2800.3		
						-	unknown	240.3		
						4205-26-4	2-hexanone, 6-(acetyloxy)	1900.3		
						110-13-4	2,5-hexanedione	160.3		
						-	unknown	760.3		

Comments: * suspected Alkal condensate

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METHOD BLANK SUMMARY

Case No. E664 Region ITAS Knoxville Contractor ITAS Knoxville Contract No. 00004

PLC ID	DAYS OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. NO.	CAS NUMBER	COMPOUND IDENTIFIC OR UNKNOWN	CONC.	UNITS	CRDL
M81-E664 23550	12-19-84	P231	Soil	Low	V3700		None detected			
M82-E664 23550	12-20-84	"	"	"	"		"			

Comments:

00004 7/85

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. ECC-23609 Contract Laboratory I.T.A.S. - Knoxville Contract No. _____

Low Medium High

SURROGATE NO.	VOLATILE					SEMI-VOLATILE					PESTICIDE
	TOLUENE-D8 (81-117)	MIB (72-131)	1,2-DICHLORO-ETHANE-D4 (70-131)	NITRO-BENZENE-D8 (83-120)	2-FLUORO-BIPHENYL (80-114)	TERPHENYL-D14 (18-137)	PHENOL-D8 (81-113)	8-FLUORO-PHENOL (81-131)	2,4,6-TRIBROMO-PHENOL (110-121)	DIBUTYL-SEBACATE (100-130)	
Method Blank											
FS-6				38	45	46	40	41	29	84	
FS-5				45	49	57	48	50	48	110	
AD-5				51	61	50	55	70	46	120	
AD-5 MS				54	56	37	52	27	36	88	
AD-5 MID				47	49	33	51	44	37	74	
BS-1				53	61	37	61	49	43	85	
AD-6				51	65	44	58	68	39	92	
FS-6-PA				42	50	29	48	54	84	100	
				30	48	92	42	42	48	-	

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS
 * ADVISORY LIMITS ONLY

Volatiles: out of _____ out of _____ out of _____
 Semi-Volatiles: 0 out of 48 out of 48 out of 48
 Pesticides: 0 out of 0 out of 0 out of 0

7/85

Comments: _____

0001

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGC 23607 Contractor Medium Level Contract No. 7/85

Low Level Medium Level

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	OC LIMITS @ RPD RECOVERY
VOA S&O SAMPLE NO.	1,1-Dichloroethane								22 59-172
	Trichloroethane								24 82-137
	Chlorobenzene								21 60-133
	Toluene								21 59-139
	Benzene								21 63-147
BIN S&O SAMPLE NO.	1,2,4-Trichlorobenzene	2100	0.0	1100	52	1700	62	17	23 38-107
	Acenaphthene			1100	37	1200	62	17	19 31-137
	2,4-Dinitrotoluene			780	38	810	47	24	47 28-69
	Pyrene			779	35	820	37	12	38 35-142
	Nitrocellulose Plastic			460	23*	518	19*	19	39 41-128
AD-S	1,4-Dichlorobenzene			1000	48	1200	57	18	27 28-104
	Pentachlorobenzene	4100		2100	50	2600	62	21	47 17-109
	Pyrene			1700	45	2300	55	20	35 20-60
	2-Chlorophenol			1700	40	2000	46	18	50 25-102
	4-Chloro-3-methylphenol			1500	43	2000	47	11	33 23-103
PEST S&O SAMPLE NO.	4-Nitrophenol			1000	24	1200	29	19	53 11-114
	Linuron								
	Hexachlor								50 48-127
	Andrin								31 35-130
	Dieldrin								43 34-132
4,4'-DDT	Endrin								39 31-134
	4,4'-DDT								45 47-139
									50 73-134

*ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

RPD: VOA: out of ___; outside OC limits
 B/N: 2 out of 6; outside OC limits
 ACID: 0 out of 5; outside OC limits
 PEST: out of ___; outside OC limits

RECOVERY: VOA: out of ___; outside OC limits
 B/N: 2 out of 12; outside OC limits
 ACID: 0 out of 10; outside OC limits
 PEST: out of ___; outside OC limits

Comments: 1.0 ml x 50 ug/ml
0.03004 Kg x 0.7720
100 ug/kg
0.03004 x 0.7720

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG 23609 Contractor URS Knoxville Contract No. _____

Low Level Y Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (µg/kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	NPD	OC LIMITS RECOVERY
VOA SMO SAMPLE NO.	1,1-Dichloroethene								22 60.172
	Trichloroethene								76 67.137
	Chlorobenzene								31 60.133
B/N SMO SAMPLE NO.	Toluene								71 69.139
	Benzene								71 69.132
	1,2,4-Trichlorobenzene								23 33.107
	Acenaphthene								18 31.137
	2,4-Dinitrotoluene								47 28.69
ACID SMO SAMPLE NO.	Pyrene								39 35.147
	N-Ethylsuccinimide								38 41.128
	1,4-Dichlorobenzene								77 28.104
	Pentachlorophenol								47 17.109
	Phenol								35 28.90
PCB PEST SMO SAMPLE NO.	2-Chlorophenol								60 25.107
	4-Chloro-3-methylphenol								33 28.103
	4-Nitrophenol								52 11.114
	Aroclor 1260	850.	0.	820.	96.	960.	110.	16	

* ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

NPD: VOA: _____ out of _____; outside OC limits
 B/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits

RECOVERY: VOA: _____ out of _____; outside OC limits
 B/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits

Comments: _____

METHOD BLANK SUMMARY

Case No. EGG-23607 Region Contractor I.T.A.S. - Knoxville Contract No.

FILE NO	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	CAS NUMBER	COMPOUND (INCL. TIC OR UNREPROD)	CONC.	UNITS	CRDL
BLK0704A1	1-9-87	RNA	Soil	L	84-74-2	Di-n-Butylphthalate	110.7	ng/lb	310.
					108-21-4	Acetic Acid, 1-methyl ethyl ester	2,000.7		
					75-91-2	Hydroperoxide, 1,1-Dimethyl ethyl	14,000.7		
					921-47-1	N-xane, 2,3,4-Tri methyl	640.7		
					2216-34-4	octane, 4-methyl	660.7		
					5288-87-4	Heptane, 4 (1-methyl ethyl)-	1700.7		
					5721-82-5	8-Heptanal, Acetalde	150.7		
					20019-64-1	2(SM)-Benzene, 5,5-Dimethyl-	320.7	✓	
						none detected			
						" "			
MS1-EGG 23609	1-10-87	Perf	Soil	Low	4374013				
	1-10-87				" "				
	1-11-87				U3760				

Comments:

0004

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FORM IV

WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. E-G-23541 Contract Laboratory I.T.A.S. - Knoxville Contract No. _____

SOLVENT NO.	VOLATILE						SEM-VOLATILE						PESTICIDE
	VALERIE-00 100-1100	1,4-DICHLORO- ETHANE-04 100-1100	MINO- BENZENE-05 100-1100	P-FLUORO- BENZENE 100-1100	1,2-DICHLORO- ETHANE 100-1100	PERMETHYL- 911 100-1100	PERMETHYL- 100-1100	P-FLUORO- TOLUENE 100-1100	P-FLUORO- TOLUENE 100-1100	P-FLUORO- TOLUENE 100-1100	P-FLUORO- TOLUENE 100-1100	PERCENT RECOVERY 100-1100	
ENT-8			35	45		45	11	32	45		100%		
ENT-1			32	46		45	12	32	45		110%		
ENT-2			38	45		37	15	33	38		92%		
Metals (Blank)			SP	47		47	23	26	38		95%		

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS
 * ADVISORY LIMITS ONLY

Volatiles: _____ out of _____ ; outside of QC limits
 Semi-Volatiles: 1 out of 24 ; outside of QC limits
 Pesticides: 0 out of 4 ; outside of QC limits

Comments: _____

METHOD BLANK SUMMARY

Case No. EG-C-13541 Region

Contractor I.I.A.S. - Knoxville

Contract No.

FILE #	DATE OF ANALYSIS	FRACTION	MATRIX	COND. LEVEL	PH	CAD NUMBER	COMPOUND (MSL, TIC OR UNKNOWN)	CONC.	UNITS	ORL
BLK062031R	1-17-77	BNA	Water	L	4500	-	unknown - solvent evicted?	24.3	mg/L	-
WH-EGC13543	12-19-76	Pest	Water	low	5300	2538-700	Cyclohexanal, 4-chloro - Trans - none detected	33.3	"	-

Comments:

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WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. E.G.C. 23610 Contract Laboratory I.T.A.S. - Knoxville Contract No. _____

SWP TESTING NO.	VOLATILE				SEM-VOLATILE				PESTICIDE	
	TOLUENE-88 (88-110)	MIBK (88-111)	1,2-DICHLORO-ETHANE-84 (84-112)	MIBK-89 (89-113)	F-FLUORO-BIPHENYL (82-114)	TEMPERITIL-814 (81-115)	PARA-DICHLORO-89 (89-116)	F-FLUORO-PHENOL (81-117)	2,4,6-TRICHLORO-PHENOL (81-118)	BIOGULIN CINCHONINOLATE (88-119)
Heard Blank				40	47	48	12	57	38	89
ENT5				45	50	43	17	37	52	100
ENT6				45	48	47	10	51	60	91
POTW				40	47	42	11	26	43	85
CU				39	54	51	14	33	46	73*
WB1				43	52	48	15	35	43	87
WB1MSD				45	53	45	27	28	46	
WB1MS				39	52	42	15	49	38	
POTWMS										100
POTWMSB										110

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED OC LIMITS
 * ADVISORY LIMITS ONLY

Volatiles: _____ out of _____ ; outside of OC limits
 Semi-Volatiles: 0 out of 48 ; outside of OC limits
 Pesticides: 1 out of 8 ; outside of OC limits

Comments: _____

1000

~~1000~~ ¹⁰⁰⁰

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. E.C.C. 13610 Contractor ITAS-Knoxville Contract No. 0002

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSO	% REC	RPD	OC LIMITS RECOVERY
VOA S&O SAMPLE NO.	1,1-Dichloroethane								14 61-145
	Trichloroethane								14 71-120
	Chlorobenzene								13 75-130
	Toluene								12 78-125
B/N S&O SAMPLE NO.	Benzene								11 78-127
	1,2,4-Trichlorobenzene	2.00	0.0	86	43	95	48	97	28 39-88
	Acenaphthene			110	55	110	55	0.0	31 48-118
	2,4-Dinitrotoluene			75	38	92	46	20	38 24-98
	Pyrene			87	45	95	49	9.6	31 28-127
	Nitrooxy-Di-n-Propylamine			48	24	61	31	24	38 41-116
W/B ACID S&O SAMPLE NO.	1,4-Dichlorobenzene			82	41	96	48	16	28 36-97
	Pentachlorobenzene	4.00		120	30	200	50	50	50 9-103
	Phenol			62	16	74	19	18	47 12-89
	2-Cyanophenol			150	38	180	45	18	40 27-123
	4-Chloro-3-Methylphenol			58	15*	100	25	53*	42 23-87
	4-Nitrophenol			67	17	34	9*	68*	50 10-50
PEST S&O SAMPLE NO.	Lindane								15 56-123
	Heptachlor								20 40-131
	Aldrin								22 40-120
	Dieldrin								18 52-128
	Endrin								21 56-121
4,4'-DDT								27 38-127	

* ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOA_s out of ___ : outside QC limits
 B/N ___ out of ___ : outside QC limits
 ACID ___ out of ___ : outside QC limits
 PEST ___ out of ___ : outside QC limits

RECOVERY: VOA_s out of ___ : outside QC limits
 B/N ___ out of ___ : outside QC limits
 ACID ___ out of ___ : outside QC limits
 PEST ___ out of ___ : outside QC limits

Comments: FOR BOD: 2.0 ml x 50 ug/l = 100 ug/l
0.5 L
 FOR HET: 2.0 ml x 100 ug/l = 200 ug/l
0.5 L

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WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. E66r 23010 Contractor ITAS-Knoxville Contract No. _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	OC LIMITS RECOVERY
VOA SMO SAMPLE NO.	1,1-Dichloroethane								14 81-145
	Trichloroethane								14 71-120
	Chlorobenzene								13 75-130
	Toluene								17 76-125
B/N SMO SAMPLE NO.	Benzene								11 76-127
	1,2,4-Trichlorobenzene								28 39-98
	Acetophenone								31 48-118
	2,4-Dinitrotoluene								38 24-98
ACID SMO SAMPLE NO.	Pyrene								31 25-127
	1,4-Dioxin Di-oxide polychlorobenzene								38 41-118
	1,4-Dichlorobenzene								28 36-97
	Parachlorophenol								50 9-103
PEST SMO SAMPLE NO.	Phenol								42 17-89
	2-Chlorophenol								40 27-123
	4-Chloro-3-Methylphenol								42 23-97
	4-Nitrophenol								50 10-80
POTW	Endoclor 1260	200.	0	180.	90.	210.	110.	15.	

* ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

RPD: VOAs out of : outside OC limits
 B/N out of : outside OC limits
 ACID out of : outside OC limits
 PEST out of : outside OC limits

Recovery: VOAs out of : outside OC limits
 B/N out of : outside OC limits
 ACID out of : outside OC limits
 PEST out of : outside OC limits

Comments: _____

0003

Sample number
METHOD BLANK

2

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23548
 Lab Sample ID No: BLK0620B1R OC Report No: _____
 Sample Matrix: WATER Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-86-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-83-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- V** Value If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample such as the U is (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnotes should note: U-Compound was analyzed for but not detected. The number is the minimum detectable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10Z). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticides for samples where the identification has been confirmed by GC/MS. Single compound pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- S** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible produce blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to correctly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS - Knoxville
 Case No. EGG 23548

Sample Number
Method Blank 1
 BLK062081R

212

Organics Analysis Data Sheet
 (Page 2)

Semivolatiles Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-12-86
 Date Analyzed: 1-18-87
 Conc/Dil Factor: 1.0L / 2.0 ml
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes NA

CAS Number	Compound	ug/lbr ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-84-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
105-47-8	4-Chloroaniline	
87-63-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-8	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
35-35-4	2,4,5-Trichlorophenol	50. u
91-53-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
209-95-3	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number	Compound	ug/lbr ug/Kg (Circle One)
33-32-9	Acenaphthene	10. u
51-23-5	2,4-Dinitrophenol	50. u
100-02-7	6-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
806-20-2	2,6-Dinitrotoluene	
24-63-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,8-Dinitro-2-Methylphenol	50. u
83-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	50. u
85-01-3	Phenanthrene	10. u
120-12-7	Anthracene	10. u
34-74-2	Di-n-Butylphthalate	10. u
203-44-0	Fluoranthene	10. u
129-00-0	Pyrene	
35-68-7	Butylbenzophthalate	✓
31-34-1	3,3'-Dichlorobenzidine	20. u
58-55-3	Benzo(a)Anthracene	10. u
117-31-7	bis(2-Ethylhexyl)Phthalate	
213-01-3	Chrysene	
117-34-0	Di-n-Octyl Phthalate	
205-93-2	Benzo(b)fluoranthene	
207-03-5	Benzo(k)fluoranthene	
50-32-3	Benzo(a)Pyrene	
133-33-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
131-24-2	Benzo(g,h,i)Perylene	✓

(1) - Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23548

Sample Number
M81-EGG 23548

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared 12-12-80 Separatory Funnel Extraction Yes
 Date Analyzed 12-19-80 Continuous Liquid - Liquid Extraction Yes
 Conc Dil Factor _____
 Percent Moisture (decanted) _____

CAS Number		<u>ug/l</u> or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
78-44-3	Mectachlor	
309-00-2	Aldrin	
1024-57-3	Mectachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	
8001-35-2	Toxaphene	1.04
12874-11-2	Aroclor-1016	0.54
11104-29-2	Aroclor-1221	0.54
11141-16-5	Aroclor-1232	0.54
33489-21-9	Aroclor-1242	0.54
12872-29-8	Aroclor-1243	0.54
11037-39-1	Aroclor-1254	1.04
11038-32-5	Aroclor-1260	1.04

- V_i = Volume of extract injected (ul)
- V_s = Volume of water extracted (ml)
- W_s = Weight of sample extracted (g)
- V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 10000 ul V_t 2 ul

Sample Number
Method blank 1

Organics Analysis Data Sheet
(Page 1)

00529

Laboratory Name: ITAS - Knoxville Case No: EGG 23550
 Lab Sample ID No: BLK 0762 B1 QC Report No: _____
 Sample Matrix: Site Contract No: _____
 Data Release Authorized By: W.F. Gulev Data Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 1/2

Date Analyzed: _____

Conc/Dil Factor: _____ pH NA

Percent Moisture: (Not Decanted) NA "OP"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-65-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethoxyvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- V** Value: If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible volatile blank contamination and warns the data user to take additional corrective action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE

Case No EGG 23550

Sample Number
Method Blank
 BLK0762 B1

Organics Analysis Data Sheet
 (Page 2)

Semivolatile Compounds

00530

Concentration: Low Medium (Circle One)

GPC Cleanup Yes No

Date Extracted/Prepared 12-31-86

Separatory Funnel Extraction Yes No

Date Analyzed: 1-9-87

Continuous Liquid - Liquid Extraction Yes No

Conc/Dil Factor: 0.030 / 1.0 ml

Percent Moisture (Decanted) NA

No
 Dryness Factor
 (Assume = 1)

CAS Number	Compound	ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-43-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnaph.	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylnaph.	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorane	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylnaph.	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
105-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylnaph.	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
203-95-3	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number	Compound	ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-84-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
605-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylnaph.	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	73. J
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	
95-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	660. u
55-55-3	Benzo(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
60-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(b,h)Perylene	✓

(1) Cannot be separated from diphenylamine

Sample Number
Method blank z

Organics Analysis Data Sheet
(Page 1)

00564

Laboratory Name: ITAS - Knoxville Case No: EGG 23550
 Lab Sample ID No: BLK0643 B1 QC Report No: _____
 Sample Matrix: Feed stock Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: N/A
 Date Analyzed: _____
 Conc/Dil Factor: _____ pH N/A
 Percent Moisture: (Not Decanted) N/A ~ "0.0"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	N/A
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	N/A
10061-02-6	Trans-1, 3-Dichlorocyclohexene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichlorocyclohexene	
110-75-8	2-Chloroethylvinyl ether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required in practice before the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
 Case No EGG 23550

Sample Number
Method Blank

Organics Analysis Data Sheet
 (Page 2)

BLK0643B1

Semivolatile Compounds

00565

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 12-15-86
 Date Analyzed 1-9-87
 Conc/Dil Factor: 0.030 kg / 1.0 ml
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes NA
 Continuous Liquid-Liquid Extraction Yes NA
 No Drymen Factor

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39539-32-9	bis(2-chloroisopropyl)Ether	
105-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	∇
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-05-2	2,4,6-Trichlorophenol	∇
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
605-20-2	2,5-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	∇
100-01-8	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	∇
97-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	930
205-44-0	Fluoranthene	330. u
129-00-0	Pyrene	
95-68-7	Butylbenzylphthalate	∇
91-94-1	3,3-Dichlorobenzidine	660. u
65-55-3	Benzo(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	∇

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EEG 23550

Sample Number
 Method Blank 2
 MBI-EEG 23550
 Low Level Soil Blk

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

00567

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-15-86
 Date Analyzed 12-19-86
 Conc Dil Factor 1
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-37-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-3	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
8001-35-2	Toxaphene	160.04
12874-11-2	Aroclor-1016	50.04
11104-23-2	Aroclor-1221	50.04
11141-18-5	Aroclor-1232	50.04
53489-21-9	Aroclor-1242	50.04
12872-29-6	Aroclor-1248	50.04
11097-39-1	Aroclor-1254	160.04
11056-32-5	Aroclor-1260	160.04

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00g V_i 2000ul V_t 2ul

Laboratory Name ITAS-Knoxville
 Case No. EGG 23550

Sample Number
M62-EGG 23548

Organics Analysis Data Sheet
 (Page 3)

Sulfur Clean-up
 Blank-
 low level soil

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-19-86
 Date Analyzed 12-20-86
 Conc/Dil Factor 1
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

0053

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	N/A
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
8001-35-2	Toxaphene	160.00
12674-11-2	Aroclor-1016	30.00
11104-23-2	Aroclor-1221	30.00
11141-16-5	Aroclor-1232	30.00
53469-21-9	Aroclor-1242	30.00
12672-20-8	Aroclor-1248	30.00
11097-59-1	Aroclor-1254	160.00
11095-32-5	Aroclor-1260	160.00

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00g V_i 1000ul V_t 2ul

Sample Number
Method Blank

Organics Analysis Data Sheet
(Page 1)

00522

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: BLK0704B1
Sample Matrix: Soil - low
Data Release Authorized By: W.T. Wilson

Case No: EGG 23609
QC Report No: _____
Contract No: _____
Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: NA
Date Analyzed: NA
Conc/Dil Factor: NA pH _____
Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethane	
67-65-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10051-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10051-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively unidentified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/g in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to uniquely define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
 Case No: EGG 23609

Sample Number
Method Blank

Organics Analysis Data Sheet
 (Page 2)

BLK070431

00523

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-22-86
 Date Analyzed: 1-09-87
 Conc/Dil Factor: 0.030 kg / 1.0 m
 Percent Moisture (Decanted): NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes NA
 Continuous Liquid - Liquid Extraction Yes NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
57-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-3	2,4-Dimethylphenol	↓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-05-2	2,4,6-Trichlorophenol	↓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-59-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
506-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	↓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
36-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	↓
87-85-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
34-74-2	Di-n-Butylphthalate	110. u
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	↓
91-94-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benz(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benz(b)Fluoranthene	
207-08-9	Benz(k)Fluoranthene	
50-32-8	Benz(a)Pyrene	
193-33-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benz(g,h,i)Perylene	↓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No E66 23609

Sample Number
 Methal Blank 1
 M31- E66 23609

Organics Analysis Data Sheet
 (Page 3)

Low Level Soil Blank
 00525

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-22-86
 Date Analyzed 1-10-87
 Conc Dil Factor 1, 1/10
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	N/A
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-3	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	160.00
12874-11-2	Aroclor-1016	20.00
11164-28-2	Aroclor-1221	20.00
11141-13-5	Aroclor-1232	20.00
53469-21-3	Aroclor-1242	20.00
12572-23-6	Aroclor-1248	20.00
11097-89-1	Aroclor-1254	160.00
11095-82-5	Aroclor-1260	160.00

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00g V_i 20000ul V_t 5ul, 2ul

Sample Number
METHOD BLANK | 027

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS Knoxville Case No: EGG 23610
 Lab Sample ID No: BLK 083181 QC Report No: _____
 Sample Matrix: Water Contract No: _____
 Data Release Authorized By: W. T. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
78-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- V** Value If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with this U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides 210 ng/l or in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible procedure blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
 Case No EGG 23610

Sample Number
 Method Blank! 0275
 BLK083181

Organics Analysis Data Sheet
 (Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 1-15-87
 Date Analyzed: 1-17-87
 Conc/Dil Factor: 1.0 L / 2.0 ml
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes No

CAS Number	Compound	ug/lbr ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-45-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
89-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-3	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50. u
51-53-7	2-Chloronaphthalene	10. u
89-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
203-95-8	Acenaphthylene	10. u
89-09-2	3-Nitroaniline	50. u

CAS Number	Compound	ug/lbr ug/Kg (Circle One)
93-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
808-20-2	2,5-Dinitrotoluene	
34-68-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
35-73-7	Fluorane	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-86-5	Pentachlorophenol	50. u
95-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
94-74-2	Di-n-Butylphthalate	
203-44-0	Fluoranthene	
129-00-0	Pyrene	
35-88-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	20. u
88-55-3	Benzo(a)Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
213-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-03-9	Benzo(k)Fluoranthene	
50-32-3	Benzo(a)Pyrene	
123-30-3	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1)-Cannot be separated from diphenylamine

0275

Laboratory Name ITAS Knoxville
 Case No EGG 23610

Sample Number
 MBI-E46 23610

Organics Analysis Data Sheet
 (Page 3)

Water Blank

Pesticide/PCBs

Concentration Low Medium (Circle One)

GPC Cleanup Yes No

Date Extracted/Prepared 12-21-86

Separatory Funnel Extraction Yes

Date Analyzed 1-9-11-87

Continuous Liquid - Liquid Extraction Yes

Conc Dil Factor 1

Percent Moisture (decanted) _____

CAS Number		<u>ug/L</u> or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.0u
12674-11-2	Aroclor-1016	0.5u
11104-28-2	Aroclor-1221	0.5u
11141-16-5	Aroclor-1232	0.5u
53469-21-9	Aroclor-1242	0.5u
12672-29-6	Aroclor-1248	0.5u
11097-39-1	Aroclor-1254	1.0u
11096-82-5	Aroclor-1260	1.0u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000ml or W_s _____ V_i 10000ul V_t 5ul, 2ul

Sample Number
Texas Blank
Charcoal Blank

Organics Analysis Data Sheet
(Page 1)

0514

Laboratory Name: ITAS Knoxville Case No: EGG23612
 Lab Sample ID No: AA6510 QC Report No: _____
 Sample Matrix: VOST Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-30-86
 Date Analyzed: 12-30-86
 Conc/Dil Factor: NA pH NA
 Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/l or ug/kg (Circle One)
74-87-3	Chloromethane	50. u
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	7. J
67-64-1	Acetone	440. B
75-15-0	Carbon Disulfide	25. u
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	↓
67-66-3	Chloroform	15. J B
107-06-2	1, 2-Dichloroethane	25. u
78-93-3	2-Butanone	130. B
71-55-6	1, 1, 1-Trichloroethane	25. u
56-23-5	Carbon Tetrachloride	25. u
108-05-4	Vinyl Acetate	50. u
75-27-4	Bromodichloromethane	25. u

CAS Number		ng/tube ug/l or ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. u
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	6. J
10061-01-5	cis-1, 3-Dichloropropene	25. u
110-75-8	2-Chloroethylvinylether	50. u
75-25-2	Bromoform	25. u
108-10-1	4-Methyl-2-Pentanone	50. u
591-78-6	2-Hexanone	50. u
127-18-4	Tetrachloroethene	42.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. u
108-88-3	Toluene	3. J
108-90-7	Chlorobenzene	25. u
100-41-4	Ethylbenzene	
100-42-5	Styrene	↓
	Total Xylenes	↓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/ml in the final extract should be confirmed by GC-MS.
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable, or true contamination and warns the data user to take appropriate action.
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
METHOD BLANK I

Organics Analysis Data Sheet
(Page 1)

0873

Laboratory Name: ITAS - MOXVILLE Case No: EGG 23612
 Lab Sample ID No: VOBL12293 QC Report No: _____
 Sample Matrix: WATER Contract No: _____
 Data Release Authorized By: H-T. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12-29-86

Date Analyzed: 12-29-86

Conc/Dil Factor: — pH _____

Percent Moisture: (Not Decanted) —

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	U	10
74-83-9	Bromomethane	U	10
75-01-4	Vinyl Chloride	U	10
75-00-3	Chloroethane	U	10
75-09-2	Methylene Chloride	J	3J
67-64-1	Acetone		34
75-15-0	Carbon Disulfide	U	5.0
75-35-4	1, 1-Dichloroethene	U	1
75-34-3	1, 1-Dichloroethane	U	1
156-60-5	Trans-1, 2-Dichloroethene	U	1
67-66-3	Chloroform		5
107-06-2	1, 2-Dichloroethane	U	5.0
78-93-3	2-Butanone	U	10
71-55-6	1, 1, 1-Trichloroethane	U	5.0
56-23-5	Carbon Tetrachloride	U	5.0
108-05-4	Vinyl Acetate	U	10
75-27-4	Bromodichloromethane	U	5.0

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	U	5.0
10061-02-6	Trans-1, 3-Dichloropropene	U	1
79-01-6	Trichloroethene	U	1
124-48-1	Dibromochloromethane	U	1
79-00-5	1, 1, 2-Trichloroethane	U	1
71-43-2	Benzene	U	1
10061-01-5	cis-1 3-Dichloropropene	U	1
110-75-8	2-Chloroethylvinylether	U	10
75-25-2	Bromoform	U	5.0
108-10-1	4-Methyl-2-Pentanone	U	10
591-78-6	2-Hexanone	U	10
127-18-4	Tetrachloroethene	U	5.0
79-34-5	1, 1, 2, 2-Tetrachloroethane	U	1
108-88-3	Toluene	U	1
108-90-7	Chlorobenzene	U	1
100-41-4	Ethylbenzene	U	1
100-42-5	Styrene	U	1
	Total Xylenes	U	1

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
 TBLK 791
 REAGENT BLANK
 METHOD

Organics Analysis Data Sheet
 (Page 1)

AA6814

080

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23612
 Lab Sample ID No: AA6814 QC Report No: _____
 Sample Matrix: REAGENT SOLVENT Contract No: _____
 Data Release Authorized By: W.T. Gulam Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

NO VOLATILE
 ANALYSIS
 REQUESTED THIS
 SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
691-76-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ul in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define IPQ results. If used, they must be fully described and such description attached to the data summary report.

0802

Laboratory Name: ITAS-KNOXVILLE
Case No: EGG 23612

Sample Number
REAGENT TB4K711
Method Blank
AA 6814

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 1-9-87
Date Analyzed: 1-12-87
Conc/Dil Factor: 10:1
Percent Moisture (Decanted) NA

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes NA

CAS Number	Compound	ug/l or ug/kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylpheno	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
208-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number	Compound	ug/l or ug/kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	4. ✓
206-44-0	Fluoranthene	10. u
129-00-0	Pyrene	
95-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	20. u
56-55-3	benzo(a)Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	✓
117-84-0	Di-n-Octyl Phthalate	24. u
205-99-2	benzo(b)Fluoranthene	10. u
207-08-9	benzo(k)Fluoranthene	
50-32-8	benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
63-70-3	Dibenz(a,h)Anthracene	
191-24-2	benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23612

Sample Number
TBLK 791
Reagent Blank

Organics Analysis Data Sheet
 (Page 3)

685

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12/22-29/86
 Date Analyzed 1-10-87
 Conc (Dil Factor) 1, 420
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ng ug/L or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-3	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
50-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-3	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53454-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
9001-35-2	Toxaphene	1000.U
12674-11-2	Aroclor-1016	500.U
11104-28-2	Aroclor-1221	500.U
11141-16-5	Aroclor-1232	500.U
53469-21-9	Aroclor-1242	500.U
12672-29-8	Aroclor-1248	500.U
11097-69-1	Aroclor-1254	1000.U
11056-82-5	Aroclor-1260	1000.U

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_3 = Weight of sample extracted (g)
 V_1 = Volume of total extract (ul)

V_2 _____ or W_3 _____ V_1 5000ul V_1 5ul
 *modified prep - see narrative

1995 095

Sample Number
 XAD Blank

**Organics Analysis Data Sheet
(Page 1)**

Laboratory Name: ITAS-Knoxville Case No: EGG 23612
 Lab Sample ID No: A46487 QC Report No: _____
 Sample Matrix: Solvent-Resin Contract No: _____
 Data Release Authorized By: W.T. Wilson Data Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: _____
 Conc/Dil Factor: NA pH NA
 Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
109-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- | | |
|--|--|
| <p>V Value If the result is a value greater than or equal to the detection limit, report the value</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ</p> | <p>C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action</p> <p>Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report</p> |
|--|--|

0952

Laboratory Name ITAS - KnoxvilleCase No: EGG 23612Sample Number
XAD BlankOrganics Analysis Data Sheet
(Page 2)AA6487
2
AA6487D2 *

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: _____
Date Analyzed: 1-12-87
Conc/Dil Factor: 10 : 1
Percent Moisture (Decanted) NAGPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes NA

CAS Number	Compound	ug/l or ug/g (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
521-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	✓
91-20-3	Naphthalene	66.
106-47-8	4-Chloroaniline	10. u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
55-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
83-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
208-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number	Compound	ug/l or ug/g (Circle One)
33-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
24-86-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	10. u
101-85-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
24-74-2	Di-n-Butylphthalate	2. J
205-41-0	Fluoranthene	10. u
129-00-0	Pyrene	
35-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	20. u
55-55-3	Benz[a]Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	15.
213-01-9	Chrysene	10. u
117-84-0	Di-n-Octyl Phthalate	510. *
205-99-2	Benzobifluoranthene	10. u
207-08-9	Benzokifluoranthene	
50-32-3	Benz[a]Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benz[a,h,i]perylene	✓

(1) Cannot be separated from diphenylamine

* DATA TAKEN FROM DILUTION RUN -
WTK 1-15-87Form 1
927

7.85

Laboratory Name ITAS Knoxville
 Case No EGG 23612

Sample Number
XAD BLANK

Organics Analysis Data Sheet
 (Page 3)

0954

Pesticide/PCBs

Concentration Low Medium (Circle One) * GPC Cleanup Yes No
 Date Extracted/Prepared 12/22-29/86 Separatory Funnel Extraction Yes
 Date Analyzed 1-10, 11-87 Continuous Liquid - Liquid Extraction Yes
 Conc (Dil Factor) 15, 120, 1200
 Percent Moisture (decanted) _____

CAS Number		^{ng} ug/l or ug/kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1100.0
12674-11-2	Aroclor-1016	500.0
11104-28-2	Aroclor-1221	9400.0
11141-16-5	Aroclor-1232	500.0
53469-21-9	Aroclor-1242	500.0
12672-29-6	Aroclor-1248	500.0
11097-89-1	Aroclor-1254	1000.0
11096-82-5	Aroclor-1260	1000.0

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000ul V_t 5ul
 * modified prep - see narrative

Sample Number
FS-1 GC #5

Organics Analysis Data Sheet
(Page 1)

00604

Laboratory Name: ITAS - Knoxville
Lab Sample ID No: HA S894ms
Sample Matrix: Feed stocks
Data Release Authorized By: W. Z. Wilson

Case No: EGG 23550
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: NA
Date Analyzed: _____
Conc/Dil Factor: _____ pH NA
Percent Moisture: (Not Decanted) NA 7.3

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-13-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
103-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/g in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
 Case No EGG 23550

Sample Number
RS-1 QC MS
AA5894MS

Organics Analysis Data Sheet
 (Page 2)

Semivolatile Compounds

00605

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 12-15-86
 Date Analyzed: 1-9-87
 Conc/Dil Factor: (0.030 kg/2.0ml) 0.9266
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes NA
 Continuous Liquid-Liquid Extraction Yes NA

< > = matrix spike

CAS Number		ug/l or ug/kg (Circle One)
108-95-2	Phenol	< 150. >
111-44-4	bis(2-Chloroethyl) Ether	660. u
95-57-8	2-Chlorophenol	< 130. >
541-73-1	1,3-Dichlorobenzene	660. u
105-46-7	1,4-Dichlorobenzene	< 950. >
100-51-6	Benzyl Alcohol	660. u
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl) Ether	
106-44-5	4-Methylphenol	↓
621-64-7	N-Nitroso-Di-n-Propylamine	< 490. >
67-72-1	Hexachloroethane	660. u
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	↓
65-85-0	Benzoic Acid	3200. u
111-91-1	bis(2-Chloroethoxy)Methane	660. u
120-83-2	2,4-Dichlorophenol	660. u
120-82-1	1,2,4-Trichlorobenzene	< 890. >
91-20-3	Naphthalene	660. u
105-47-8	4-Chloroaniline	
87-68-3	Hexachlorocyclopentadiene	↓
59-50-7	4-Chloro-3-Methylphenol	< 1700. >
91-57-6	2-Methylnaphthalene	660. u
77-47-4	Hexachlorocyclopentadiene	660. u
88-06-2	2,4,6-Trichlorophenol	660. u
95-95-4	2,4,5-Trichlorophenol	730. u
91-58-7	2-Chloronaphthalene	660. u
88-74-4	2-Nitroaniline	3200. u
131-11-3	Dimethyl Phthalate	660. u
208-95-8	Acenaphthylene	660. u
99-09-2	3-Nitroaniline	3200. u

CAS Number		ug/l or ug/kg (Circle One)
83-32-9	Acenaphthene	< 940. >
51-28-5	2,4-Dinitrophenol	3200. u
100-02-7	4-Nitrophenol	< 550. >
132-64-9	Dibenzofuran	660. u
121-14-2	2,4-Dinitrotoluene	< 790. >
608-20-2	2,6-Dinitrotoluene	660. u
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
56-73-7	Fluorene	↓
100-01-6	4-Nitroaniline	3200. u
534-52-1	4,6-Dinitro-2-Methylphenol	3200. u
85-30-6	N-Nitrosodiphenylamine (1)	660. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	↓
87-85-5	Pentachlorophenol	< 140. >
85-01-8	Phenanthrene	660. u
120-12-7	Anthracene	660. u
84-74-2	Di-n-Butylphthalate	4700. u
206-44-0	Fluoranthene	660. u
129-00-0	Pyrene	< 1300. >
85-68-7	Butylbenzylphthalate	660. u
91-94-1	3,3'-Dichlorobenzidine	1300. u
56-55-3	Benz[a]Anthracene	660. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-3	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
206-99-2	Benz[b]Fluoranthene	
207-08-9	Benz[k]Fluoranthene	
50-32-8	Benz[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[ah]Anthracene	
191-24-2	Benz[ghi]Perylene	↓

(1) Cannot be separated from diphenylamine

Sample Number

FS-1GC

MSD

Organics Analysis Data Sheet
(Page 1)

00618

Laboratory Name: ITAS - KnoxvilleCase No: EGG 23550Lab Sample ID No: AA5895 MSD

QC Report No: _____

Sample Matrix: Feed stock

Contract No: _____

Data Release Authorized By: W.P. WilsonDate Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 1/1

Date Analyzed: _____

Conc/Dil Factor: _____ pH 11Percent Moisture: (Not Decanted) 7.3

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	<u>11</u>
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	<u>11</u>

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	<u>11</u>
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	<u>11</u>

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- | | |
|---|--|
| <p>Value If the result is a value greater than or equal to the detection limit, report the value.</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.</p> | <p>C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides 210 ng-ug in the final extract should be confirmed by GC-MS.</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.</p> <p>Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.</p> |
|---|--|

93]

Form 1

11/86

Laboratory Name ITAS-KNOXVILLE
 Case No EGG 33550

Sample Number
FS-1 QC

Organics Analysis Data Sheet
 (Page 2)

AA5895MSD

Semivolatile Compounds

00619

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 12-15-86
 Date Analyzed 1-9-87
 Conc/Dil Factor: (0.03003 Kg / 2.0ml) 0.9266
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes NA
 Continuous Liquid-Liquid Extraction Yes NA

Dryum
 Factor

< > = matrix spike duplicate

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	< 1500. >
111-44-4	bis(2-Chloroethyl)Ether	660. u
95-57-8	2-Chlorophenol	< 1800. >
541-73-1	1,3-Dichlorobenzene	660. u
105-46-7	1,4-Dichlorobenzene	< 950. >
100-51-6	Benzyl Alcohol	660. u
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	∇
621-64-7	N-Nitroso-Di-n-Propylamine	< 400. >
67-72-1	Hexachloroethane	660. u
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	∇
65-65-0	Benzoic Acid	3200. u
111-91-1	bis(2-Chloroethoxy)Methane	660. u
120-83-2	2,4-Dichlorophenol	660. u
120-82-1	1,2,4-Trichlorobenzene	< 890. >
91-20-3	Naphthalene	660. u
106-47-8	4-Chloroaniline	
87-68-2	Hexachlorobutadiene	∇
59-50-7	4-Chloro-3-Methylphenol	< 1500. >
91-57-6	2-Methylnaphthalene	660. u
77-47-4	Hexachlorocyclopentadiene	660. u
88-06-2	2,4,6-Trichlorophenol	660. u
95-95-4	2,4,5-Trichlorophenol	1300. u
91-58-7	2-Chlorophthalate	660. u
88-74-4	2-Nitroaniline	3200. u
131-11-3	Dimethyl Phthalate	660. u
208-95-8	Acenaphthylene	660. u
99-09-2	3-Nitroaniline	3200. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	< 930. >
51-28-5	2,4-Dinitrophenol	3200. u
100-02-7	4-Nitrophenol	< 700. >
132-64-9	Dibenzofuran	660. u
121-14-2	2,4-Dinitrotoluene	< 790. >
606-20-2	2,6-Dinitrotoluene	660. u
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	∇
100-01-6	4-Nitroaniline	3200. u
534-52-1	4,6-Dinitro-2-Methylphenol	660. u
85-30-6	N-Nitrosodiphenylamine (1)	
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	∇
87-85-5	Pentachlorophenol	< 110. >
85-01-8	Phenanthrene	660. u
120-12-7	Anthracene	660. u
34-74-2	Di-n-Butylphthalate	3200. u
205-44-0	Fluoranthene	660. u
129-00-0	Pyrene	< 1100. >
85-68-7	Butylbenzylphthalate	660. u
91-94-1	3,3'-Dichlorobenzidine	1300. u
56-55-3	Benz[a]Anthracene	660. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benz[b]Fluoranthene	
207-08-9	Benz[k]Fluoranthene	
50-32-8	Benz[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[hi]Anthracene	
191-24-2	Benz[ghi]Perylene	∇

(1) Cannot be separated from diphenylamine

Sample Number
AD-5MS

AA6418MS 00501

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE Case No: EGG-23609
 Lab Sample ID No: AA6418MS QC Report No: _____
 Sample Matrix: Ash Contract No: _____
 Data Release Authorized By: W-T. Wilson Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) 22.8

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
55-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloroethane	NA
10061-02-6	Trans-1, 3-Dichloroethane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10051-01-5	cis-1, 3-Dichloroethane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Conventions

For reporting results to EPA, the following results modifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides > 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible proton beam contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name I.T.A.S. - KNOXVILLE

Case No: EGC-22609

Sample Number

AD-5 MS

AA6413MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

00562

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-22-86

Date Analyzed: 1-10-87

Conc/Dil Factor: (0.03017 kg / 1.0 ml) 0.7720

Percent Moisture (Decanted) NA

GPC Cleanup Yes No

Separatory Funnel Extraction Yes NA

Continuous Liquid - Liquid Extraction Yes NA

< > = matrix spike

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	< 1900. >
111-44-4	bis(2-Chloroethyl)Ether	330. u
95-57-8	2-Chlorophenol	< 1700. >
541-73-1	1,3-Dichlorobenzene	330. u
106-46-7	1,4-Dichlorobenzene	< 1000. >
100-51-6	Benzyl Alcohol	330. u
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
105-44-5	4-Methylphenol	↓
621-64-7	N-Nitroso-Di-n-Propylamine	< 480. >
67-72-1	Hexachloroethane	330. u
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	↓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	330. u
120-82-1	1,2,4-Trichlorobenzene	< 1100. >
91-20-3	Naphthalene	330. u
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	↓
59-50-7	4-Chloro-3-Methylphenol	< 1800. >
91-57-6	2-Methylnaphthalene	330. u
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	↓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-95-8	Acenaphthylene	330. u
39-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	< 1100. >
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	< 1000. >
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	< 790. >
506-20-2	2,6-Dinitrotoluene	330. u
84-66-2	Diethylthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	↓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
85-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	↓
87-85-5	Pentachlorophenol	< 2100. >
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	70. JB
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	< 730. >
85-68-7	Butylbenzylphthalate	330. u
91-94-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benzofluoranthene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-08-9	Benzokifluoranthene	
50-32-8	Benzofluoranthene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(a,h)Perylene	↓

(1)-Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23609

Sample Number
AD-5 MS

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

00504

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-22-86
 Date Analyzed 1-10, 11-87
 Conc/Dil Factor 1/5
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
53-89-3	Gamma-BHC (Lindane)	
78-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-3	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-25-2	Toxaphene	210.00
12874-11-2	Aroclor-1018	100.0
11104-23-2	Aroclor-1221	100.0
11141-18-5	Aroclor-1232	100.0
53469-21-9	Aroclor-1242	100.0
12872-23-8	Aroclor-1248	100.0
11037-13-1	Aroclor-1254	210.00
11035-02-5	Aroclor-1260	320. S

- V_i = Volume of extract injected (ul)
- V_s = Volume of water extracted (ml)
- W_s = Weight of sample extracted (g)
- V_t = Volume of total extract (ul)

V_s _____ W_s 30.17g V_i 20000 ul V_t 5.00, 2.00
 S - spiked compound

Organics Analysis Data Sheet
(Page 1)

Sample Number
AD-5 MSD
AA6419MSD

00384

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23607
 Lab Sample ID No: AA6419MSD QC Report No: _____
 Sample Matrix: Ash Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) 22.8

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	↓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichlorocyclohexene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichlorocyclohexene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	↓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- V** Value If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 2 ug/l is calculated, report as 2J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Sample component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible non-zero blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly derive the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name J. T. A. S. - KNOXVILLE
 Case No: EGG 23609

Sample Number
AD-5 MSD
AA6419MSD

Organics Analysis Data Sheet
 (Page 2)

Semivolatiles Compounds

00585

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-22-86
 Date Analyzed: 1-10-87
 Conc/Dil Factor: (0.03031 kg / 1.0 ml) 0.7720
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes No
 Continuous Liquid - Liquid Extraction Yes No

< > = matrix spike duplicate

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	< 2300. >
111-44-4	bis(2-Chloroethyl)Ether	330. u
95-57-2	2-Chlorophenol	< 2050. >
541-73-1	1,3-Dichlorobenzene	330. u
105-46-7	1,4-Dichlorobenzene	< 1200. >
100-51-6	Benzyl Alcohol	330. u
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39635-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	↓
621-64-7	N-Nitroso-Di-n-Propylamine	< 530. >
67-72-1	Hexachlorocyclopentadiene	330. u
98-95-3	Nitrobenzene	
78-53-1	Isonaphthalene	
98-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	↓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	330. u
120-82-1	1,2,4-Trichlorobenzene	< 1300. >
91-20-3	Naphthalene	330. u
106-47-6	4-Chloroaniline	
87-63-3	Hexachlorobutadiene	↓
59-50-7	4-Chloro-3-Methylphenol	< 1000. >
91-57-6	2-Methylnaphthalene	330. u
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,5-Trichlorophenol	↓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-53-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
209-95-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	< 1300. >
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	< 1200. >
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	< 910. >
806-20-2	2,6-Dinitrotoluene	330. u
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
96-73-7	Fluorene	↓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
82-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	↓
87-86-5	Pentachlorophenol	< 2600. >
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	57.78
205-44-0	Fluoranthene	330. u
129-00-0	Pyrene	< 820. >
85-68-7	Butylbenzylphthalate	330. u
91-94-1	3,3'-Dichlorobenzidine	660. u
55-55-3	Benz[a]Anthracene	330. u
117-61-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benz[b]Fluoranthene	
207-09-9	Benz[k]Fluoranthene	
50-32-8	Benz[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[ah]Anthracene	
191-24-2	Benz[ghi]Perylene	↓

(1) - Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
 Case No EGG 23609

Sample Number
AD-5 MSD

Organics Analysis Data Sheet
 (Page 3)

00587

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-22-86
 Date Analyzed 1-10, 11-87
 Conc Dil Factor 1/5
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-9	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-3	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlorfane	✓
8001-35-2	Toxaphene	210.04
12874-11-2	Aroclor-1018	100.0
11104-23-2	Aroclor-1221	100.0
11141-18-5	Aroclor-1232	100.0
53469-21-9	Aroclor-1242	100.0
12872-29-9	Aroclor-1248	100.0
11097-13-1	Aroclor-1254	210.04
11035-32-5	Aroclor-1260	910.0 S

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.31g V_i 20000ul V_t 5ul, 2ul

S - spiked compound

Sample Number

WB1 45

0312

Organics Analysis Data Sheet
(Page 1)Laboratory Name: ITAS KnoxvilleCase No: EGG 23610Lab Sample ID No: AA 6470 MSRP

QC Report No: _____

Sample Matrix: WATER

Contract No: _____

Data Release Authorized By: W.T. WilandDate Sample Received: 12-17-96

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

} NO VOLATILES
FOR THIS
SAMPLE

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
109-05-4	Vinyl Acetate	
75-27-	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Conventions

For reporting results to EPA, the following results conventions are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 2 ug/l is calculated, report as 2U.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such descriptions attached to the data summary report.

Laboratory Name I.T.A.S. - KNOXVILLE

Case No: EGG 23610

0313

Sample Number

WB1, MS

AA6470MSRP

Organics Analysis Data Sheet
(Page 2)

Semivolatiles Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 1-15-87
Date Analyzed: 1-17-87
Conc/Dil Factor: 0.5L / 2.0 ml
Percent Moisture (Decanted) NA

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes No

< > = Matrix spike

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	< 62. >
111-44-4	bis(2-Chloroethyl)Ether	10.u
95-57-8	2-Chlorophenol	< 150. >
541-73-1	1,3-Dichlorobenzene	10.u
105-46-7	1,4-Dichlorobenzene	< 82. >
100-51-6	Benzyl Alcohol	10.u
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	↓
621-64-7	N-Nitroso-Di-n-Propylamine	< 48. >
67-72-1	Hexachloroethane	10.u
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	↓
65-85-0	Benzoic Acid	50.u
111-91-1	bis(2-Chloroethoxy)Methane	10.u
120-83-2	2,4-Dichlorophenol	10.u
120-82-1	1,2,4-Trichlorobenzene	< 86. >
91-20-3	Naphthalene	10.u
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	↓
59-50-7	4-Chloro-3-Methylphenol	< 58. >
91-57-6	2-Methylnaphthalene	10.u
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	↓
95-95-4	2,4,5-Trichlorophenol	50.u
91-58-7	2-Chloronaphthalene	10.u
88-74-4	2-Nitroaniline	50.u
131-11-3	Dimethyl Phthalate	10.u
208-96-8	Acenaphthylene	10.u
99-09-2	3-Nitroaniline	50.u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	< 110. >
51-28-5	2,4-Dinitrophenol	50.u
100-02-7	4-Nitrophenol	< 69. >
132-64-9	Dibenzofuran	10.u
121-14-2	2,4-Dinitrotoluene	< 75. >
805-20-2	2,6-Dinitrotoluene	10.u
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
95-73-7	Fluorene	↓
100-01-8	4-Nitroaniline	50.u
534-52-1	4,6-Dinitro-2-Methylphenol	10.u
86-30-6	N-Nitrosodiphenylamine (1)	6.5
101-55-3	4-Bromophenyl-phenylether	10.u
118-74-1	Hexachlorobenzene	15.u
87-86-5	Pentachlorophenol	< 120. >
85-01-8	Phenanthrene	10.u
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
205-43-0	Fluoranthene	↓
129-00-0	Pyrene	< 59. >
85-68-7	Butylbenzylphthalate	10.u
91-94-1	3,3'-Dichlorobenzidine	20.u
56-55-3	Benz[a]Anthracene	10.u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benz[b]Fluoranthene	
207-08-9	Benz[k]Fluoranthene	
50-32-8	Benz[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benzod[h]Perylene	↓

(1) Cannot be separated from diphenylamine

WB1 MSD 0335
AA6470 MSD RP

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS Knoxville Case No: EGG 23610
 Lab Sample ID No: AA6470 MSDRP QC Report No: _____
 Sample Matrix: WATER Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

NO VOLATILES
FOR THIS
SAMPLE

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-07-5	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
100-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be exact.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

0337

Laboratory Name I.T.A.S. - KNOXVILLECase No: E-G 23610

Sample Number

WBI MSD

AA6470MSDR12

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 1-15-87Date Analyzed: 1-17-87Conc/Dil Factor: 0.5L / 2.0 mlPercent Moisture (Decanted) NAGPC Cleanup Yes NoSeparatory Funnel Extraction YesContinuous Liquid - Liquid Extraction Yes/NA

< > = Matrix spike duplicate

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	< 74. >
111-44-4	bis(2-Chloroethyl)Ether	10.u
95-57-8	2-Chlorophenol	< 180. >
541-73-1	1,3-Dichlorobenzene	10.u
106-46-7	1,4-Dichlorobenzene	< 96. >
100-51-6	Benzyl Alcohol	10.u
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	↓
621-64-7	N-Nitroso-Di-n-Propylamine	< 61. >
67-72-1	Hexachloroethane	10.u
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	↓
65-85-0	Benzoic Acid	50.u
111-91-1	bis(2-Chloroethoxy)Methane	10.u
120-83-2	2,4-Dichlorophenol	10.u
120-82-1	1,2,4-Trichlorobenzene	< 95. >
91-20-3	Naphthalene	10.u
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	↓
59-50-7	4-Chloro-3-Methylphenol	< 100. >
91-57-6	2-Methylnaphthalene	10.u
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	↓
95-95-4	2,4,5-Trichlorophenol	50.u
91-58-7	2-Chloronaphthalene	10.u
83-74-4	2-Nitroaniline	50.u
131-11-3	Dimethyl Phthalate	10.u
208-96-8	Acenaphthylene	10.u
99-09-2	3-Nitroaniline	50.u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	< 110. >
51-28-5	2,4-Dinitrophenol	50.u
100-02-7	4-Nitrophenol	< 34. >
132-64-9	Dibenzofuran	10.u
121-14-2	2,4-Dinitrotoluene	< 92. >
606-20-2	2,5-Dinitrotoluene	10.u
84-65-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	↓
100-01-6	4-Nitroaniline	50.u
534-52-1	4,6-Dinitro-2-Methylphenol	10.u
85-30-6	N-Nitrosodiphenylamine (1)	7. J
101-55-3	4-Bromophenyl-phenylether	10.u
118-74-1	Hexachlorobenzene	10.u
87-85-5	Pentachlorophenol	< 200. >
85-01-8	Phenanthrene	10.u
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	↓
129-00-0	Pyrene	< 98. >
85-68-7	Butylbenzylphthalate	10.u
91-94-1	3,3'-Dichlorobenzidine	20.u
55-55-3	Benzofluoranthene	10.u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzofluoranthene	
207-08-9	Benzofluoranthene	
50-32-8	Benzofluoranthene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzofluoranthene	↓

(1) Cannot be separated from diphenylamine

Sample Number

POTW MS

Organics Analysis Data Sheet
(Page 1)

0302

Laboratory Name: ITAS - Knoxville Case No: EGC 23610
 Lab Sample ID No: 0696 S1 QC Report No: _____
 Sample Matrix: water Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: _____

Conc/Dil Factor: _____ pH NAPercent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromochloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromolorm	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- blue** If the result is a value greater than or equal to the detection limit, report the value.
- J** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the Ute g. 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng ul in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

943

Form I

11/85

0303

Laboratory Name ITAS Knoxville
 Case No EGG 23610

Sample Number
POTW MS

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-21-86
 Date Analyzed 1-9, 12-87
 Conc Dil Factor 1/20
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		<u>ug/L</u> or <u>ug/Kg</u> (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
78-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-3	4-4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4-4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4-4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.0u
12674-11-2	Aroclor-1016	0.5u
11104-28-2	Aroclor-1221	0.5u
11141-16-5	Aroclor-1232	0.5u
53469-21-9	Aroclor-1242	0.5u
12672-29-8	Aroclor-1248	0.5u
11097-39-1	Aroclor-1254	1.0u
11098-82-5	Aroclor-1260	1.0. S

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500 ul or W_s _____ V_i 10000 ul V_t 5 ul, 2 ul
 S-spiked compound

Sample Number
POTW MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - Knoxville Case No: EGG 23610
 Lab Sample ID No: 0697 SZ QC Report No: _____
 Sample Matrix: Water Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: _____
 Conc/Dil Factor: _____ pH NA
 Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10051-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- V** Value If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U: Compound was analyzed for but not detected. The number is (A) minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3U.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

0327

Laboratory Name ITAS Knoxville
Case No EGG 23010

Sample Number
POTW MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One) GPC Cleanup Yes No
Date Extracted/Prepared 12-21-86 Separatory Funnel Extraction Yes
Date Analyzed 1-9-87 Continuous Liquid-Liquid Extraction Yes
Conc Dil Factor 1/20
Percent Moisture (decanted) _____

CAS Number		<u>ug/l</u> or ug/Kg (Circle One)
319-84-6	Alpha-BHC	N/A
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-3	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.0U
12674-11-2	Aroclor-1016	0.5U
11104-23-2	Aroclor-1221	0.5U
11141-18-5	Aroclor-1232	0.5U
83489-21-9	Aroclor-1242	0.5U
12872-29-6	Aroclor-1248	0.5U
11027-43-1	Aroclor-1254	1.0U
11093-82-5	Aroclor-1260	210. S

V_i = Volume of extract injected (ul)
V_s = Volume of water extracted (ml)
W_s = Weight of sample extracted (g)
V_t = Volume of total extract (ul)

V_s 500 ml or W_s _____ V_t 10000 ul V_i 5 ul, 2 ul
S-spiked compound

Toxaphene/PCB's/Herbicides Analysis Data Summary

Toxaphene/PCB Analysis Data Summary

EGG 23548

Linearity of toxaphene and Aroclor 1016/1260 mix was run at the beginning of the run. Eval B was run at the beginning and after the fifth sample of the run to check for column degradation. The medium level Aroclor 1016/1260 standard and the medium level toxaphene standard were run at the end.

The OADS page 1 was marked NA in the spaces for the single peak pesticides and for chlordane. Analysis of these compounds was not requested and therefore no analysis was performed.

EGG 23549

No method QC samples were prepped with this project.

The samples were composites of stack samples. The units reported were total nanograms (ng). The detection limits were either calculated values or calculated from water CRDLS.

No surrogate was added to these samples.

Samples were analyzed for toxaphene and all the HSL aroclors. The remaining cpds on the HSL pesticide list were marked NA on all OADS report forms (Form 1, p. 3) since there was no request for analysis for these compounds.

EGG 23550

There was an extra blank for the pesticide/PCB samples - a sulfur cleanup blank. Only 3 of the 6 soil samples needed sulfur cleanup so a sulfur blank was added (MBZ).

Analysis for the single peak pesticides and chlordane was not requested and therefore not performed. The corresponding blanks on the OADS form 1, p. 3 have been marked NA.

No spikes were prepped with this project.

EGG 23609

Samples were analyzed for toxaphene and all the HSL aroclors. The remaining cpds on the HSL pesticide list were marked NA on all OADS report forms (Form 1, p. 3) since there was no request for analysis for these compounds.

The spiked samples were spiked with a 100 ppm Aroclor 1260 standard.

EGG 23610

Analysis was done for Toxaphene and the HSL aroclors only. All other compounds were marked NA on the OADS report sheet (Form 1, p. 3) since their analysis was not requested.

The spiked samples POTW-MS and POTW-MSD were spiked with 1.0 ml of a 100 ppm Aroclor 1260 standard.

EGG 23612

No method QC samples were prepped with this project.

The samples were composites of stack samples. The units reported were total nanograms (ng). The detection limits were either calculated values or calculated back from water CRDL's.

No surrogate was added to the samples.

Analysis for single peak pesticides and chlordane was not requested and therefore not performed. These were marked NA on the OADS report sheet (Form I, p. 3) with an NA.

For laboratory data sheets, see Page 3 in the BNA laboratory data set, Exhibit 4.

Herbicide Analysis Data Summary

The detection limits for soil samples was increased due to matrix interferences. The low level soil and water samples were reprepared in an effort to eliminate these interferences. The interference was determined to be from two different sources. Glassware used to prep the soil samples was found to cause interference due to some sort of residue present. This exhibited itself as a large solvent type peak at the beginning of the chromatograms. The second source of interference was the feed stock samples themselves. These samples contained such high levels of herbicide that any glassware used to prep them exhibited carryover even after the glassware was washed and solvent rinsed. The carryover problem was solved by acid washing, high temperature annealing, and additional solvent rinsing.

Laboratory ID: ITAS Knoxville
 Case: EG&G
 Concentration Units: ug/kg

Pesticide/PCB/Herbicide Data Summary
 Feed Stock Samples

Analyte	FS-1	FS-2	FS-3	FS-5	FS-6
TOXAPHENE	170.0 U	180.0 U	170.0 U	320.0 U	320.0 U
PCB 1016	86.0 U	88.0 U	87.0 U	110.0 U	110.0 U
PCB 1221	86.0 U	88.0 U	87.0 U	680.0 U	690.0 U
PCB 1232	86.0 U	88.0 U	87.0 U	87.0 U	88.0 U
PCB 1242	86.0 U	88.0 U	87.0 U	87.0 U	88.0 U
PCB 1248	86.0 U	88.0 U	87.0 U	94.0 U	95.0 U
PCB 1254	170.0 U	180.0 U	170.0 U	170.0 U	170.0 U
PCB 1260	170.0 U	180.0 U	170.0 U	270.0 U	280.0 U
2,4-D	56000.0	3300000.0	120000.0	23000.0	400000.0
2,4,5-T	100000.0	510000.0	220000.0	47000.0	840000.0

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: ECIG
 Concentration Units: ug/kg

Pesticide/PCB/Herbicide Data Summary
 Soil Samples

Analyte	AD-1	AD-2	AD-3	AD-5	AD-6	BS-1
TOXAPHENZ	200.0 U	210.0 U	210.0 U	210.0 U	210.0 U	170.0 U
PCB 1016	98.0 U	110.0 U	100.0 U	100.0 U	100.0 U	87.0 U
PCB 1221	98.0 U	110.0 U	100.0 U	100.0 U	110.0 U	87.0 U
PCB 1232	98.0 U	110.0 U	100.0 U	100.0 U	110.0 U	87.0 U
PCB 1242	98.0 U	110.0 U	100.0 U	100.0 U	110.0 U	87.0 U
PCB 1249	98.0 U	110.0 U	100.0 U	100.0 U	110.0 U	87.0 U
PCB 1254	200.0 J	210.0 U	210.0 U	210.0 U	210.0 U	170.0 U
PCB 1260	200.0 U	210.0 U	210.0 U	210.0 U	210.0 U	170.0 U
2,4-D	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
2,4,5-T	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EC&G
 Concentration Units: ug/L

Pesticide/PCB/Herbicide Data Summary
 Water Samples

Analyte	ENT-B	ENT-1	ENT-2	ENT-5	ENT-6	POTW	WBI	CW
TOXAPHENZ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB 1016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB 1221	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB 1232	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB 1242	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB 1248	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB 1254	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB 1260	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4-D	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-T	0.1 U	0.8 U	1.7 U	2.0 U	0.1 U	0.1 U	0.1 U	0.1 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EGIK
 Concentration Units: ng

Pesticide/PCB/Herbicide Data Summary
 Stack Samples

Analyte	VB-1-XAD	VB-2-XAD	VB-3-XAD	VB-5-XAD	VB-6-XAD	XAD Blk	TBlk 791
TOXAPHENE	1100.0 U	1100.0 U	1100.0 U	4400.0 U	2200.0 U	1100.0 U	1000.0 U
PCB 1016	500.0 U	500.0 U	500.0 U	1500.0 U	750.0 U	500.0 U	500.0 U
PCB 1221	9400.0 U	9400.0 U	9400.0 U	9400.0 U	9400.0 U	9400.0 U	500.0 U
PCB 1232	500.0 U	500.0 U	500.0 U	1000.0 U	510.0 U	500.0 U	500.0 U
PCB 1242	500.0 U	500.0 U	500.0 U	500.0 U	500.0 U	500.0 U	500.0 U
PCB 1248	500.0 U	500.0 U	500.0 U	1300.0 U	650.0 U	500.0 U	500.0 U
PCB 1254	1000.0 U	1000.0 U	1000.0 U	1000.0 U	1000.0 U	1000.0 U	1000.0 U
PCB 1260	1000.0 U	1000.0 U	1000.0 U	3000.0 U	1900.0 U	1000.0 U	1000.0 U
2,4-D	1.0 U	1.0 U	1.2 U	2.0 U	1.0 U	1.0 U	1.0 U
2,4,5-T	0.3 U	0.1 U	0.7 U	0.5 U	0.3 U	0.1 U	0.1 U

* - Concentration Units: ug

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: IIAS Knoxville
 Case: EGIG
 Concentration Units: ug

Pesticide/PCB/Herbicide Data Su. Mary
 Filter Samples

Analyte	14820	14821	14822	14749	17962	17963	17964	17966	17967	17968
2,4-D	2.3	1.0 U	1.0 U	1.2	1.0 U	2.3	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-T	11.0	0.3 U	1.7	2.3	0.2	4.8	0.1 U	1.1	0.1	0.1 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory Name ITAS - Knoxville
 Case No EGG 23550

Sample Number
FS-1

Organics Analysis Data Sheet
 (Page 3)

040

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared: 12/17/86
 Date Analyzed: 1/8, 9/87
 Conc (Dil Factor) 1/10, 20, 1/100000
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	56000.
	2,4,5-T M.E.	100000.

- V₂ = Volume of extract injected (ul)
- V₃ = Volume of water extracted (ml)
- W₃ = Weight of sample extracted (g)
- V₁ = Volume of total extract (ul)

V₂ _____ or W₃ 50.03 g V₁ 5000 ul V₃ 2 ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGC 23550

Sample Number
FS-2

Organics Analysis Data Sheet
 (Page 3)

059

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared: 12/17/86
 Date Analyzed: 1/9/87
 Conc (Oil Factor): 1/100000, 1/200000
 Percent Moisture (decanted): _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	3300000
	2,4,5-T M.E.	510000

- V₁ = Volume of extract injected (ul)
- V₂ = Volume of water extracted (ml)
- W₂ = Weight of sample extracted (g)
- V₁ = Volume of total extract (ul)

V₁ _____ or W₂ 50 g V₁ 5000 ul V₂ 2 ml
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG 23550

074

Sample Number
FS-3

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared: 12/17/86
 Date Analyzed: 1/8, 9/87
 Conc Dil Factor 1/10000 1/100000
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	120000.
	2,4,5-T M.E.	220000.

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_3 = Weight of sample extracted (g)
 V_1 = Volume of total extract (ul)

V_1 _____ or W_3 50.48g V_1 5000 ul V_2 2 ml
 * - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG 23609

Sample Number
FS-5

Organics Analysis Data Sheet
 (Page 3)

050

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/22/86
 Date Analyzed 1/9, 10/87
 Conc Dil Factor 1/10000 1/50000
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-33-7	2,4-D M.E.	23000.
	2,4,5-T M.E.	47000.

V_1 = Volume of extract analyzed (ml)
 (ml extract taken to analyze)

V_2 = Volume of extract extracted (ml)
 (ml extract taken to analyze)

W_3 = Weight of sample extracted (g)
 (g extract taken to analyze)

V_1 = Volume of total extract (ml)

V_2 _____ or W_3 _____ V_1 _____ V_1 _____

* Modified prep; see narrative.

Laboratory Name IIAs - Knoxville
 Case No EEG 23609

AS-6

Organics Analysis Data Sheet
 (Page 3)

000

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared: 12/22/86
 Date Analyzed: 1/9/87
 Conc (Oil Factor) 150000, 150000
 Percent Moisture (deducted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Emulsion Yes

CAS Number		mg/L (ppm) (Circle One)
1928-38-7	2,4-D M.E.	500000
	2,4,5-T M.E.	200000

- V₁ = Volume of extract removed (ml)
- V₂ = Volume of solvent removed (ml)
- W₂ = Weight of solvent removed (g)
- V₁ = Volume of total extract (ml)

V₂ _____ or W₂ 50.87g V₁ 5000ul V₂ 200ul
 * Modified prep; see instruction.

Laboratory Name ITAS - Knoxville
 Case No 666 23550

Sample Number
A0-1

Organics Analysis Data Sheet
 (Page 3)

04

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared: 12/17/86 (1/18/87) Separatory Funnel Extraction Yes
 Date Analyzed: 1/17/87 Continuous Liquid - Liquid Extraction Yes
 Conc/Dil Factor 1, 1/2
 Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 50 U
	2,4,5-T M.E.	< 2 U

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_i _____ W_s 50 g V_t 5000 ul V_s 2 ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No FBG 23550

Sample Number
AD-2

Organics Analysis Data Sheet
 (Page 3)

016

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared: 12/17/86 + 1/16/87 Separatory Funnel Extraction Yes
 Date Analyzed: 1/17/87 Continuous Liquid - Liquid Extraction Yes
 Conc (Oil Factor) 1 1/2
 Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-33-7	2,4-D M.E.	< 20 U
	2,4,5-T M.E.	< 2 U

- V₁ = Volume of extract analyzed (ul)
- V₂ = Volume of water extracted (ml)
- W₂ = Weight of sample extracted (g)
- V₁ = Volume of total extract (ul)

V₁ _____ or W₂ 50.26g V₁ 5000 ul V₂ 2 ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No E66 23550

Sample Number
AD-3

Organics Analysis Data Sheet
 (Page 3)

028

Pesticides/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/17/86 + 1/16/87
 Date Analyzed 1/17/87
 Conc (Oil Factor) 1.1/2
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 20 U
	2,4,5-T M.E.	< 2 U

V₁ = Volume of extract injected (ul)
 V₂ = Volume of water extracted (ml)
 W₂ = Weight of sample extracted (g)
 V₁ = Volume of total extract (ul)

V₁ _____ W₂ 50.43g V₁ 5000 ul V₂ 2 ul
 #. Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No 666 23609

013

Sample Number
AD-5

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared 12/22/86 + 1/16/87 Separatory Funnel Extraction Yes
 Date Analyzed 1/17/87 Continuous Liquid - Liquid Extraction Yes
 Conc (Dil Factor) 1, 1/2
 Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-33-7	2,4-D M.E.	< 20. U
	2,4,5-T M.E.	< 2. U

- V₁ = Volume of extract injected (ul)
- V₂ = Volume of water extracted (ml)
- W₂ = Weight of sample extracted (g)
- V₁ = Volume of total extract (ul)

V₁ _____ or W₂ 50.223 V₁ 5000ul V₂ 2ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG 23609

Sample Number
AD-6

Organics Analysis Data Sheet
(Page 3)

025

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup Yes No
Date Extracted/Prepared 12/2/86 + 1/16/87 Separatory Funnel Extraction Yes
Date Analyzed 1/17/87 Continuous Liquid - Liquid Extraction Yes
Conc Dil Factor 1, 1/2
Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 0.1
	2,4,5-T M.E.	< 0.1

V_i = Volume of extract injected (ul)
V_s = Volume of water extracted (ml)
W_s = Weight of sample extracted (g)
V_t = Volume of total extract (ul)

V_s _____ or W_s 50.56g V_i 5000 ul V_t 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG 2366

Sample Number
BS-1

Organics Analysis Data Sheet
 (Page 3)

037

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/22/86 1/14/87
 Date Analyzed 1/17/87
 Conc (Oil Factor) _____
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 20 U
	2,4,5-T M.E.	< 2 U

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s 50.05g V_i 5000ul V_t 2ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG 23549

Sample Number
VB-1-F

Organics Analysis Data Sheet
 (Page 3)

VB-1-XAD
VB-1-PW
VB-1-C

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared: 12/22/86
 Date Analyzed: 1/10/87
 Conc (Dil Factor) 1
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

~~00113~~
 00001

CAS Number	^{MS} 2,4-D M.E. Pesticide/PCBs (Circle One)	
1928-38-7	2,4-D M.E.	< 1. U
	2,4,5-T M.E.	< 0.3 U

- V₁ = Volume of extract analyzed (ul)
- V₂ = Volume of water extracted (ml)
- W₂ = Weight of sample extracted (g)
- V₁ = Volume of total extract (ul)

V₂ _____ or W₂ _____ V₁ 5000ul V₁ 2ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No E66 23549

Sample Number
VB-2-F
VB-2-XAD
VB-2-PW
VB-2-C

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared: 12/22/86
 Date Analyzed: 1/10/11/87
 Conc (Dil Factor) 1 45
 Percent Moisture (decanted) _____

GPC Cleanup Yes No 00012
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes

CAS Number	^{ug/g soil} (Circle One)
1928-38-7 2,4-D M.E.	<1.0
2,4,5-T M.E.	<2.1

- V₁ = Volume of extract injected (ul)
- V₂ = Volume of water extracted (ml)
- W₂ = Weight of sample extracted (g)
- V₁ = Volume of total extract (ul)

V₂ _____ or W₂ _____ V₁ 5000 ul V₁ 2 ul
 * - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No E66 23549

Sample Number
VB-3-F
VB-3-XA0
VB-3-PW
VB-3-C

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/22/86
 Date Analyzed: 1/10/87
 Conc (Dil Factor) 1/15
 Percent Moisture (decanted) _____

GPC Cleanup Yes No 00030
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number	Pesticide Name	mg/g (Circle One)
1928-38-	2,4-D H.E.	<u>< 1.2 U</u>
	2,4,5-T H.E.	<u>< 0.7 U</u>

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_2 = Weight of sample extracted (g)
 V_1 = Volume of total extract (ul)

V_2 _____ or W_2 _____ V_1 5000ul V_1 2ul
 * - Modified prep; see narrative.

Laboratory Name ITAC - Knoxville

Case No 644-3617

Sample Number
VB-5-F

VB-5-XAD
VB-5-PW
VB-5-C

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)

GPC Cleanup Yes No

Date Extracted/Prepared 12/22/86

Separatory Funnel Extraction Yes

Date Analyzed 1/12/87

Continuous Liquid-Liquid Extraction Yes

Conc (Dil Factor) 1 1/5

Percent Moisture (decanted) _____

CAS Number	^{MS} Pesticide Name (Circle One)
6928-38-7	2,4-D M.E. <u>< 2.11</u>
	2,4,5-T M.E. <u>< 1.511</u>

00022

- V_1 = Volume of extract injected (ul)
- V_2 = Volume of water extracted (ml)
- W_2 = Weight of sample extracted (g)
- V_1 = Volume of total extract (ul)

V_2 _____ or W_2 _____ V_1 50000 ul V_1 2 ul

* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EEG 23612

Sample Number
VB-6-F

Organics Analysis Data Sheet
 (Page 3)

VB-6-XAB
VB-6-PW
VB-6-C

Pesticide/PCBs

00038

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 10/22/86
 Date Analyzed 11/10/87
 Conc (Dil Factor) 1.45
 Percent Moisture (deca-nted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS
 Number

mg
ug/g of kg
 (Check One)

0928-38-7	2,4-D M.E.	< 1 U
	2,4,5-T M.E.	< 1.3 U

- V_i = Volume of extract injected (ul)
- V_s = Volume of water extracted (ml)
- W_s = Weight of sample extracted (g)
- V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 50000 ul V_t 2 ul
 * - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG 23611

Sample Number
14820

Organics Analysis Data Sheet
 (Page 3)

0

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/23/86
 Date Analyzed 1/10 1/18/87
 Conc (Dil Factor) 450 4500
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS
 Number

2.3
 (Circle One)

1928-38-71	2,4-D M.E.	2.3
	2,4,5-T M.E.	11.

V_1 = Volume of extract injected (ul)
 V_d = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ W_s _____ V_1 500 ul V_d 2 ml
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville

Case No E6623611

Sample Number
14821

Organics Analysis Data Sheet
(Page 3)

020

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/23/76
Date Analyzed 1/10/87
Conc Dil Factor 1/10
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS
Number

mg
ug/g
(Circle One)

1928-38-7	2,4-D M.E.	<u>< 1.0</u>
	2,4,5-T M.E.	<u>1.3/1</u>

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_1 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_1 _____ or W_1 _____ V_2 extract V_1 2 ul
* Modified pmo; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG 23611

Sample Number
14822

Organics Analysis Data Sheet
 (Page 3)

030

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared 12/23/76 Separatory Funnel Extraction Yes
 Date Analyzed 1/10/77 Continuous Liquid - Liquid Extraction Yes
 Conc (Dil Factor) 1/20
 Percent Moisture (decanted) _____

CAS Number	^{ug} mg/l or ^{ug} kg (Circle One)
1928-33-7	2,4-D M.E. < 1.11
	2,4,5-T M.E. 1.7

V₁ = Volume of extract injected (ul)
 V₂ = Volume of water extracted (ml)
 W₁ = Weight of sample extracted (g)
 V₁ = Volume of total extract (ul)

V₁ _____ W₁ _____ V₂ 200 ul V₁ 10 ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No E66 33611

Sample Number
14749

Organics Analysis Data Sheet
 (Page 3)

040

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/23/76
 Date Analyzed 1/11/87
 Conc (Dil Factor) 1/2
 Percent Moisture (decahed) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS
 Number

mg
 Spiking
 (Circle One)

1928-38-7	2,4-D M.E.	1.2
	2,4,5-T M.E.	2.3

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_1 = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_1 _____ V_2 _____ V_t _____
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No E66 23611

Sample Number
17962

Organics Analysis Data Sheet
 (Page 3)

050

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/23/86
 Date Analyzed: 1/10, 11/1/87
 Conc (Oil Factor) 1/5
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS
 Number

2,4,5-T
 (Circle One)

1928-38-7	2,4-D M.E.	< 1 //
	2,4,5-T M.E.	0.2

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_2 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_2 _____ or W_2 _____ V_1 500 ul V_1 2 ul

* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EE 23611

Sample Number
17963

Organics Analysis Data Sheet
 (Page 3)

060

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/23/86
 Date Analyzed 1/16/87
 Conc. Dil Factor 150
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes

GAS Number	^{ug} ug/liter of kg (Circle One)
1928-38-7 2,4-D M.E.	2.3
2,4,5-T M.E.	4.1

V₁ = Volume of extract injected (ul)
 V₂ = Volume of water extracted (ml)
 W₂ = Weight of sample extracted (g)
 V₁ = Volume of total extract (ul)

V₂ _____ or W₂ _____ V₁ 5000 ul V₁ 0 ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23611

Sample Number
17964

Organics Analysis Data Sheet
(Page 3)

070

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/23/86
Date Analyzed 1/10, 11/87
Conc (Dil Factor) 1/2
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS
Number

ug
ug/g
(Circle One)

1928-38-7	2,4-D M.E.	< 1. U
	2,4,5-T M.E.	< 1. U

V_i = Volume of extract injected (μ l)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (μ l)

V_s _____ or W_s _____ V_i 5000 μ l V_t 2 ml
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No E86 23611

Sample Number
17966

Organics Analysis Data Sheet
 (Page 3)

079

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/23/86
 Date Analyzed 1/10, 11/87
 Conc (Oil Factor) 1/10, 1/50
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS
 Number

ms
sp. 100 mg
 (Circle One)

1928-33-7	2,4-D M.E.	<u>< 1.0</u>
	2,4,5-T M.E.	<u>1.1</u>

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_2 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_2 _____ or W_2 _____ V_1 5000 ul V_1 2 ul

* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG 23611

Sample Number
17967

Organics Analysis Data Sheet
(Page 3)

095

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/23/86
Date Analyzed 1/10, 11/87
Conc Dil Factor 1/2
Percent Moisture (decaited) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS
Number

mg
ug/gm of soil
(Circle One)

CAS Number	Pesticide Name	Concentration
1928-38-7	2,4-D M.E.	< 1.0
	2,4,5-T M.E.	0.1

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_3 = Weight of sample extracted (g)
 V_1 = Volume of total extract (ul)

V_2 _____ or W_3 _____ V_1 500 ul V_1 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23611

Sample Number
17968

Organics Analysis Data Sheet
(Page 3)

105

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/23/86
Date Analyzed: 1/10, 11/27
Conc Dil Factor 1/5
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS Number	Concentration	μg/g or % (Circle One)
1928-38-7	2,4-D M.E.	< 1. U
	2,4,5-T M.E.	< 0.1 U

V₂ = Volume of extract injected (ul)
V₃ = Volume of water extracted (ml)
W₃ = Weight of sample extracted (g)
V₁ = Volume of total extract (ul)

V₂ _____ or W₃ _____ V₁ 5000 ul V₃ 2.2 l
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG 23548

Sample Number
ENT-B

Organics Analysis Data Sheet
(Page 3)

00003

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 1/7 & 9/87
Conc/Dil Factor 1/10 1/100
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS Number		<u>ug/l or ug/kg</u> (Circle One)
1928-38-7	2,4-D M.E.	<1 U
	2,4,5-T M.E.	<0.1 U

- V₁ = Volume of extract injected (ul)
- V₂ = Volume of water extracted (ml)
- W_s = Weight of sample extracted (g)
- V_t = Volume of total extract (ul)

v₂ 850 ml or w_s _____ v₁ 5000 ul v_t 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG 23548

Sample Number
ENT-2

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

00036

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared: 12/17/86
 Date Analyzed: 1/7 8/87
 Conc. (Dil Factor) 1/10 1/100
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		<u>ug/Low ug/Kg</u> (Circle One)
1928-38-7	2,4-D M.E.	< 1 U
	2,4,5-T M.E.	< 1.7 U

V₁ = Volume of extract injected (ul)
 V₂ = Volume of water extracted (ml)
 W₂ = Weight of sample extracted (g)
 V₁ = Volume of total extract (ul)

V₂ 870 ml W₂ _____ V₁ 5000 ul V₁ 2 ul
 * - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EKK 23610

Sample Number
EAT-5

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00003

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/23-29/86
Date Analyzed 1/15/87
Conc Dil Factor 1/50 1/100
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid-Liquid Extraction Yes

CAS Number		<u>ug/lb</u> <u>ug/Kg</u> (Circle One)
1928-38-7	2,4-D M.E.	< 3. //
	2,4,5-T M.E.	< 2 //

- V₁ = Volume of extract injected (ul)
- V₂ = Volume of water extracted (ml)
- W₂ = Weight of sample extracted (g)
- V₁ = Volume of total extract (ul)

V₂ 1000 ml or W₂ _____ V₁ 5000 ul V₁ 2 ul
* Modified prep; see narrative.

Laboratory Name IAS - Knoxville
Case No EGG 23610

Sample Number
ENT 6

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00019

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22-29/86
Date Analyzed 1/15, 16, 17/87
Conc (Dil Factor) 1/20, 1/50
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS Number		<u>ug/l</u> or ug/Kg (Circle One)
1928-38-7	2,4-D M.E.	< 1.0
	2,4,5-T M.E.	< 0.10

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 500 ul V_t 200
* Modified prep; see narrative.

Laboratory Name ITAC - Knoxville
 Case No EEB 73610

Sample Number
POT w

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

00038

Concentration * Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared 12/22-20/16 Separatory Funnel Extraction Yes
 Date Analyzed 1/15, 11/19/7 Continuous Liquid-Liquid Extraction Yes
 Conc (Dil Factor) 1
 Percent Moisture (decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
1928-38-7	2,4-D M.E.	< 1 //
	2,4,5-T M.E.	< 0.1 //

V₁ = Volume of extract injected (ul)
 V₂ = Volume of water extracted (ml)
 W₁ = Weight of sample extracted (g)
 V₁ = Volume of total extract (ul)

V₂ 5000 ul or W₁ _____ V₁ 5000 ul V₁ 2 ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No ES 23610

Sample Number
CW

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

00047

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/22-29/76
 Date Analyzed 1/15/77
 Conc Dil Factor 1
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
1928-38-7	2,4-D H.E.	< 1.0
	2,4,5-T H.E.	< 0.10

V₁ = Volume of extract injected (ul)
 V₂ = Volume of water extracted (ml)
 W₁ = Weight of sample extracted (g)
 V_T = Volume of total extract (ul)

V₁ 200 ul W₁ _____ V₂ 5000 ul V_T 200 ul
 # - Modified prep; see narrative.

Laboratory Name LIAS - Knoxville
 Case No FEE 23610

Sample Number
WB-1

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

0005-

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/22-29/86
 Date Analyzed 1/15, 16, 17, 18/87
 Conc Dil Factor 1
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS
 Number

ug/l or ug/Kg
 (Circle One)

1928-38-7	2,4-D M.E.	< 1. U
	2,4,5-T M.E.	< 0.1 U

V_i = Volume of extract injected (ul)
 V_w = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_i 977 ul or W_s _____ V_w 2000 ul V_t 2 ul
 * Modified prep; see narrative.

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG 23549

Contractor EDS - Knoxville

Contract No. _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	MPD	OC LIMITS RECOVERY
VGA S40 SAMPLE NO.	1,1-Dichloroethane								14 01-168
	1,1,1-Trichloroethane								14 21-140
	1,1,2-Trichloroethane								13 78-137
	1,2-Dichloroethane								13 78-128
B4 S40 SAMPLE NO.	Benzene								11 70-127
	1,2,4-Trichlorobenzene								20 39-88
	Acetophenone								31 40-118
	2,4-Dinitrochlorobenzene								30 34-89
ACID S40 SAMPLE NO.	Phenol								31 30-177
	2-Nitrophenol								30 41-116
	4-Nitrophenol								20 30-87
	2,4-Dinitrophenol								20 0-000
Herb. S40 SAMPLE NO.	2,4-D.H.E.	0.97							43 12-89
	2,4,5-T.H.E.			0.22	34				43 27-175
									42 11-07
									50 10-59
Spiked Blank									18 82-133
									28 42-131
									27 49-120
									18 21-128
								21 50-129	
								27 39-137	

ASTERISKED VALUES ARE OUTSIDE OC LIMITS

MPD: VOA: _____ out of _____ outside OC limits
 B/M: _____ out of _____ outside OC limits
 ACID: _____ out of _____ outside OC limits
 PEST: _____ out of _____ outside OC limits

RECOVERY: VOA: _____ out of _____ outside OC limits
 B/M: _____ out of _____ outside OC limits
 ACID: _____ out of _____ outside OC limits
 PEST: _____ out of _____ outside OC limits

Comments: Results shown are for a spiked D.I. water blank (lab no. 066185).

10000

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG 23550 Contractor ITAS Knoxville Contract No. _____

Low Level _____ Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	NPD	NPD OC RECOVERY
VOA SMO SAMPLE NO.	1,1-Dichloroethane								33 60-112
	Trichloroethane								28 62-137
	Chlorobenzene								21 60-133
	Toluene								31 60-139
B/M SMO SAMPLE NO.	Benzene								21 62-152
	1,2,4-Trichlorobenzene								23 33-101
	Acetophenone								19 31-137
	2,4-Dinitrotoluene								47 38-69
ACID SMO SAMPLE NO.	Pyrene								33 35-147
	N-Nitrosodiphenylamine								39 41-170
	1,4-Dioxinobenzene								27 32-104
	Paracetamol								47 17-109
PEST SMO SAMPLE NO.	Phenol								35 28-89
	2-Chlorophenol								69 25-107
	4-Chloro-2-Methylphenol								33 23-103
	5-Nitrophenol								59 11-114
HCB SMO SAMPLE NO.	2,4-D H.C.B.	19		7.8	53				29 42-177
	2,4,5-T.H.C.B.								43 37-131
Spiked Blank									39 32-138
									48 42-159
									53 23-134

* ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

NPD: VOA: out of _____; outside OC limits
 B/M: out of _____; outside OC limits
 ACID: out of _____; outside OC limits
 PEST: out of _____; outside OC limits
 Comments: Results shown are for a spiked blank (lab # 0663-53)

RECOVERY: VOA: out of _____; outside OC limits
 B/M: out of _____; outside OC limits
 ACID: out of _____; outside OC limits
 PEST: out of _____; outside OC limits

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG23550 Contractor _____ Contract No. _____

Low Level _____ Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (µg/kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	MPO	MPO OF RECOVERY
VOA S&O SAMPLE NO.	1,1-Dichloroethane								22 69-177
	Trichloroethane								24 61-137
	Chlorobenzene								31 60-133
	Toluene								21 60-139
BIN S&O SAMPLE NO.	Benzene								21 61-147
	1,2,4-Trichlorobenzene								23 23-197
	Acetophenone								18 31-137
	2,3-Dinitrofluorene								47 28-69
ACID S&O SAMPLE NO.	Pyrene								33 35-147
	1-Nitro-2-naphthol								28 41-228
	1,4-Dichlorobenzene								27 28-104
	Phenol								47 17-109
SAMPLE NO.	2-Chlorophenol								35 28-60
	4-Chloro-3-methylphenol								60 25-107
	4-Nitrophenol								33 28-103
	2,4-D H.E.	19	56000	99000	*	99000	*	19	50 48-137
SAMPLE NO.	2,4,5-T H.E.		100000	240000	*	100000	*	1-19-77	43 34-231
									38 31-134
									43 47-138
									63 23-134

* ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

RPD: VOA: _____ out of _____; outside OC limits
 B/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits
 COMMENTS: * Spike Concentration too low compared to sample concentration. Sample not having excess.

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG 23609 Contractor ITAS Knoxville Contract No. _____

Low Level _____ Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSU	% REC	NPD	NPD OF RECOVERY
VOA S&O SAMPLE NO.	1,1-Dichloroethane								27 29.177
	1,1,1-Trichloroethane								24 23.137
	Chlorobenzene								21 20.133
	Toluene								21 29.139
B/B S&O SAMPLE NO.	1,2,4-Trichlorobenzene								21 22.147
	Acetophenone								19 24.107
	2,4-Dinitrotoluene								19 31.137
	Pyrene								47 28.69
ACID S&O SAMPLE NO.	4-Hydroxyphenylpropanoic acid								33 35.147
	1,4-Dichlorobenzene								38 41.178
	Pentachlorobenzene								27 28.104
	Phenol								47 17.109
H&P S&O SAMPLE NO.	2-Chlorophenol								35 20.80
	4-Chloro-2-Methylphenol								60 25.107
	4-Methylphenol								33 28.103
	2,4-D.H.P.	19	20	11	58	11	87	43	50 63.177
SAMPLE NO.	2,4,5-T.H.P.	21	22	11	52	11	86	48	50 35.177
									43 37.157
									38 31.134
									45 47.129
									60 23.134

* ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

NPD: VOA: _____ out of _____; outside OC limits
 S/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits
 Comments: _____

 RECOVERY: VOA: _____ out of _____; outside OC limits
 S/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits

002

995

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG-23610

Contractor LMS Knoxville

Contract No. _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	OC LIMITS RPD RECOVERY
VDA S-W SAMPLE NO.	1,1-Dichloroethane								14 81-148
	Trichloroethane								14 71-120
	Dichlorobenzene								13 78-139
	Toluene								17 78-125
B/N S-W SAMPLE NO.	1,2,4-Trichlorobenzene								11 78-127
	Acetophenone								28 38-88
	1,4-Dinitrobenzene								31 49-119
	Pyrene								32 21-88
ACID S-W SAMPLE NO.	1,2-Dichlorobenzene								31 28-127
	Perchloroethylene								32 41-118
	Hexachlorocyclopentadiene								22 30-27
	Hexachlorobenzene								60 8-101
Herb. S-W SAMPLE NO.	2,4-D M.E.	2.6	1.5	53	76	1.2			42 27-123
	2,4,5-T M.E.								42 23-87
									50 10-58
									15 58-123
								28 40-131	
								18 45-126	
								31 58-111	
								27 38-122	

* ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

RPD: VOA: _____ out of _____; outside OC limits
 B/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits

RECOVERY: VOA: _____ out of _____; outside OC limits
 B/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits

Comments: _____

00002

DICER

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG 93611

Contractor LIMS Knoxville

Contract No. _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (µg/l)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPO	QC LIMITS & RECOVERY
VOA S&O SAMPLE NO.	1,1-Dichloroethane								14 81-146
	Trichloroethene								14 71-128
	Chloroethene								13 75-129
	Toluene								12 72-124
	Benzene								11 78-127
S/M S&O SAMPLE NO.	1,2,4-Trichlorobenzene								23 39-82
	Acetophenone								31 40-118
	2,4-Dinitrotoluene								38 24-88
	Phenol								31 29-177
	4-Nitrophenol								39 41-119
ACID S&O SAMPLE NO.	1,4-Dichlorobenzene								20 32-87
	Acetophenone								89 9-107
	Phenol								47 17-39
	2-Chlorophenol								40 27-173
	4-Chlorophenol								42 23-87
Met h. S&O SAMPLE NO.	1,2,4-Trichlorobenzene								59 19-88
	Acetophenone								15 58-137
	Phenol								23 40-129
	2-Chlorophenol								19 62-128
	4-Chlorophenol								21 56-171

* ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPO: VOA: _____ out of _____ : outside QC limits
 B/N: _____ out of _____ : outside QC limits
 ACID: _____ out of _____ : outside QC limits
 PEST: _____ out of _____ : outside QC limits

RECOVERY: VOA: _____ out of _____ : outside QC limits
 B/N: _____ out of _____ : outside QC limits
 ACID: _____ out of _____ : outside QC limits
 PEST: _____ out of _____ : outside QC limits

Comments: Sample was a Spiked Blank

Laboratory Name ITAS - Knoxville
 Case No EGG 23609

Sample Number
MB-1 EGG 23609

Organics Analysis Data Sheet
 (Page 3)

187

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/22/86
 Date Analyzed 1/9, 10/87
 Conc (Dil Factor) 1/2 1/10
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
1929-38-7	2,4-D M.E.	< 20 U
	2,4,5-T M.E.	< 7 U

V₁ = Volume of extract injected (ul)
 V₂ = Volume of water extracted (ml)
 W₁ = Weight of sample extracted (g)
 V_T = Volume of total extract (ul)

V₁ _____ or W₁ 50 g V₂ 5000 ul V_T 2 ul
 * Modified prep; see narrative.

Laboratory Name IAS - Knoxville
 Case No EGG 23609

Sample Number
AB-3 EGG 23609

Organics Analysis Data Sheet
 (Page 3)

203

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Data Extracted/Prepared 11/17/86 1/16/87
 Date Analyzed 1/17/87
 Conc (Dil Factor) 1/2, 1/5
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 20. U
	2,4,5-T M.E.	< 2. U

- V₁ = Volume of extract injected (ul)
- V₂ = Volume of water extracted (ml)
- W₂ = Weight of sample extracted (g)
- V₁ = Volume of total extract (ul)

V₁ _____ W₂ 50 g V₁ 5000 ul V₂ 2 ml
 * Modified prep; see narration.

Laboratory Name ITAS - Knoxville
Case No E66 23649

Sample Number
Spiked Blank

Organics Analysis Data Sheet
(Page 3)

004

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/86
Date Analyzed: 1/9/87
Conc (Dil Factor) 1/5
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or (ug/kg) (Circle One)
1928-38-7	2,4-D M.E.	7.5
	2,4,5-T M.E.	1.35

V₁ = Volume of extract injected (ul)
V₂ = Volume of water extracted (ml)
W₁ = Weight of sample extracted (g)
V_T = Volume of total extract (ul)

V₁ _____ or W₁ 50 g V₂ 5000 ul V_T 2 ml
* Modified prep; see narrative.

Laboratory Name _____
Case No E66 23548

Sample Number
MBZ-E66 23548

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00075

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 1/7/87
Conc (Dil Factor) 1
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS Number		<u>ug/l</u> or ug/Kg (Circle One)
1928-38-7	2,4-D M.E.	<1 U
	2,4,5-T M.E.	<0.1 U

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 5000 ul V_t 2 ul
* - Modified prep; see narrative.

Laboratory Name _____
Case No EGG 23548

Sample Number
SPIKED BLANK

Organics Analysis Data Sheet
(Page 3)

00082

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 1/7.8/87
Conc (Dil Factor) 1/5 1/10
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS Number		<u>ug/l or ug/Kg</u> (Circle One)
1928-38-7	2,4-D M.E.	<1. U
	2,4,5-T M.E.	<1.1 U

V₁ = Volume of extract injected (ul)
V₂ = Volume of water extracted (ml)
W₁ = Weight of sample extracted (g)
V_T = Volume of total extract (ul)

V₁ 1000 ul or W₁ _____ V₂ 5000 ul V_T 2 ul
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG 23550

183

Sample Number
MB3-EGG 23550

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/17/86
Date Analyzed 1/19/87
Conc (Dil Factor) 1
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 2.0 U
	2,4,5-T M.E.	< 2.0 U

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_3 = Weight of sample extracted (g)
 V_1 = Volume of total extract (ul)

V_2 _____ or W_3 50g V_1 5000 ul V_1 2 ul
* - Modified prep; see narrative.

Laboratory Name _____
Case No EGG 23550

173

Sample Number
Spiked Blank

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 1/9/87
Conc (Dil Factor) 1/5
Percent Moisture (decanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes NA
Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	9.8 S
	2,4,5-T M.E.	2.3 S

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_3 = Weight of sample extracted (g)
 V_1 = Volume of total extract (ul)

V_2 _____ or W_3 50 V_1 5000 ul V_1 2 ul
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG 23550

201

Sample Number
FS-1 GC MS

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/17/86
 Date Analyzed 1/9/87
 Conc (Dil Factor) 1/50000, 1/300000
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	120000.5
	2,4,5-T M.E.	240000.5

- V_i = Volume of extract injected (ul)
- V_s = Volume of water extracted (ml)
- W_s = Weight of sample extracted (g)
- V_t = Volume of total extract (ul)

V_s _____ or W_s 50.09g V_i 5000ul V_t 2ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EEG 23550

Sample Number
FS1 GC MS0

Organics Analysis Data Sheet
 (Page 3)

217

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared: 12/17/86
 Date Analyzed: 1/9, 10/87
 Conc. Dil Factor 1/20000 1/100000
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
1928-38-7	2,4-D M.E.	99000.5
	2,4,5-T M.E.	180000.5

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_2 = Weight of sample extracted (g)
 V_1 = Volume of total extract (ul)

V_2 _____ or W_2 50.28g V_1 5000 ul V_1 2 ul
 *- Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23609

Sample Number
AD-5 GC MS

Organics Analysis Data Sheet
(Page 3)

214

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup Yes No
Date Extracted/Prepared 12/22/86 - 1/16/87 Separatory Funnel Extraction Yes
Date Analyzed 1/17/87 Continuous Liquid - Liquid Extraction Yes
Conc Dil Factor 15, 1/10
Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	11.5
	2,4,5-T H.E.	11.5

- V₂ = Volume of extract injected (ul)
- V₃ = Volume of water extracted (ml)
- W₃ = Weight of sample extracted (g)
- V₁ = Volume of total extract (ul)

V₂ _____ or W₃ 50.58g V₁ 5000ul V₃ 2ml
* Modified prep; see narrative.

Laboratory Name 1.52 - 8004V:1.10
Case No EGG 23609

Sample Number
AO-5 GC MS-D

Organics Analysis Data Sheet
(Page 3)

226

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup Yes No
Date Extracted/Prepared: 12/22/86 1/16/87 Separatory Funnel Extraction Yes
Date Analyzed: 1/17/87 Continuous Liquid-Liquid Extraction Yes
Conc (Dil Factor) 1/5 1/10
Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	// S
	2,4,5-T M.E.	// S

- V₁ = Volume of extract injected (ul)
- V₂ = Volume of water extracted (ml)
- W₃ = Weight of sample extracted (g)
- V₁ = Volume of total extract (ul)

V₂ _____ W₃ 50.47g V₁ 5000ul V₁ 2.44d
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG-23610

Sample Number
1117 EGG-23610

Organics Analysis Data Sheet
(Page 3)

00099

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/86 + 1/14/87
Date Analyzed 1/15/87
Conc (Dil Factor) 1
Percent Moisture (uncanted) _____

GPC Cleanup Yes No
Separatory Funnel Extraction Yes
Continuous Liquid - Liquid Extraction Yes

CAS
Number

ug/l or ug/Kg
(Circle One)

CAS Number	Compound	Concentration
1928-38-7	2,4-D M.E.	< 1.0
	2,4,5-T M.E.	< 1.0

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 5000 ul V_t 2 ul
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG 23610

Sample Number
POTW QCM5

Organics Analysis Data Sheet
 (Page 3)

00109

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 1/14/87
 Date Analyzed 1/15+16/87
 Conc (Dil Factor) 1/5
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/l or ug/Kg (Circle One)
1928-38-7	2,4-D M.E.	1.55
	2,4,5-T M.E.	<0.1 U

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_i 500 ul or W_s _____ V_t 500 ul V_s 2 ul

* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG 23610

Sample Number
POTW GC HSD

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

0019

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 1/14/87
 Date Analyzed 1/15/87
 Conc/Dil Factor 45
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ug/lb ug/kg (Circle One)
1929-38-7	2,4-D M.E.	1.25
	2,4,5-T M.E.	0.14

V₁ = Volume of extract injected (ul)
 V₂ = Volume of water extracted (ml)
 W₃ = Weight of sample extracted (g)
 V₁ = Volume of total extract (ul)

V₁ 500 ul or W₃ _____ V₂ 500 ul V₁ 2 ul
 * Modified prep; see narrative.

Laboratory Name ITAC - Knoxville
 Case No EGG 23611

Sample Number
MB-1 EGG 23611

Organics Analysis Data Sheet
 (Page 3)

200

Pesticide/PCBs

Concentration * Low Medium (Circle One)
 Date Extracted/Prepared 12/23/86
 Date Analyzed 1/9 + 10/87
 Conc Dil Factor 1/5 1/50
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		^{mg} ppm ppb (Circle One)
1928-38-7	2,4-D M.E.	<1 <u>ll</u>
	2,4,5-T M.E.	<0.1 <u>ll</u>

V₁ = Volume of extract injected (ul)
 V₂ = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V₁ 5000 ul V₂ 2 ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville

Case No. EEG-23611

217

Sample Number
Spiked Blank

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)

GPC Cleanup Yes No

Date Extracted/Prepared 12/23/86

Separatory Funnel Extraction Yes

Date Analyzed 1/9, 16/87

Continuous Liquid - Liquid Extraction Yes

Conc (Oil Factor) 1/5, 1/20

Percent Moisture (decanted) _____

CAS
Number

^{mg}
ug/liter of kg
(Circle One)

1928-38-7	2,4-D M.E.	1.6 S
	2,4,5-T M.E.	<1. U

V₁ = Volume of extract injected (ul)

V₂ = Volume of water extracted (ml)

W₂ = Weight of sample extracted (g)

V₁ = Volume of total extract (ul)

V₂ _____ or W₂ _____ V₁ 5000 ul V₁ 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG-23612

Sample Number
XAB Blank

Organics Analysis Data Sheet
 (Page 3)

00001

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared 12/22/86 Separatory Funnel Extraction Yes
 Date Analyzed 1/10/87 Continuous Liquid - Liquid Extraction Yes
 Conc Dil Factor 1
 Percent Moisture (decanted) _____

CAS Number	ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E. < 1. U
	2,4,5-T M.E. < 1. U

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 50000 ul V_t 2 ul
 * Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
 Case No EGG - 23612

Sample Number
T BIK 791
REAGENT BLANK

Organics Analysis Data Sheet
 (Page 3)

00012

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared 12/22/96 Separatory Funnel Extraction Yes
 Date Analyzed 1/10/97 Continuous Liquid - Liquid Extraction Yes
 Conc (Dil Factor) 1
 Percent Moisture (decanted) _____

CAS Number		¹¹⁹ ug/L or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 1.0
	2,4,5-T M.E.	< 0.10

- V_i = Volume of extract injected (ul)
- V_s = Volume of water extracted (ml)
- W_s = Weight of sample extracted (g)
- V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 50000 ul V_t 2 ul
 * Modified prep; see narrative.

Metals Analysis Data Summary

CASE SUMMARY

I. Metals normally analyzed by inductively coupled argon plasma spectroscopy (ICAP) were analyzed by atomic absorption spectroscopy due to a malfunctioning ICAP unit.

II. Lead was detected in preparation blanks for liquid and solid samples at a concentration less than the contract required detection limit (CRDL) and close to the instrument detection limit (IDL): 1.2 micrograms/liter and 2.4 micrograms/liter respectively.

III. Cacodylic Acid - Determination of arsenic in an organic compound

0.5 grams of $(\text{CH}_3)_2\text{AsO}_2 \cdot \text{Na} \cdot 3\text{H}_2\text{O}$ were prepared as if the solid were a client submitted solid. The results for arsenic analysis are as follows:

<u>Observed (ppm)</u>	<u>Theoretical (ppm)</u>	<u>% Recovery</u>
1067.	877.	122

IV. Spike Recovery - In summary, the following elements have been labeled as nonconformance:

<u>Element</u>	<u>Lab ID #</u>	<u>Client #</u>	<u>Matrix</u>
Pb	AA6455/AA6455-spike	ENT-5	Liquid
Hg	AA6455/AA6455-spike	ENT-5	Liquid
Se	AA6455/AA6455-spike	ENT-5	Liquid
As	AA5920/AA5927	FS-1	Solid

Comments: Low recovery factors for the single standard addition method were observed during mercury analysis for the ENT-5 spike. A spike of 0.004 ppm mercury was added because the normal spike of 0.001 ppm could not be seen.

V. Duplicate Preparation - In summary, the following elements have been labeled as nonconformance:

<u>Element</u>	<u>Lab ID #</u>	<u>Client #</u>	<u>Matrix</u>
Hg	AA6455/AA6455-spike	ENT-5	Liquid
Hg	AA5920/AA5927	FS-1	Solid
Pb	AA5920/AA5927	FS-1	Solid

Laboratory ID: ITAS Knoxville
 Case: EC&G
 Concentration Units: µg/kg

Metals Data Summary
 Feed Stock Samples

Analyte	FS-1	FS-2	FS-3	FS-5	FS-6
ARSENIC	8.20	5.50	9.80	4.10	6.20
BARIUM	31.00 J	61.00	39.00	23.00 J	27.00 J
CADMIUM	0.20 U	0.20 U	0.20 U	0.20 U	0.23 J
CHROMIUM	8.10	8.40	7.30	5.80	5.70
LEAD	10.00	7.00	12.00	7.00	6.60
MERCURY	0.04	0.02 U	0.02	0.12	0.02 U
NICKEL	2.00 U	2.10 J	2.00 U	1.70 J	2.00 U
SELENIUM	0.20 U	0.20 U	0.20	0.20 U	0.20 U
SILVER	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EG&G
 Concentration Units: mg/kg

Metals Data Summary
 Soil Samples

Analyte	AD-1	AD-2	AD-3	AD-5	AD-6	BS-1
ARSENIC	3.60	2.70	3.90	3.60	3.50	4.90
BARIUM	30.00 J	24.00	48.00	27.00	12.00 J	10.00 J
CADMIUM	0.20 U	0.20 U	0.20 U	0.20 U	0.17 J	0.20 U
CHROMIUM	4.10	4.90	7.60	5.80	5.90	3.10
LEAD	3.40	4.20	4.00	4.50	6.20	1.60
MERCURY	0.02 U	0.02 U	0.03	0.02 U	0.02 U	0.02 U
NICKEL	2.00 U	1.80 J	2.60 J	2.00 J	2.40 J	2.10 J
SELENIUM	0.20	0.20	0.20 U	0.20 U	0.20 U	0.20 U
SILVER	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EC&G
 Concentration Units: ug/L

Metals Data Summary
 ENT Water Samples

Analyte	ENT-8	ENT-1	ENT-2	ENT-5	ENT-6
ARSENIC	196.00	404.00	273.00	308.00	196.00
BARIUM	93.00 J	142.00 J	443.00	92.00 J	208.00
CADMIUM	11.00	20.00	27.00	1.00 U	3.80 J
CHROMIUM	122.00	174.00	148.00	234.00	322.00
LEAD	85.00	99.00	82.00	37.00	48.00
MERCURY	0.41	1.60	1.40	1.70	3.00
NICKEL	154.00	151.00	169.00	36.00 J	46.00
SELENIUM	182.00	185.00	169.00	46.00	87.00
SILVER	0.86 J	0.55 J	0.10 U	0.48 J	1.10 J

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EG&G
 Concentration Units: ug/L

Metals Data Summary
 Water Samples

Analyte	BB-1	BB5	BB6	POTW	CN	WBI
ARSENIC	2.10 J	1.00 U	4.00 U	13.00	5.60 J	1.00 U
BARIUM	56.00 J	20.00 U	20.00 U	204.00	449.00	20.00 U
CADMIUM	1.00 U	1.00 U	1.00 U	12.00	1.00 U	1.00 U
CHROMIUM	27.00	38.00	35.00	10.00 U	32.00	10.00 U
LEAD	49.00	35.00	17.00	2.50 J	173.00	4.90 J
MERCURY	0.52	0.20 U	0.20 U	0.40 U	13.00	0.20 U
NICKEL	2650.00	2420.00	2760.00	30.00 J	20.00 U	10.00 U
SELENIUM	6.00 U	1.00 U	1.00 U	60.00	60.00 U	1.00 U
SILVER	0.10 U	0.10 U	0.10 U	0.10 U	7.00 U	0.10 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

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0 0
 0 1

Date 1-16-87

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name TPAS - Knoxville
 SOW No. _____

Case No. _____
 Q.C. Report No. EGG 23548-550-609

Sample Numbers

<u>EPA No.</u>	<u>Lab ID No.</u>	<u>EPA No.</u>	<u>Lab ID No.</u>
<u>ENT-8</u>	<u>AA5940</u>	<u>AD-2</u>	<u>AA5924</u>
<u>ENT-1</u>	<u>AA5941</u>	<u>AD-3</u>	<u>AA5925</u>
<u>ENT-2</u>	<u>AA5942</u>	<u>ES-6</u>	<u>AA6438</u>
<u>BB-1</u>	<u>AA5943</u>	<u>AD-6</u>	<u>AA6439</u>
<u>ES-1</u>	<u>AA5920</u>	<u>ES-5</u>	<u>AA6440</u>
<u>ES-2</u>	<u>AA5921</u>	<u>AD-5</u>	<u>AA6441</u>
<u>ES-3</u>	<u>AA5922</u>	_____	<u>AA6445 (kw)</u>
<u>AD-1</u>	<u>AA5943</u>	_____	_____

Comments:

AV - Used as designation for analysis by
cold vapor technique for mercury

ICP interelement and background corrections applied? Yes No .

If yes, corrections applied before _____ or after _____ generation of raw data.

Footnotes:

NR - Not required by contract at this time

Form I:

3 Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract-required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP), A (for Flame AA) or F (for Furnace AA).

U - Indicates element was analyzed for but not detected. Report with the instrument detection limit value (e.g., 10U).

E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.

S - Indicates value determined by Method of Standard Addition.

N - Indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

M - Indicates duplicate injection results exceeded control limits.

Indicate method used: P for ICP; A for Flame AA and F for Furnace.

Form I

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Sample Management Office
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703/557-2490 FTS: 8-557-2490

EPA Sample No.
FS-1

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS-Knoxville

CASE NO. _____

SOIL NO. _____

LAB SAMPLE ID. NO. AS 5920

QC REPORT NO. EGG 23549-500-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
Matrix: Water _____ Soil Sludge _____ Other _____

ug/L or (mg/kg dry weight) (Circle One)

- | | |
|------------------------------------|---------------------------------|
| 1. Aluminum _____ | 13. Magnesium _____ |
| 2. Antimony _____ | 14. Manganese _____ |
| 3. Arsenic <u>32</u> s N E | 15. Mercury <u>0.04</u> * AV |
| 4. Barium <u>[31] [2000] (K) A</u> | 16. Nickel <u>2.0</u> A |
| 5. Beryllium _____ | 17. Potassium _____ |
| 6. Cadmium <u>0.20</u> A | 18. Selenium <u>0.20</u> E |
| 7. Calcium _____ | 19. Silver <u>0.020</u> E |
| 8. Chromium <u>81</u> A | 20. Sodium _____ |
| 9. Cobalt _____ | 21. Thallium _____ |
| 10. Copper _____ | 22. Vanadium _____ |
| 11. Iron _____ | 23. Zinc _____ |
| 12. Lead <u>10</u> * E | Percent Solids (2) <u>92.66</u> |
- Cyanide _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Whaley

Form I

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EPA Sample No.
FS-2 /

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME TRM - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPL. ID. NO. 14592

QC REPORT NO. EGL 23548-550-609-01

Elements Identified and Measured

Concentration: Low _____ Medium _____
Matrix: Water _____ Soil Sludge _____ Other _____

ug/L or ug/kg dry weight (Circle One)

- | | |
|-----------------------------------|---------------------------------------|
| 1. <u>Aluminum</u> | 13. <u>Magnesium</u> |
| 2. <u>Antimony</u> | 14. <u>Manganese</u> |
| 3. <u>Arsenic</u> <u>55 N E F</u> | 15. <u>Mercury</u> <u>0.02 U W AV</u> |
| 4. <u>Barium</u> <u>61 A</u> | 16. <u>Nickel</u> <u>[Z 1] A</u> |
| 5. <u>Beryllium</u> | 17. <u>Potassium</u> |
| 6. <u>Cadmium</u> <u>0.2 U A</u> | 18. <u>Selenium</u> <u>0.2 U E</u> |
| 7. <u>Calcium</u> | 19. <u>Silver</u> <u>0.02 U F</u> |
| 8. <u>Chromium</u> <u>8.4 A</u> | 20. <u>Sodium</u> |
| 9. <u>Cobalt</u> | 21. <u>Thallium</u> |
| 10. <u>Copper</u> | 22. <u>Vanadium</u> |
| 11. <u>Iron</u> | 23. <u>Zinc</u> |
| 12. <u>Lead</u> <u>7.0 E F</u> | Percent Solids (I) <u>91.35</u> |

Cyanide _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Libbey

Form I

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EPA Sample No.
FS-3

Date 1-16-97

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITPS - Knoxville

CASE NO. _____

SCW NO. _____

LAB SAMPLE ID. NO. 44593Z

QC REPORT NO. ECC 73549-55D-60A-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
Matrix: Water _____ Soil ✓ Sludge _____ Other _____

ug/L or (ug/kg dry weight) (Circle One)

1. Aluminum				19. Magnesium			
2. Antimony				14. Manganese			
3. Arsenic	99	N5	F	15. Mercury	0.02	+	AV
4. Barium	39		A	16. Nickel	2.0		A
5. Beryllium				17. Potassium			
6. Cadmium	0.24		A	18. Selenium	0.2		F
7. Calcium				19. Silver	0.074		F
8. Chromium	7.3		A	20. Sodium			
9. Cobalt				21. Thallium			
10. Copper				22. Vanadium			
11. Iron				23. Zinc			
12. Lead	12	+	F	Percent Solids (2)	91.56		
Cyanide							

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Whaley

Form I

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EPA Sample No.

FS-5 ✓

Date 1-16-97

INORGANIC ANALYSIS DATA SHEET

LAB NAME IMS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6440QC REPORT NO. EGG 23549-SS-609-0Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water _____ Soil Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum _____	13. Magnesium _____
2. Antimony _____	14. Manganese _____
3. Arsenic <u>4.1</u> * N F	15. Mercury <u>0.12</u> * AV
4. Barium <u>[23.]</u> A	16. Nickel <u>[1.7]</u> A
5. Beryllium _____	17. Potassium _____
6. Cadmium <u>0.20</u> A	18. Selenium <u>0.20</u> F
7. Calcium _____	19. Silver <u>0.020</u> F
8. Chromium <u>5.9</u> A	20. Sodium _____
9. Cobalt _____	21. Thallium _____
10. Copper _____	22. Vanadium _____
11. Iron _____	23. Zinc _____
12. Lead <u>7.0</u> * F	Percent Solids (Z) <u>90.96</u>

Cyanide _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Whaley

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Form I

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EPA Sample No.
FS-6

Date 1-16-97

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITS-Kaysville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6438

QC REPORT NO. ELC 23548-550-609-61

Elements Identified and Measured

Concentration: Low _____ Medium _____
Matrix: Water _____ Soil Sludge _____ Other _____

ug/L or cg/kg dry weight (Circle One)

- | | |
|---------------------------------|---------------------------------|
| 1. Aluminum _____ | 13. Magnesium _____ |
| 2. Antimony _____ | 14. Manganese _____ |
| 3. Arsenic <u>6.2 * N F</u> | 15. Mercury <u>0.02u * AV</u> |
| 4. Barium <u>[27] F (low) A</u> | 16. Nickel <u>2u A</u> |
| 5. Beryllium _____ | 17. Potassium _____ |
| 6. Cadmium <u>[0.23] A</u> | 18. Selenium <u>0.2u F</u> |
| 7. Calcium _____ | 19. Silver <u>0.02u F</u> |
| 8. Chromium <u>5.7 A</u> | 20. Sodium _____ |
| 9. Cobalt _____ | 21. Thallium _____ |
| 10. Copper _____ | 22. Vanadium _____ |
| 11. Iron _____ | 23. Zinc _____ |
| 12. Lead <u>6.6 * F</u> | Percent Solids (Z) <u>91.16</u> |
- Cyanide _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Whaley

Form I

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EPA Sample No.
AD-1 -

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAs - Knoxville

CASE NO. _____

LAB NO. _____

LAB SAMPLE ID. NO. AA5923

QC REPORT NO. EGG 23347-350-609-1

Elements Identified and Measured

Concentration: Low _____ Medium _____
Matrix: Water _____ Soil Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic <u>3.6 Ns F</u>	15. Mercury <u>0.02u * AV</u>
4. Barium <u>[20] A</u>	16. Nickel <u>2u A</u>
5. Barvllium	17. Potassium
6. Cadmium <u>0.2u A</u>	18. Selenium <u>0.2 F</u>
7. Calcium	19. Silver <u>0.02u F</u>
8. Chromium <u>4.1 A</u>	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead <u>3.4 * F</u>	Percent Solids (2) <u>91.53</u>
Cyanide _____	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Kathleen [Signature]

Form I

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EPA Sample No.
AD-2

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA5924

QC REPORT NO. EGG L3548-550-609-610

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water _____ Soil Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum _____	13. Magnesium _____
2. Antimony _____	14. Manganese _____
3. Arsenic <u>2.7Ns F</u>	15. Mercury <u>0.02u + AV</u>
4. Barium <u>24 A</u>	16. Nickel <u>[1.8] A</u>
5. Beryllium _____	17. Potassium _____
6. Cadmium <u>0.2u A</u>	18. Selenium <u>0.2 F</u>
7. Calcium _____	19. Silver <u>0.02u F</u>
8. Chromium <u>4.9 A</u>	20. Sodium _____
9. Cobalt _____	21. Thallium _____
10. Copper _____	22. Vanadium _____
11. Iron _____	23. Zinc _____
12. Lead <u>4.2 * F</u>	Percent Solids (2) <u>74.98</u>
Cyanide _____	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Whaley

Form I

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EPA Sample No.

AD-3

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOV NO. _____

LAB SAMPLE ID. NO. A25925QC REPORT NO. EGG 23549-550-609-0

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water _____ Soil Sludge _____ Other _____

ug/L or ng/kg dry weight (Circle One)

1. Aluminum		13. Magnesium	
2. Antimony		14. Manganese	
3. Arsenic	3.9 N ₃ F	15. Mercury	0.03 + AU
4. Barium	43 A	16. Nickel	[2.6] A
5. Beryllium		17. Potassium	
6. Cadmium	0.2U A	18. Selenium	0.2U F
7. Calcium		19. Silver	0.02U F
8. Chromium	76 A	20. Sodium	
9. Cobalt		21. Thallium	
10. Copper		22. Vanadium	
11. Iron		23. Zinc	
12. Lead	4.0 * F	Percent Solids (2)	78.04
Cyanide			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Whaley

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Form I

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 703/557-2490 FTS: 8-557-2490

EPA Sample No.

AD-5 ✓

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6441QC REPORT NO. 666 23547-530-609-610

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water _____ Soil Sludge _____ Other _____

ug/L or (ug/kg dry weight) (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 36.5 N F	15. Mercury 0.02U AV
4. Barium 27 A	16. Nickel [2.0] A
5. Beryllium	17. Potassium
6. Cadmium 0.2U A	18. Selenium 0.2U F
7. Calcium	19. Silver 0.02U F
8. Chromium 5.9 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 4.5 * F	Percent Solids (%) 74.11
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Whaley

- 8

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Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/357-2490 FTS: 8-557-2490

EPA Sample No.
AD-6

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6439

QC REPORT NO. ECL 23541-550-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
Matrix: Water _____ Soil Sludge _____ Other _____

ug/L or ug/kg dry weight (Circle One)

- | | | | |
|--------------|---|--------------------|------------|
| 1. Aluminum | _____ | 13. Magnesium | _____ |
| 2. Antimony | _____ | 14. Manganese | _____ |
| 3. Arsenic | 3.5 s N F | 15. Mercury | 0.02u * AV |
| 4. Barium | [¹² / ₁₀] (w) A | 16. Nickel | [2.4] A |
| 5. Beryllium | _____ | 17. Potassium | _____ |
| 6. Cadmium | [0.17] A | 18. Selenium | 0.2u F |
| 7. Calcium | _____ | 19. Silver | 0.02u F |
| 8. Chromium | 5.9 A | 20. Sodium | _____ |
| 9. Cobalt | _____ | 21. Thallium | _____ |
| 10. Copper | _____ | 22. Vanadium | _____ |
| 11. Iron | _____ | 23. Zinc | _____ |
| 12. Lead | 6.2 * F | Percent Solids (2) | 79.48 |
- Cyanide _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Kathleen Whaley

Form I

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EPA Sample No.

BS-1 ✓

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6449QC REPORT NO. EGG 23548-550-604-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water _____ Soil Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic <u>4.9</u> N F	15. Mercury <u>0.02 u</u> * AV
4. Barium <u>[10.]</u> A	16. Nickel <u>[2.1]</u> A
5. Beryllium	17. Potassium
6. Cadmium <u>0.2 u</u> A	18. Selenium <u>0.2 u</u> F
7. Calcium	19. Silver <u>0.02 u</u> F
8. Chromium <u>3.1</u> A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead <u>1.6</u> * F	Percent Solids (%) <u>90.50</u>
Cyanide _____	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Wilkey

B - 8

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Form I

U.S. EPA Contract Laboratory Program
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 703/557-2490 FTS: 8-557-2490

EPA Sample No.

ENT-8

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA5240

QC REPORT NO. EGG 23543-310-609-61

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum _____	13. Magnesium _____
2. Antimony _____	14. Manganese _____
3. Arsenic 196 F	15. Mercury 0.41 N * AV
4. Barium [93] A	16. Nickel 154 A
5. Beryllium _____	17. Potassium _____
6. Cadmium 11 A	18. Selenium 152 g N F
7. Calcium _____	19. Silver [0.96] (0.96) F
8. Chromium 122 A	20. Sodium _____
9. Cobalt _____	21. Thallium _____
10. Copper _____	22. Vanadium _____
11. Iron _____	23. Zinc _____
12. Lead 95 g N F	Precant Solids (X) _____
Cyanide _____	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager

Kathleen Whaley

Form I

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703/557-2490 FTS: 8-557-2490

EPA Sample No.
ENT-1

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS-Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA5741

QC REPORT NO. EGG 63543-550-609-610

Elements Identified and Measured

Concentration: Low _____ Medium _____
Matrix: Water Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

- | | |
|---------------------------|--|
| 1. Aluminum _____ | 13. Magnesium _____ |
| 2. Antimony _____ | 14. Manganese _____ |
| 3. Arsenic <u>404 s F</u> | 15. Mercury <u>1.6 N * AV</u> |
| 4. Barium <u>[42] A</u> | 16. Nickel <u>151 A</u> |
| 5. Beryllium _____ | 17. Potassium _____ |
| 6. Cadmium <u>30. A</u> | 18. Selenium <u>195. * N F</u> |
| 7. Calcium _____ | 19. Silver <u>[0.55] Y (kw) F</u> |
| 8. Chromium <u>174 A</u> | 20. Sodium _____ |
| 9. Cobalt _____ | 21. Thallium _____ |
| 10. Copper _____ | 22. Vanadium _____ |
| 11. Iron _____ | 23. Zinc _____ |
| 12. Lead <u>99 s N F</u> | Percent Solids (2) _____ |
- Cyanide _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katharina Whaley

Form I

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 703/557-2490 FTS: 8-557-2490

EPA Sample No.
ENT-2 ✓

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. 245842 QC REPORT NO. EGG 23343-550-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum _____	13. Magnesium _____
2. Antimony _____	14. Manganese _____
3. Arsenic <u>273</u> <u>S</u> <u>F</u>	15. Mercury <u>1.4 N*</u> <u>AV</u>
4. Barium <u>443</u> <u>A</u>	16. Nickel <u>169</u> <u>A</u>
5. Beryllium _____	17. Potassium _____
6. Cadmium <u>(low) 27</u> <u>1000</u> <u>A</u>	18. Selenium <u>NA</u> <u>N</u> <u>F</u>
7. Calcium _____	19. Silver <u>0.1 U</u> <u>F</u>
8. Chromium <u>148</u> <u>A</u>	20. Sodium _____
9. Cobalt _____	21. Thallium _____
10. Copper _____	22. Vanadium _____
11. Iron _____	23. Zinc _____
12. Lead <u>32</u> <u>S</u> <u>N</u> <u>F</u>	Percent Solids (%) _____
Cyanide _____	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Wilby

Form I

U.S. EPA Contract Laboratory Program
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 P.O. Box 818 - Alexandria, VA 22313
 703/557-2490 FTS: 8-557-2490

EPA Sample No.

ENT-5

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITPS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6455QC REPORT NO. EGG 23548-550-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum _____	13. Magnesium _____
2. Antimony _____	14. Manganese _____
3. Arsenic <u>309</u> s F	15. Mercury <u>1.7</u> * N A V
4. Barium <u>[92]</u> A	16. Nickel <u>[36.]</u> A
5. Beryllium _____	17. Potassium _____
6. Cadmium <u>116</u> A	18. Selenium <u>46.</u> s N F
7. Calcium _____	19. Silver <u>[0.49]</u> s F
8. Chromium <u>234</u> A	20. Sodium _____
9. Cobalt _____	21. Thallium _____
10. Copper _____	22. Vanadium _____
11. Iron _____	23. Zinc _____
12. Lead <u>37</u> s N F	Percent Solids (Z) _____
Cyanide _____	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

 _____Lab Manager Katherine Whaley

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Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
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 703/557-2490 FTS: 8-557-2490

EPA Sample No.
ENT-6-

Date 1-16-97

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS-Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. A-1458

QC REPORT NO. ELG 23547-550-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum			13. Magnesium	
2. Antimony			14. Manganese	
3. Arsenic	196	F	15. Mercury	3.0 s N A V
4. Barium	208	A	16. Nickel	46 A
5. Beryllium	[33]		17. Potassium	
6. Cadmium (KW) MC		A	18. Selenium	37 s N F
7. Calcium			19. Silver	[11] s F
8. Chromium	322	A	20. Sodium	
9. Cobalt			21. Thallium	
10. Copper			22. Vanadium	
11. Iron			23. Zinc	
12. Lead	48	s N F	Percent Solids (Z)	
Cyanide				

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Kent B...

Form I

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 703/557-2490 FTS: 8-557-2490

EPA Sample No.

DOTW -

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS-Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6461QC REPORT NO. EGG 23541-550-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum		13. Magnesium	
2. Antimony		14. Manganese	
3. Arsenic	13 S F	15. Mercury	0.4 U *NAV
4. Barium	2.04 A	16. Nickel	[30.] A
5. Beryllium		17. Potassium	
6. Cadmium	12. A	18. Selenium	60 S NF
7. Calcium		19. Silver	0.1 U F
8. Chromium	104 A	20. Sodium	
9. Cobalt		21. Thallium	
10. Copper		22. Vanadium	
11. Iron		23. Zinc	
12. Lead	[25] S NF	Percent Solids (%)	
Cyanide			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: (1) Mercury analysis - matrix interferences - sample diluted by 1/2 to increase recovery factor for single addition spike - new detection limit < 0.4 ug/L - see sheet # 1261 (1/8)

Lab Manager Katherine Whaley

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
 P.O. Box 518 - Alexandria, VA 22313
 703/357-2490 FTS: 8-357-2490

EPA Sample No.

CW

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6468

QC REPORT NO. 66 23549-550-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic [5.6] s F	15. Mercury 13 + NAV
4. Barium 449 A	16. Nickel 20u A
5. Beryllium	17. Potassium
6. Cadmium 1u A	18. Selenium 60u N F
7. Calcium	19. Silver 7u F
8. Chromium 3Z A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 173 s + NF	Percent Solids (%)
Cyanide _____	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: (1) Nickel: matrix interferences raised the detection limit from the instrument detection limit of <0.01 ppm to <0.03 ppm
 (2) Silver: matrix interferences - detection limit raised from <0.1 ppb to <1 ppb

Lab Manager K. Robinson

(3) Selenium: detection limit higher again due to matrix interferences

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
 P.O. Box 818 - Alexandria, VA 22313
 703/557-2490 FTS: 8-557-2490

EPA Sample No.

WBI -

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6474QC REPORT NO. ECG 23549-550-609-61Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum _____	15. Magnesium _____
2. Antimony _____	14. Manganese _____
3. Arsenic <u>1u</u> <u>F</u>	15. Mercury <u>0.2u</u> <u>NAU</u>
4. Barium <u>20u</u> <u>A</u>	16. Nickel <u>10u</u> <u>A</u>
5. Beryllium _____	17. Potassium _____
6. Cadmium <u>1u</u> <u>A</u>	18. Selenium <u>1u</u> <u>N</u> <u>F</u>
7. Calcium _____	19. Silver <u>0.1u</u> <u>F</u>
8. Chromium <u>10u</u> <u>A</u>	20. Sodium _____
9. Cobalt _____	21. Thallium _____
10. Copper _____	22. Vanadium _____
11. Iron _____	23. Zinc _____
12. Lead <u>[4.4]</u> <u>N</u> <u>F</u>	Percent Solids (%) _____
Cyanide _____	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine L. Lohrey

Form I

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 703/557-2490 FTS: 8-557-2490

EPA Sample No.

BB-1

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. A25343QC REPORT NO. EGC 23549-550-609

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. <u>Aluminum</u>	13. <u>Magnesium</u>
2. <u>Antimony</u>	14. <u>Manganese</u>
3. <u>Arsenic</u> [2.1] s F	15. <u>Mercury</u> 0.52N* AV
4. <u>Barium</u> [36.] A	16. <u>Nickel</u> 2650 A
5. <u>Beryllium</u>	17. <u>Potassium</u>
6. <u>Cadmium</u> 1U A	18. <u>Selenium</u> 6U N F
7. <u>Calcium</u>	19. <u>Silver</u> 0.1U F
8. <u>Chromium</u> 27 A	20. <u>Sodium</u>
9. <u>Cobalt</u>	21. <u>Thallium</u>
10. <u>Copper</u>	22. <u>Vanadium</u>
11. <u>Iron</u>	23. <u>Zinc</u>
12. <u>Lead</u> 49 s N F	Percent Solids (S)
Cyanide _____	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: (1) Selenium - detection limit higher than normal (1U)
due to matrix interferences

Lab Manager Katherine Libbey

* - *

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
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 703/557-2490 FTS: 8-557-2490

EPA Sample No.

BBS

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. 221475QC REPORT NO. EGG 23548-550-609-61

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water Soil _____ Sludge _____ Other _____

ug/L or ug/kg dry weights (Circle One)

1. Aluminum _____	13. Magnesium _____
2. Antimony _____	14. Manganese _____
3. Arsenic <u>1U</u> <u>F</u>	15. Mercury <u>0.2U</u> <u>*NAU</u>
4. Barium <u>30U</u> <u>A</u>	16. Nickel <u>242.0</u> <u>A</u>
5. Beryllium _____	17. Potassium _____
6. Cadmium <u>1U</u> <u>A</u>	18. Selenium <u>1U</u> <u>N</u> <u>F</u>
7. Calcium _____	19. Silver <u>0.1U</u> <u>F</u>
8. Chromium <u>33</u> <u>A</u>	20. Sodium _____
9. Cobalt _____	21. Thallium _____
10. Copper _____	22. Vanadium _____
11. Iron _____	23. Zinc _____
12. Lead <u>35</u> <u>A</u> <u>+NF</u>	Percent Solids (X) _____
Cyanide _____	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Whaley

Form I

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EPA Sample No.

BBL -

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA 64-76

QC REPORT NO. 766 23549-570-609-2

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum		13. Magnesium	
2. Antimony		14. Manganese	
3. Arsenic	4U E	15. Mercury	0.2U #NAV
4. Barium	LOW A	16. Nickel	2760 A
5. Beryllium		17. Potassium	
6. Cadmium	1U A	18. Selenium	1U NF
7. Calcium		19. Silver	0.1U F
8. Chromium	35 A	20. Sodium	
9. Cobalt		21. Thallium	
10. Copper		22. Vanadium	
11. Iron		23. Zinc	
12. Lead	17 NF	Percent Solids (Z)	
Cyanide			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Atomic analysis: detection limit higher than
 manual (1U) due to matrix interferences

Lab Manager

Katherine Wilkey

043

Form VI

Q. C. Report No. ERG 43549-550-609-610

DUPLICATES

LAB NAME ITAS-Knoxville

CASE NO. _____

DATE 1-16-87EPA Sample No. FS-1Lab Sample ID No. MA5920/MA5926Units mg/kg dry weightMatrix Soil

Compound	Control Limit ¹	Sample(S)	Duplicate(D)	RPD ²
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic		3.2*	6.7*	20
4. Barium		[31.]	[23.]	NC
5. Beryllium				
6. Cadmium		0.2u	0.2u	NC
7. Calcium				
8. Chromium		8.1	8.3	2
9. Cobalt				
10. Copper				
11. Iron				
12. Lead		10	7.4	30 *
13. Magnesium				
14. Manganese				
15. Mercury		0.04	0.03	29 *
16. Nickel		2u	2u	NC
17. Potassium				
18. Selenium		0.2u	0.2u	NC
19. Silver		0.02u	0.02u	NC
20. Sodium				
21. Thallium				
22. Vanadium				
23. Zinc				
Other:				
Cyanide				

* Out of Control

¹ To be added at a later date.

$$^2 \text{ RPD} = \frac{|S - D|}{((S + D)/2)} \times 100$$

NC = Non calculable RPD due to value(s) less than CRDL

8 - 13

1049

Form VI

Q. C. Report No. EGC 23548-550-609-610

DUPLICATES

LAB NAME ITAS - Knoxville

CASE NO. _____

DATE 1-16-57EPA Sample No. ENT-5Lab Sample ID No. AA6455/AA6455-521Units µg/lMatrix Liquid

Compound	Control Limit ¹	Sample(S)	Duplicate(D)	RPD ²
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic		309.5	277	11.
4. Barium		[92.]	[88.]	NC
5. Beryllium				
6. Cadmium	(K) ⁺	112	112	NC
7. Calcium				
8. Chromium		234.	223.	5.
9. Cobalt				
10. Copper				
11. Iron				
12. Lead		37.5	31.5	18
13. Magnesium				
14. Manganese				
15. Mercury		1.7	2.5	38 *
16. Nickel		36.	36.	0
17. Potassium				
18. Selenium		46.5	51.5	10
19. Silver		[0.12] s	[0.15] s	NC
20. Sodium				
21. Thallium				
22. Vanadium				
23. Zinc				
Other:				
Cyanide				

* Out of Control

¹ To be added at a later date.² RPD = $[(S - D) / ((S + D) / 2)] \times 100$

NC - Non calculable RPD due to value(s) less than CRDL

Form V

040

Q. C. Report No. EGG 23549 - 650-609-610

SPIKE SAMPLE RECOVERY

LAB NAME ITAS - Knoxville

CASE NO. _____

DATE 1-16-87

EPA Sample No. ENT-5

Lab Sample ID No. A46455/A46455-

Units µg/l

Matrix Liquid

Compound	Control Limit IR	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	IR ¹
Metals:					
1. Aluminum	75-125				
2. Antimony	-				
3. Arsenic	-	393.5	309.5	20	NR
4. Barium	-	2230	[92]	2000	107
5. Beryllium	-				
6. Cadmium	-	34	14	50	109
7. Calcium	-				
8. Chromium	-	422	234	200	94
9. Cobalt	-				
10. Copper	-				
11. Iron	-				
12. Lead	-	44.5	37.5	20	35 N
13. Magnesium	-				
14. Manganese	-				
15. Mercury	-	7.4	17	4.0	143 N
16. Nickel	-	427	26	400	98
17. Potassium	-				
18. Selenium	-	72.5	46.5	10	260 N
19. Silver	-	9.9	[0.49]	10	93
20. Sodium	-				
21. Thallium	-				
22. Vanadium	-				
23. Zinc	-				
Other:					
Cyanide	-				

¹ IR = [(SSR - SR)/SA] x 100

"N" - out of control

"NR" - Not required

Comments: Concentration of arsenic in original sample is
> 4x the spiking concentration
 8-12

VOST Analysis Data Summary

VOST Analysis Data Summary

Samples 14799-14805 and 14800-14803 VOST tube runs were lost due to instrument failure during analysis.

Instrument instability required recalibration and delayed the analysis of VOST-1-C, 2-C and 3-C until 6 days past the 14 day period from receipt. However, the results are similar to those for runs VOST 5-C and 6-C which were run within this holding time.

Concentration by ng total

Compounds	VOST-1		VOST-2		VOST-3		VOST-3		VOST-3		VOST-6		Blanks				
	Pair 1	Pair 2	Pair 3	Cond.	Pair 1	Pair 2	Pair 3	Cond.	Pair 1	Pair 2	Pair 3	Cond.	Pair 1	Pair 2	Pair 3	Cond.	Field Method
Chloroacetaldehyde	110.	150.	17913	14793	14793	14793	14793	14793	14793	14793	14793	14793	14793	14793	14793	14793	
Methylene Chloride	250.	370.	446.	68000.	68000.	68000.	68000.	68000.	68000.	68000.	68000.	68000.	68000.	68000.	68000.	68000.	
Acetone	58.	47.	37.	15000.	15000.	15000.	15000.	15000.	15000.	15000.	15000.	15000.	15000.	15000.	15000.	15000.	
Carbon Disulfide	28.	17.	19.	9660.	9660.	9660.	9660.	9660.	9660.	9660.	9660.	9660.	9660.	9660.	9660.	9660.	
Chloroform	370.	234.	160.	418.	480.	100.	418.	480.	100.	418.	480.	100.	418.	480.	100.	418.	
1,1,1-Trichloroethane	9.	17.	12.	4.	4.		4.	4.		4.	4.		4.	4.		4.	
Carbon Tetrachloride	4.	4.		10.	10.		10.	10.		10.	10.		10.	10.		10.	
Bromochloroethane	150.	75.	87	139.	270.	43.	139.	270.	43.	139.	270.	43.	139.	270.	43.	139.	
BromoChloroethane	478.	130.	180.	500.	710.	570.	500.	710.	570.	500.	710.	570.	500.	710.	570.	500.	
TetraChloroethane	24.	9.	16.	16.	21.	14.	16.	21.	14.	16.	21.	14.	16.	21.	14.	16.	
Toluene	520.	81.	116.	83.	190.	74.	83.	190.	74.	83.	190.	74.	83.	190.	74.	83.	
Styrene	47.	40.	78.	42.	50.	34.	42.	50.	34.	42.	50.	34.	42.	50.	34.	42.	
Total Hydrocarbons																	

**** Sample lost due to clogged transfer line in December. Data not reported.

Sample Number
VOST-1-C

01

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS-KNOXVILLE Case No: EGG 23549
 Lab Sample ID No: AASPE9 QC Report No: _____
 Sample Matrix: WATER Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-9-86

Volatiles Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-29-86
 Date Analyzed: 12-29-86
 Conc/Dil Factor: 1/200 pH _____
 Percent Moisture: (Not Decanted) _____

18.075 ml
of CONDENSATE

CAS Number	Compound	Concentration (Circle One)
74-87-3	Chloromethane	U 36
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	6.0 BT
67-64-1	Acetone	690.8
75-15-0	Carbon Dioxide	U 18
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-58-3	Chloroform	8.878
107-06-2	1, 2-Dichloroethane	U 18
78-93-3	2-Butanone	U 36
71-55-8	1, 1, 1-Trichloroethane	U 18
56-23-5	Carbon Tetrachloride	U 18
109-05-4	Vinyl Acetate	U 36
75-27-4	BromoChloromethane	U 18

CAS Number	Compound	Concentration (Circle One)
78-87-5	1, 2-Dichloropropane	U 18
10081-02-8	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	U 36
75-25-2	Bromoform	U 18
103-10-1	4-Methyl-2-Pentanone	U 36
591-78-8	2-Hexanone	U 36
127-18-4	Tetrachloroethene	U 18
79-34-5	1, 1, 2, 2-Tetrachloroethane	
103-83-3	Toluene	
109-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following nomenclature is used. Additional flags or technical nomenclature are standardized. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed but not detected. Report the maximum detection limit for the sample such as U to g, 1001 mg/L or the maximum concentration in the sample. (This is not necessarily the analytical detection limit.) The number in parentheses next to U indicates the number of samples analyzed. The number is the minimum acceptable detection limit for the sample.
- J** Indicates an observed value. This flag is used when which analyzing a compound in the monitoring specified compound or where a 1:1 response is required or when the most specific data indicated the presence of a compound that meets the monitoring criteria but the result is less than the required detection limit but greater than zero to g, 1001. If zero or detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as J.
- C** This flag applies to general parameters where the detection limit has been determined by GC/MS. Sample detection limit is 2.10 µg/l or the limit value should be determined by GC/MS.
- B** This flag is used when the analyte is found in the sample as well as a separate. It indicates separate compounds found simultaneously and warns the data user to look for possible issues.
- Other** Other specific flags and nomenclature are defined in Chapter 10 of the manual. If used, they must be fully defined and such description attached to the data submission report.

Sample Number

VOST-2-C

042

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE
 Lab Sample ID No: A45860
 Sample Matrix: WATER
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23549
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 12-29-86Days Analyzed: 12-29-86Conc/Dil Factor: 1/200 pH _____

Percent Moisture: (Not Decanted) _____

38.064 ml
of CONDENSATE

CAS Number	Compound	Concentration (Circle One)
74-87-3	Chloromethane	U 76
74-83-9	Bromomethane	U 76
75-01-4	Vinyl Chloride	U 76
75-00-3	Chloroethane	U 76
75-09-2	Methylene Chloride	13 8J
67-64-1	Acetone	1600 B
75-15-0	Carbon Disulfide	U 38
75-35-4	1, 1-Dichloroethane	U 76
75-34-3	1, 1-Dichloroethane	U 76
156-60-5	Trans-1, 2-Dichloroethene	U 76
67-66-3	Chloroform	22 8J
107-08-2	1, 2-Dichloroethane	U 38
78-93-3	2-Butanone	U 76
71-55-6	1, 1, 1-Trichloroethane	U 38
58-23-5	Carbon Tetrachloride	U 38
103-05-4	Vinyl Acetate	U 76
75-27-4	Bromodichloromethane	U 38

CAS Number	Compound	Concentration (Circle One)
78-87-5	1, 2-Dichloropropane	U 38
10081-02-8	Trans-1, 3-Dichloropropane	U 38
78-01-8	Trichloroethene	U 38
124-48-1	Dibromochloromethane	U 38
79-00-5	1, 1, 2-Trichloroethane	U 38
71-43-2	Benzene	U 38
10081-01-3	cis-1, 3-Dichloropropane	U 38
110-75-8	2-Chloroethoxyethane	U 76
75-25-2	Bromoform	U 38
108-10-1	4-Methyl-2-Pentanone	U 76
591-78-8	2-Hexanone	U 76
127-18-4	Tetrachloroethene	U 38
79-34-5	1, 1, 2, 2-Tetrachloroethane	U 38
108-88-3	Toluene	U 38
105-90-7	Chlorobenzene	U 38
100-41-4	Ethylbenzene	U 38
100-42-5	Styrene	U 38
	Total Xylenes	U 38

Data Reporting Guidelines

For reporting results to EPA, the following numeric conditions are used. Additional flags or brackets explaining results are encouraged. However, the definition of each flag must be consistent.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample (not the U to g, 100) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum detectable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 100). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.
- C** This flag applies to petrochemicals where the identification has been confirmed by GC-MS. Sample concentrations greater than 10 µg/l in the total extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible possible blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and brackets may be employed to denote the results. If used, they must be fully described and such descriptions attached to the data summary report.

Form I

1056

11/85

Sample Number
VOST-3-C

061

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE
 Lab Sample ID No: AA5861
 Sample Matrix: WATER
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23549
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-29-86
 Date Analyzed: 12-29-86
 Conc/Dil Factor: 1/200 pH _____
 Percent Moisture: (Not Decanted) _____

37.025 ml
of condensate

CAS Number	Compound	ug/l (Circle One)
74-87-3	Chloromethane	U 74
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	14 BJ
87-54-1	Acetone	1400 B
75-15-0	Carbon Disulfide	U 37
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	20 BJ
107-06-2	1, 2-Dichloroethane	U 37
79-93-3	2-Butanone	U 74
71-55-6	1, 1, 1-Trichloroethane	U 37
56-23-5	Carbon Tetrachloride	U 37
108-05-4	Vinyl Acetate	U 74
75-27-4	Bromodichloromethane	U 37

CAS Number	Compound	ug/l (Circle One)
78-87-5	1, 2-Dichloropropane	U 37
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethane	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	U 74
75-25-2	Bromoform	U 37
108-10-1	4-Methyl-2-Pentanone	U 74
591-78-6	2-Hexanone	U 74
127-18-4	Tetrachloroethene	U 37
79-34-5	1, 1, 2, 2-Tetrachloroethane	
103-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
-	Total Xylenes	U 37

Units Reporting Conventions

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the most spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticides per se where the identification flag has been confirmed by GC-MS. Single component pesticides 2:10 ug/l in the final extract (10:1) to be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates positive products blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description placed in the data summary report.

Sample Number
VOST-5-C

Organics Analysis Data Sheet
(Page 1)

0015

Laboratory Name: ITAS-KNOXVILLE
 Lab Sample ID No: AA6496
 Sample Matrix: WATER
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23612
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-17-86

Volatiles Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-29-86
 Date Analyzed: 12-29-86
 Conc/Dil Factor: 1/28 pH _____
 Percent Moisture: (Not Decanted) _____

42.18 ml
Total Volume

CAS Number	Compound	ug/L (Circle One)
74-87-3	Chloromethane	12 U
74-83-5	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	250. B
67-64-1	Acetone	17. B
75-15-0	Carbon Disulfide	6 U
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	3 BJ
107-06-2	1, 2-Dichloroethane	6 U
78-93-3	2-Butanone	12 U
71-55-6	1, 1, 1-Trichloroethane	6 U
56-23-5	Carbon Tetrachloride	6 U
109-05-4	Vinyl Acetate	12 U
75-27-4	Bromodichloromethane	6 U

CAS Number	Compound	ug/L (Circle One)
78-87-5	1, 2-Dichloropropane	6 U
10061-02-6	Trans-1, 3-Dichloropropene	
78-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	12 U
75-25-2	Bromoform	6 U
109-10-1	4-Methyl-2-Pentanone	12 U
591-78-8	2-Hexanone	12 U
127-18-4	Tetrachloroethene	6 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xlenes	

Data Reporting Qualifiers

For reporting results in EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as .3J.
- C** This flag applies to pesticide per se where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ug/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to use appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
VOST-6-C

Organics Analysis Data Sheet
(Page 1)

0037

Laboratory Name: ITAS - KNOXVILLE
 Lab Sample ID No: AA6497
 Sample Matrix: WATER
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23612
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-29-86
 Date Analyzed: 12-29-86
 Conc/Dil Factor: 1/50 pH _____
 Percent Moisture: (Not Decanted) -

3.52 ml
Total volume

CAS Number	Compound	ug/L (Circle One)
74-87-3	Chloromethane	5 U
74-83-9	Bromomethane	↓
75-01-4	Vinyl Chloride	↓
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	15.8
67-64-1	Acetone	38.8
75-15-0	Carbon Disulfide	3 U
75-35-4	1, 1-Dichloroethane	↓
75-34-3	1, 1-Dichloroethane	↓
156-60-5	Trans-1, 2-Dichloroethene	↓
67-66-3	Chloroform	1.5 BJ
107-06-2	1, 2-Dichloroethane	3 U
78-93-3	2-Butanone	5 U
71-55-8	1, 1, 1-Trichloroethane	3 U
58-23-5	Carbon Tetrachloride	3 U
108-05-4	Vinyl Acetate	5 U
75-27-4	Bromodichloroethane	3 U

CAS Number	Compound	ug/L (Circle One)
78-87-5	1, 2-Dichloropropane	3 U
10061-02-6	Trans-1, 3-Dichloropropane	↓
73-01-6	Trichloroethene	↓
124-48-1	Dibromochloromethane	↓
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	↓
10061-01-5	cis-1, 3-Dichloropropane	↓
110-75-8	2-Chloroethylvinylether	5 U
75-25-2	Bromoform	3 U
108-10-1	4-Methyl-2-Pentanone	5 U
591-78-6	2-Hexanone	5 U
127-18-4	Tetrachloroethene	3 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	↓
108-88-3	Toluene	↓
108-90-7	Chlorobenzene	↓
100-41-4	Ethylbenzene	↓
100-42-5	Styrene	↓
	Total Xylenes	↓

Data Reporting Conventions

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U) if limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ug/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible pesticide blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to accurately define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
VB-1-F

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23549
 Lab Sample ID No: AA 5844 QC Report No: _____
 Sample Matrix: SOLVENT - BENZENE Contract No: _____
 Data Release Authorized By: W.T. Wilson Data Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-84-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-8	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
109-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-37-5	1, 2-Dichloropropane	NA
10081-02-8	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-35-2	Bromoform	
103-10-1	4-Methyl-2-Pentanone	
591-78-8	2-Hexanone	
127-18-4	Tetrachloroethane	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
103-33-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following results conventions are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be identical.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the maximum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the maximum detectable concentration limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** The flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides 210 ng/l or in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible prelab blank contamination and warns the data user to take appropriate action.
- Other** Other special flags and footnotes may be required to properly explain the results. If used, they must be fully described and such descriptions attached to the data summary report.

Laboratory Name 17A S - KNOXVILLE
 Case No. EGG 23549

Sample Number
VB-1-6

Organics Analysis Data Sheet
 (Page 2)

AA5844
 2
 AA5844D *

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 1-9-87
 Date Analyzed: 1-12-87
 Conc/Dil Factor: 10:1
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes No

CAS Number	Compound	ug/kg (Circle One)
108-95-2	Phenol	50
111-44-4	bis(2-Chloroethyl)Ether	10. u
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnphenol	
39633-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylnphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachlorobenzene	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	↓
65-85-0	Benzoic Acid	72 *
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	↓
91-20-3	Naphthalene	31.
106-47-8	4-Chloroaniline	10. u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylnphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	↓
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	7. J
208-95-8	Acenaphthylene	10. u
93-09-2	3-Nitroaniline	50. u

CAS Number	Compound	ug/kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrostuene	
605-20-2	2,6-Dinitrostuene	↓
84-66-2	Diethylphthalate	13.
7005-72-3	4-Chlorophenylphenylether	10. u
86-73-7	Fluorene	10. u
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylnphenol	50. u
85-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenylphenylether	
118-74-1	Hexachlorobenzene	↓
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	6. J
208-44-0	Fluoranthene	10. u
129-00-0	Pyrene	10. u
35-68-7	Butylbenzylphthalate	1. J
91-94-1	3,3-Dichlorobenzidine	20. u
56-55-3	Benzofluoranthene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	9. J
219-01-9	Chrysene	10. u
117-84-0	Di-n-Octyl Phthalate	430. *
205-99-2	Benzobifluoranthene	10. u
207-03-9	Benzofluoranthene	
50-32-8	Benzofluoranthene	
133-39-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenzofluoranthene	
191-24-2	Benzofluoranthene	↓

(1) Cannot be generated from diphenylamine
 Benzoic Acid
 * DI-N-OCTYL PHTHALATE DATA TAKEN
 FROM BULKY AA5844D

Laboratory Name ITAS Knoxville
 Case No EGG 23549

Sample Number 08
 VB-1-F
 VB-1-E-XAD
 VB-1-F-PW
 VB-1-F-C

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One) * GPC Cleanup Yes No
 Date Extracted/Prepared 12/22-29/86 Separatory Funnel Extraction Yes
 Date Analyzed 1-10-11-87 Continuous Liquid-Liquid Extractor Yes
 Conc (Dil Factor) 1/5, 1/20, 1/200
 Percent Moisture (decanted) _____

CAS Number		ng ug/L or ug/g (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
60-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1100.0
12674-11-2	Arctol-1018	500.0
11104-23-2	Arctol-1221	9400.0
11147-19-3	Arctol-1232	500.0
53429-21-9	Arctol-1242	500.0
12672-27-6	Arctol-1243	500.0
11097-39-1	Arctol-1254	1000.0
11098-32-5	Arctol-1260	1000.0

- V_i = Volume of extract injected (ul)
- V_s = Volume of water extracted (ml)
- W_s = Weight of sample extracted (g)
- V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000.0 V_t 5.0
 * modified prep-seq narrative

Sample Number

VB-2-F

Organics Analysis Data Sheet
(Page 1)

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Laboratory Name: ITAS - KNOXVILLECase No: EGG 23549Lab Sample ID No: A45845

QC Report No: _____

Sample Matrix: SOLVENT

Contract No: _____

Data Release Authorized By: W.T. WilsonDate Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-8	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethane	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
109-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following results conventions are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides 2:10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags or footnotes may be required to properly define the results. If used, the flag must be fully described and such description attached to the data summary report.

Form 1

1063

11/85

Laboratory Name ITAS - KNOXVILLE
 Case No: EGG 23549

Sample Number
V8-2-F

Organics Analysis Data Sheet
 (Page 2)

AA5845
 &
 AA5845D *

Semivolatiles Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 1-9-87
 Date Analyzed: 1-12-87
 Conc/Dil Factor: 10:1
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes No

CAS Number		Concentration (Circle One)
108-95-2	Phenol	37.0
111-34-4	bis(2-Chloroethyl)Ether	10.0
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
99-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	130.0 *
111-91-1	bis(2-Chloroethoxy)Methane	10.0
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	✓
91-20-3	Naphthalene	4.0
106-47-8	4-Chloroaniline	10.0
87-63-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-5	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-05-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50.0
91-59-7	2-Chloronaphthalene	10.0
88-74-4	2-Nitroaniline	50.0
131-11-3	O-Methyl Phthalate	3.0
203-95-8	Acenaphthylene	10.0
99-09-2	3-Nitroaniline	50.0

CAS Number		Concentration (Circle One)
83-32-9	Acenaphthene	10.0
51-28-5	2,4-Dinitrophenol	50.0
100-02-7	4-Nitrophenol	50.0
132-64-9	Dibenzofuran	10.0
121-14-2	2,4-Dinitrotoluene	
506-20-2	2,6-Dinitrotoluene	✓
84-66-2	Diethylphthalate	13.0
7005-72-3	4-Chlorophenyl-phenylamine	10.0
86-73-7	Fluorene	10.0
100-01-6	4-Nitroaniline	50.0
534-52-1	4,6-Dinitro-2-Methylphenol	50.0
96-30-6	N-Nitrosodiphenylamine (1)	10.0
101-55-3	4-Bromophenyl-phenylamine	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	50.0
35-01-8	Phenanthrene	10.0
120-12-7	Anthracene	10.0
94-74-2	Di-n-Butylphthalate	6.0
206-44-0	Fluoranthene	10.0
129-00-0	Pyrene	10.0
35-68-7	Butylbenzylphthalate	2.0
91-94-1	3,3'-Dichlorobenzidine	20.0
56-55-3	Benzofluoranthene	10.0
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	✓
117-84-0	Di-n-Octyl Phthalate	310.0 *
205-99-2	Benzofluoranthene	10.0
207-03-9	Benzofluoranthene	
50-32-8	Benzofluoranthene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzofluoranthene	✓

(1) Cannot be separated from diphenylamine

* TAKEN FROM DILUTION AA5845D

Laboratory Name ITAS Knoxville
 Case No E4G 23549

Sample Number
VB-2-F
VB-2-F-XAD
VB-2-F-PW
VB-2-F-C

Organics Analysis Data Sheet
 (Page 3)

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Pesticide/PCBs

Concentration Low Medium (Circle One) *
 Date Extracted/Prepared 1-22-29/86
 Date Analyzed 1-10-11-87
 Conc Dil Factor: 1/5, 1/20, 1/200
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes

CAS Number		ng μg/Kg (Circle One)
319-84-6	Alpha BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	
8001-35-2	Tosaphene	1100.0
12874-11-2	Aroclor-1015	500.0
11104-23-2	Aroclor-1221	9400.0
11141-16-3	Aroclor-1232	500.0
53489-21-9	Aroclor-1242	500.0
12872-29-8	Aroclor-1248	500.0
11097-89-1	Aroclor-1254	1000.0
11096-82-5	Aroclor-1260	1000.0

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000.0 V_t 5.0
 * modified prep - see narrative

Sample Number
VB-3F

Organics Analysis Data Sheet
(Page 1)

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Laboratory Name: ITAS - KNOXVILLE
 Lab Sample ID No: AA584L
 Sample Matrix: solvent
 Data Release Authorized By: W.P. Under

Case No: EGG
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethyvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-83-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Use Reporting Qualifiers

For reporting results to EPA, the following result qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the sample as well as a sample. It indicates possible, probable blame contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name ITAS - KNOXVILLE
 Case No. EGG 23549

Sample Number
V. - 3-F

Organics Analysis Data Sheet
 (Page 2)

AA 5846
R
AA 5846D *

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 1-9-87
 Date Analyzed 1-12-87
 Conc/Dil Factor: 10:1
 Percent Moisture (Decanted) NA

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid-Liquid Extraction Yes No

CAS Number		ug/ml or ug/g (Circle One)
108-95-2	Phenol	32.
111-44-4	bis(2-Chloroethyl)Ether	10. u
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl)Ether	
106-44-3	4-Methylpheno	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	↓
65-85-0	Benzoic Acid	110. *
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	↓
91-20-3	Naphthalene	36.
106-47-8	4-Chloroaniline	10. u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	↓
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	7. J
208-95-9	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/ml or ug/g (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	↓
84-66-2	Diethylphthalate	3. J
7005-72-3	4-Chlorophenyl-phenylether	10. u
86-73-7	Fluorene	10. u
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	↓
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	4. J
206-44-0	Fluoranthene	10. u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	↓
91-94-1	3,3-Dichlorobenzidine	20. u
55-55-3	Benz[a]Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	3. J
218-01-9	Chrysene	10. u
117-84-0	Di-n-Octyl Phthalate	120.
205-99-2	Benzobifluoranthene	10. u
207-08-9	Benzokifluoranthene	10. u
50-32-8	Benz[a]Pyrene	10. u
193-39-5	Indeno[1,2,3-cd]Pyrene	10. u
53-70-3	Dibenz[a,h]Anthracene	10. u
191-24-2	Benzog h ilPerylene	10. u

(1) Cannot be separated from diphenylamine

* BASED ON DILUTION AA 5846D

Laboratory Name ITAS Knoxville
 Case No EGG 23549

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Sample Number
VB-3-F
VB-3-F-XAD
VB-3-F-PW
VB-3-F-C

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One) GPC Cleanup Yes No
 Date Extracted/Prepared 12/22-29/86 Separatory Funnel Extraction Yes
 Date Analyzed 1-10, 11-87 Continuous Liquid - Liquid Extraction Yes
 Conc (Dil Factor) 1.0, 420, 4200
 Percent Moisture (decanted) _____

CAS Number	ng ug/l or ug/kg (Circle One)	
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-4-3	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-ODE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1100.0
12674-11-2	Aroclor-1015	500.0
11104-23-2	Aroclor-1221	9400.0
11141-18-5	Aroclor-1232	500.0
53489-21-9	Aroclor-1242	500.0
12672-29-6	Aroclor-1248	500.0
11097-33-1	Aroclor-1254	1000.0
11093-32-5	Aroclor-1260	1000.0

V_i = Volume of extract injected (ul)
 V_e = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_e _____ or W_s _____ V_i 5000.0 V_t 5.0
 * modified prep - see narrative

Organics Analysis Data Sheet
(Page 1)

Sample Number
VB-5-F
AA6512

005

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23612
 Lab Sample ID No: AA6512 QC Report No: _____
 Sample Matrix: SOLVENT - RESIN Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

NO VOLATILE ANALYSIS REQUESTED THIS SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	↓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10051-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-89-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	↓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footer should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- S** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible cross-contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

0055

Laboratory Name ITAS-KNOXVILLECase No. EGG 23612

Sample Number

VB-5-A

AA6512

AA6512D →

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 1-9-87Date Analyzed: 1-12-87Conc/Dil Factor: 10:1Percent Moisture (Decanted) NAGPC Cleanup Yes NoSeparatory Funnel Extraction YesContinuous Liquid - Liquid Extraction Yes NA

CAS Number	Compound	ug/l or ug/kg (Circle One)
108-95-2	Phenol	28.
111-44-4	bis(2-Chloroethyl)Ether	10. u
95-57-8	2-Chlorophenol	
341-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	110. ✓
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	✓
91-20-3	Naphthalene	70.
106-47-8	4-Chloroaniline	10. u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,5-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	59. u
91-58-7	2-Chloronaphthalene	10. u
89-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	40 J
203-35-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number	Compound	ug/l or ug/kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
806-20-2	2,5-Dinitrotoluene	✓
84-86-2	Diethylphthalate	40 J
7005-72-3	4-Chlorophenyl-phenylether	10. u
86-73-7	Fluorene	10. u
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
95-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	8. J
205-44-0	Fluoranthene	10. u
129-00-0	Pyrene	
35-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	30. u
56-55-3	Benzo(a)Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	36.
218-01-9	Chrysene	10. u
117-34-0	Di-n-Octyl Phthalate	1400. *
205-99-2	Benzo(b)Fluoranthene	10. u
207-08-3	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

* TAKEN FROM DILUTION 100

Laboratory Name ITAS Knoxville
 Case No EGG 23612

Sample Number
V8-5-F
V8-5-F-XAD
V8-5-F-PW
V8-5-F-C

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

0057

Concentration Low Medium (Circle One) * GPC Cleanup Yes No
 Date Extracted/Prepared 12/22-29/86 Separatory Funnel Extraction Yes
 Date Analyzed 1-10-87 Continuous Liquid - Liquid Extraction Yes
 Conc Dil Factor 1/20, 1/200
 Percent Moisture (decanted) _____

CAS Number		ng ug/ton or ug/kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-85-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-38-8	Endosulfan I	
50-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	4400.U
12874-11-2	Aroclor-1016	1500.U
11104-28-2	Aroclor-1221	9400.U
11141-18-5	Aroclor-1232	1000.U
53469-21-9	Aroclor-1242	550.U
12872-29-6	Aroclor-1248	1300.U
11097-89-1	Aroclor-1254	1000.U
11096-82-5	Aroclor-1260	3000.U

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000 ul V_t 5 ul
 = Modified prep - see narrative

Sample Number
VB-6-F

Organics Analysis Data Sheet
(Page 1)

U146

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23612
 Lab Sample ID No: AA6513 QC Report No: _____
 Sample Matrix: SOLVENT-RESIN Contract No: _____
 Data Release Authorized By: W-T. Wilson Date Sample Received: 12-17-86

Volatila Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

} NO VOLATILE ANALYSIS REQUESTED THIS SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or brackets explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The threshold should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when a compound is found in the blank as well as a sample. It indicates possible contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to further define the results. If used, they must be fully described and such description attached to the data summary report.

0147

Laboratory Name ITAS-KNOXVILLECase No: EGG 23612

Sample Number

VB-6-F

AA 6513

AA 5613D *

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 1-9-87Date Analyzed: 1-12-87Conc/Dil Factor: 10:1Percent Moisture (Decanted): NAGPC Cleanup Yes NoSeparatory Funnel Extraction YesContinuous Liquid-Liquid Extraction Yes No

CAS Number	Compound	ug/l or ug/l (Circle One)
108-95-2	Phenol	34
111-44-4	bis(2-Chloroethyl)Ether	10. u
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-96-3	Nitrobenzene	
78-59-1	Isophorane	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	240. *
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	61
106-47-8	4-Chloroaniline	10. u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
98-05-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
89-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	18.
208-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number	Compound	ug/l or ug/l (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	4. J
7005-72-3	4-Chlorophenyl-phenylamine	10. u
85-73-7	Fluorene	10. u
100-01-5	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-85-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	5. J
206-44-0	Fluoranthene	10. u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	
91-94-1	3,3'-Dichlorobenzidine (1)	20. u
56-55-3	benzo[a]Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	330. *
205-99-2	benzo[b]fluoranthene	10. u
207-08-9	benzo[k]fluoranthene	
50-32-8	benzo[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
63-70-3	Dibenz[a,h]Anthracene	
191-24-2	benzo[g,h,i]Perylene	

(1) Cannot be separated from diphenylamine

* TAKEN FROM DISCUSS AUN

Form 1

1073

7.85

Laboratory Name ITAS Knoxville
 Case No EGG 23612

Sample Number
 VB-6-F
 VB-6-F-XA0
 VB-6-F-PW
 VB-6-F-C

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

0149

Concentration Low Medium (Circle One) *
 Date Extracted/Prepared 12/22-29/86
 Date Analyzed 1-10-11-87
 Conc (Oil Factor) Y10, Y20, Y200
 Percent Moisture (decanted) _____

GPC Cleanup Yes No
 Separatory Funnel Extraction Yes
 Continuous Liquid - Liquid Extraction Yes

CAS Number		ng ug/Locug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-23-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
9001-35-2	Toxaphene	2200.0
12874-11-2	Aroclor-1016	750.0
11104-28-2	Aroclor-1221	9400.0
11141-13-5	Aroclor-1222	510.0
53489-21-9	Aroclor-1242	500.0
12872-29-8	Aroclor-1243	650.0
11097-33-1	Aroclor-1254	1000.0
11036-82-5	Aroclor-1260	1900.0

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000 ul V_t 5 ul

* modified prep. see narrative.

Organics Analysis Data Sheet
(Page 1)

Sample Number
Tenax SA, 14912
Charcoal SA, 14915

AA6498/AA6499

Laboratory Name: ITAS Knoxville Case No: EGG 23612 0240
 Lab Sample ID No: AA6498 QC Report No: _____
 Sample Matrix: VOST Contract No: _____
 Data Release Authorized By: W. T. Wilson Date Sample Received: 12/17/86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12/30/86

Date Analyzed: 12/30/86

Conc/Dil Factor: NA pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/l or ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	110.
67-64-1	Acetone	15,000. B
75-15-0	Carbon Disulfide	74.
75-35-4	1, 1-Dichloroethene	25. U
75-34-3	1, 1-Dichloroethane	
155-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	62. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	920. B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	12. J

CAS Number		ng/tube ug/l or ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	79.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	1000.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	460. J
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	22. J
100-42-5	Styrene	290.
	Total Xylenes	110

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible positive blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be returned to properly define the results. If used, they must be fully described and such description attached to the data summary report.

188

Sample Number
 Tenax SB, 14813
 Charcoal SB, 14816

Organics Analysis Data Sheet
 (Page 1)

AA6500/AA6501

0302

Laboratory Name: ITAS Knoxville
 Lab Sample ID No: AA6500
 Sample Matrix: VOST
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23612
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12/17/86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-30-86
 Date Analyzed: 12-30-86
 Conc/Dil Factor: NA pH NA
 Percent Moisture: (Not Decanted) NA

CAS Number	Compound	ng/tube ug/100ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	250.
67-64-1	Acetone	7200. B
75-15-0	Carbon Disulfide	65.
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	47. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	1200. B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number	Compound	ng/tube ug/100ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	39.
10061-01-5	cis-1, 3-Dichloropropane	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
109-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	250.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	490.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	21. J
100-42-5	Styrene	
	Total Xylenes	77.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum obtainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable false contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

W.T.
1-27-87

Sample Number
Tenax GC, 14914
Charcoal GC, 14917

Organics Analysis Data Sheet
(Page 1)

AA6502/AA6503

0354

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA6502
Sample Matrix: VOST
Data Release Authorized By: W.T. Wilson

Case No: EGG 23612
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-30-86
Date Analyzed: 12-30-86
Conc/Dil Factor: NA pH NA
Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/l for ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	72.
67-64-1	Acetone	1800. B
75-15-0	Carbon Disulfide	46.
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	↓
67-66-3	Chloroform	27. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	470. B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/l for ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	↓
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	33.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	96.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	180.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	25. U
100-42-5	Styrene	4150.
	Total Xylenes	16. J

NTW
178-5

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible positive blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used they must be fully described and such description attached to the data summary report.

Sample Number
 Tenap 6A, 17945
 Charcoal 6A, 17948

Organics Analysis Data Sheet
 (Page 1)

AA6504/AA6505

0355

Laboratory Name: ITAS Knoxville
 Lab Sample ID No: AA6504
 Sample Matrix: VOST
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23612
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-30-86
 Date Analyzed: 12-30-86
 Conc/Dil Factor: NA pH NA
 Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/100ug/kg (Circle One)
74-87-3	Chloromethane	67.
74-83-9	Bromomethane	50. U
75-01-4	Vinyl Chloride	↓
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	47.
67-64-1	Acetone	6300. B
75-15-0	Carbon Disulfide	66.
75-35-4	1, 1-Dichloroethene	25. U
75-34-3	1, 1-Dichloroethane	↓
156-60-5	Trans-1, 2-Dichloroethene	↓
67-66-3	Chloroform	23. J B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	210. B
71-55-6	1, 1, 1-Trichloroethane	22. J
56-23-5	Carbon Tetrachloride	9. J
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/100ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	↓
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	93.
10061-01-5	cis-1, 3-Dichloropropane	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	99.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	140.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	33.
100-42-5	Styrene	27 31 J
	Total Xylenes	200.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible product blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
 Tenax 6B, 17946
 Charcoal 6B, 17949

Organics Analysis Data Sheet
 (Page 1)

AA6506, AA6507
 0445

Laboratory Name: ITAS Knoxville
 Lab Sample ID No: AA6506
 Sample Matrix: VOST
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23612
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-30-86
 Date Analyzed: 12-30-86
 Conc/Dil Factor: NA pH NA
 Percent Moisture: (Not Decanted) NA

CAS Number	Compound	ng/tube ug/l or ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	1
75-01-4	Vinyl Chloride	1
75-00-3	Chloroethane	✓
75-09-2	Methylene Chloride	19.
67-64-1	Acetone	750. B
75-15-0	Carbon Disulfide	23. J
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	25. U
156-60-5	Trans-1, 2-Dichloroethane	25. U
67-66-3	Chloroform	24. J B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	250.
71-55-6	1, 1, 1-Trichloroethane	25. U 7 J wtw
56-23-5	Carbon Tetrachloride	25. U 6 J wtw
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number	Compound	ng/tube ug/l or ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	✓
71-43-2	Benzene	97.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromotorm	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	54.
73-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	120.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	13. J
100-42-5	Styrene	25. U 37 wtw
	Total Xylenes	25. U 94

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used
 Additional flags or footnotes explaining results are encouraged. However, the
 definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
 Tenax G, 17947
 Chromal G, 17950
 AA6508/AA6509

Organics Analysis Data Sheet
 (Page 1)

Laboratory Name: ITAS Knoxville Case No: EGG 23612 0432
 Lab Sample ID No: AA6508 QC Report No: _____
 Sample Matrix: VOST Contract No: _____
 Data Release Authorized By: W. T. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-30-86
 Date Analyzed: 12-30-86
 Conc/Dil Factor: NA pH NA
 Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/100ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	↓
75-01-4	Vinyl Chloride	↓
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	64.
67-64-1	Acetone	1000. g
75-15-0	Carbon Disulfide	25. J
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	↓
156-60-5	Trans-1, 2-Dichloroethane	↓
67-66-3	Chloroform	30. A
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	390. B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/100ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	↓
79-01-6	Trichloroethene	↓
124-48-1	Dibromochloromethane	↓
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	70.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	69.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	260.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	21.
100-42-5	Styrene	190.
	Total Xylenes	140.

Date Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value If this result is a value greater than or equal to the detection limit, report the value.
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ul in the final extract should be confirmed by GC/MS.
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
17939, 17940

372

Organics Analysis Data Sheet
(Page 1)

AA5862/AA5863

Laboratory Name: ITAS Knoxville Case No: E6623549
 Lab Sample ID No: AA5862 QC Report No: _____
 Sample Matrix: VOST Contract No: _____
 Data Release Authorized By: W.T. Linsland Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-23-86
 Date Analyzed: 12-23-86
 Conc/Dil Factor: NA pH NA
 Percent Moisture: (Net Decanted) NA

CAS Number		ng/tube ug/liter or ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	110.
67-64-1	Acetone	250. B
75-15-0	Carbon Disulfide	54.
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	↓
155-60-5	Trans-1, 2-Dichloroethane	↓
67-68-3	Chloroform	29. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	320. B
71-55-6	1, 1, 1-Trichloroethane	9. J
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/liter or ug/kg (Circle One)
78-37-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-5	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	150.
10061-01-5	cis-1, 3-Dichloropropane	25. U
110-75-8	2-Chloroethvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-98-3	Toluene	470.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	16. J
100-42-5	Styrene	120.
	Total Xylenes	117.

Data Reporting Qualifiers

For reporting results to EPA, the following qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 2J.
- G** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take corrective action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

47. KLA
1-17-87

Sample Number **422**
 17941, 17942
 AA 5864/AA 5865

Organics Analysis Data Sheet
 (Page 1)

Laboratory Name: ITAS Knoxville Case No: EGG23549
 Lab Sample ID No: AA 5864 QC Report No: _____
 Sample Matrix: VOST Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-23-86
 Date Analyzed: 12-23-86
 Conc/Dil Factor: NA pH NA
 Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/L for ug/Kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	150.
67-64-1	Acetone	320. B
75-15-0	Carbon Disulfide	47.
75-35-4	1, 1-Dichloroethene	25. U
75-34-3	1, 1-Dichloroethane	25. U
156-60-5	Trans-1, 2-Dichloroethene	25. U
67-66-3	Chloroform	17. JB
107-36-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	230. B
71-55-6	1, 1, 1-Trichloroethane	12. J
55-23-5	Carbon Tetrachloride	6. J
109-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/L for ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	75.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethoxyvinyl ether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
103-88-3	Toluene	130.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	9. J
100-42-5	Styrene	91.
	Total Xylenes	Final Reading 40

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be exact.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/detection action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.
- C** This flag applies to contact parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible or probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to correctly define the results. If used, they must be fully described and such description attached to the data summary report.

WTR 1-9-87

Sample Number
 17943, 17944
 AA5866/AA5867

469

Organics Analysis Data Sheet
 (Page 1)

Laboratory Name: ITAS Knoxville Case No: EGG23549
 Lab Sample ID No: AA5866 QC Report No: _____
 Sample Matrix: VOST Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-23-86
 Date Analyzed: 12-23-86
 Conc/Dil Factor: NA pH NA
 Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/L or ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	390.
67-64-1	Acetone	640. B
75-15-0	Carbon Disulfide	57. J
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	
136-80-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	19. JB
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	180. B
71-55-6	1, 1, 1-Trichloroethane	12. J
56-23-5	Carbon Tetrachloride	6. J
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/L or ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichlorocyclohexane	
79-01-6	Trichloroethane	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	87.
10061-01-5	cis-1, 3-Dichlorocyclohexane	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	180.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	14. J
100-42-5	Styrene	110.
	Total Xylenes	78.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be exact.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide determinations where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required. Thoroughly define the results. If used, they must be fully described in such detail as attached to the data summary report.

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Sample Number
14793,14796Organics Analysis Data Sheet
(Page 1)

AA5868/AA5869

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA5868
Sample Matrix: VDST
Data Release Authorized By: W.T. WilsonCase No: EGG23549
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-23-86Date Analyzed: 12-23-86Conc/Dil Factor: NA pH NAPercent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/100ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	1
75-01-4	Vinyl Chloride	1
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	48.
67-64-1	Acetone	1000. B
75-15-0	Carbon Disulfide	50.
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	1
156-60-5	Trans-1, 2-Dichloroethane	1
67-66-3	Chloroform	43. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	410. B
71-55-8	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	10. J

CAS Number		ng/tube ug/100ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropane	1
79-01-6	Trichloroethane	1
124-48-1	Dibromochloromethane	↓
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	130.
10061-01-5	cis-1, 3-Dichloropropane	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethane	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	500.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	16. J
100-42-5	Styrene	43
	Total Xylenes	42.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- | | | | |
|-------|---|-------|--|
| Value | If the result is a value greater than or equal to the detection limit, report the value. | C | This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/ml in the final extract should be confirmed by GC-MS. |
| U | Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample. | B | This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 $\mu\text{g/l}$ and a concentration of 3 $\mu\text{g/l}$ is calculated, report as 3J. | Other | Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report. |

Form I

1084

11/85

567

Sample Number
14794, 14797

Organics Analysis Data Sheet
(Page 1)

(AA5870/AA5871)

Laboratory Name: ITAS Knoxville
Lab Sample ID No: (A) A5870
Sample Matrix: VDST
Data Release Authorized By: U.T. Wilson

Case No: EGG 23549
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-23-86
Date Analyzed: 12-23-86
Conc/Dil Factor: NA pH NA
Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/100ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	96.
67-64-1	Acetone	15000. B
75-15-0	Carbon Disulfide	75. U
75-35-4	1, 1-Dichloroethane	25 U
75-34-3	1, 1-Dichloroethane	
138-60-5	Trans-1, 2-Dichloroethane	
67-65-3	Chloroform	49. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	482. B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	10. J

CAS Number		ng/tube ug/100ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	220.
10061-01-5	cis-1, 3-Dichloropropane	25. U
110-75-9	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	730.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	21. J
100-42-5	Styrene	190.
	Total Xylenes	50.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible detection blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number
14795, 14798Organics Analysis Data Sheet
(Page 1)

AA5872/AA5873

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA5872
Sample Matrix: VOST
Data Release Authorized By: W.T. WilsonCase No: EGG 23549
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-23-86
Date Analyzed: 12-23-86
Conc/Dil Factor: NA pH NA
Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/l or ug/g (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	64.
67-64-1	Acetone	3600. B
75-15-0	Carbon Disulfide	32
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	42. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	100. B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	10. J

CAS Number		ng/tube ug/l or ug/g (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	25. U
79-01-6	Trichloroethene	25. U
124-48-1	Dibromochloromethane	5. J
79-00-5	1, 1, 2-Trichloroethane	25. U
71-43-2	Benzene	65
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	520.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	16. J
100-42-5	Styrene	74.
	Total Xylenes	36.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be exact.

Value	If the result is a value greater than or equal to the detection limit, report the value.	C	This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.	B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible or possible blank contamination and warns the data user to take appropriate action.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 $\mu\text{g/l}$ and a concentration of 3 $\mu\text{g/l}$ is calculated, report as 3J.	Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number
14801, 14804Organics Analysis Data Sheet:
(Page 1)

AA5878/AA5879

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA5878
Sample Matrix: VOST
Data Release Authorized By: W. T. WilsonCase No: EGG 23549
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-30-86Date Analyzed: 12-30-86Conc/Dil Factor: NA pH NAPercent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/l or ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	✓
75-09-2	Methylene Chloride	120.
67-84-1	Acetone	250. U
75-15-0	Carbon Disulfide	25 36. ¹⁻⁸⁻⁸⁷
75-35-4	1, 1-Dichloroethane	25 U
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	✓
67-66-3	Chloroform	29. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	1700 B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
109-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/l or ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	✓
71-43-2	Benzene	380.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	230.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
109-88-3	Toluene	500.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	16. J
100-42-5	Styrene	170.
	Total Xylenes	40.

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- | | |
|--|---|
| <p>Value If the result is a value greater than or equal to the detection limit, report the value</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.</p> | <p>C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng./ul in the final extract should be confirmed by GC/MS.</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.</p> <p>Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such descriptions attached to the data summary report.</p> |
|--|---|

VOST

Sample Number
Method Blank

Organics Analysis Data Sheet
(Page 1)

VTBLK 12232

1019

Laboratory Name: ITAS Knoxville
Lab Sample ID No: VTBLK 12232
Sample Matrix: VOST
Data Release Authorized By: W.T. Wilson

Case No: EGG 23549
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-23-86
Date Analyzed: 12-23-86
Conc/Dil Factor: NA pH NA
Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	50 U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	25 U
67-64-1	Acetone	50 J
75-15-0	Carbon Disulfide	25 U
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-86-3	Chloroform	12 J
107-06-2	1, 2-Dichloroethane	25 U
78-93-3	2-Butanone	18 J
71-55-6	1, 1, 1-Trichloroethane	25 U
56-23-5	Carbon Tetrachloride	25 U
108-05-4	Vinyl Acetate	50 U
75-27-4	Bromodichloromethane	25 U

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25 U
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	50 U
75-25-2	Bromoform	25 U
108-10-1	4-Methyl-2-Pentanone	50 U
591-78-6	2-Hexanone	50 U
127-18-4	Tetrachloroethene	25 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25 U
108-88-3	Toluene	125 U
108-90-7	Chlorobenzene	25 U
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- V** Value If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to accurately define the results. If used, they must be fully described and such description attached to the data summary report.

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VOST

Sample Number Method Blank VTBLK 12302
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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS Knoxville
 Lab Sample ID No: VTBLK 12302
 Sample Matrix: VOST
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23549
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-30-86

Date Analyzed: 12-30-86

Conc/Dil Factor: NA pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/l or ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	↓
75-01-4	Vinyl Chloride	↓
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	25. U
67-64-1	Acetone	100. J
75-15-0	Carbon Disulfide	25. U
75-35-4	1, 1-Dichloroethane	↓
75-34-3	1, 1-Dichloroethane	↓
156-80-5	Trans-1, 2-Dichloroethane	↓
67-66-3	Chloroform	14. J
107-08-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	25. J
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/l or ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropane	↓
79-01-6	Trichloroethene	↓
124-48-1	Dibromochloromethane	↓
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	↓
10061-01-5	cis-1, 3-Dichloropropane	↓
110-75-8	2-Chloroethoxyvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	125. U
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	↓
100-42-5	Styrene	↓
	Total Xylenes	↓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- | | |
|--|---|
| <p>V Value If the result is a value greater than or equal to the detection limit, report the value</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.</p> | <p>C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.</p> <p>Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.</p> |
|--|---|

1053

Sample Number METHOD BLANK 3 VOST CONDENSATE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS-Knoxville Case No: EGG 23549
 Lab Sample ID No: VORL12293 QC Report No: _____
 Sample Matrix: WATER Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-29-86
 Date Analyzed: 12-29-86
 Conc/Dil Factor: _____ pH _____
 Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	U 10
74-83-9	Bromomethane	U
75-01-4	Vinyl Chloride	U
75-00-3	Chloroethane	U
75-09-2	Methylene Chloride	35
67-64-1	Acetone	34
75-15-0	Carbon Disulfide	U 50
75-35-4	1, 1-Dichloroethene	U
75-34-3	1, 1-Dichloroethane	U
156-60-5	Trans-1, 2-Dichloroethene	U
67-86-3	Chloroform	5
107-06-2	1, 2-Dichloroethane	U 5.0
78-93-3	2-Butanone	U 10
71-55-6	1, 1, 1-Trichloroethane	U 5.0
56-23-5	Carbon Tetrachloride	U 5.0
108-05-4	Vinyl Acetate	U 10
75-27-4	Bromodichloromethane	U 5.0

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	U 5.0
10061-02-6	Trans-1, 3-Dichloropropene	U
79-01-6	Trichloroethene	U
124-48-1	Dibromochloromethane	U
79-00-5	1, 1, 2-Trichloroethane	U
71-43-2	Benzene	U
10061-01-5	cis-1, 3-Dichlorocyclopene	U
110-75-8	2-Chloroethylvinylether	U 10
75-25-2	Bromoform	U 5.0
106-10-1	4-Methyl-2-Pentanone	U 10
591-78-6	2-Hexanone	U 10
127-18-4	Tetrachloroethene	U 5.0
79-34-5	1, 1, 2, 2-Tetrachloroethane	U
108-88-3	Toluene	U
108-90-7	Chlorobenzene	U
100-41-4	Ethylbenzene	U
100-42-5	Styrene	U
	Total Xylenes	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

<p>Value If the result is a value greater than or equal to the detection limit, report the value</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J</p>	<p>C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action</p> <p>Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report</p>
---	--

Case No. EGG-23549 Contract Laboratory TIAS-Knoxville Contract No. _____

SAP Traffic No.	VOLATILE					SEMI-VOLATILE					PESTICIDE
	TOLUENE-08 (88-110)	M8 (88-118)	1,2 DICHLORO- ETHYLENE-84 (78-114)	NITRO- BENZENE-83 (88-112)	2-FLUORO- BIPHENYL (43-118)	TERPENEYL- DIB (23-141)	PHENOL-85 (11-84)	2-FLUORO- PHENOL (11-100)	2,4,6 TRIBROMO PHENOL (16-128)	DIBUTYL- CHLOROPHOSPHATE (18-184)	
VOST-1-C	75	91	99								
VOST-2-C	103	104	98								
VOST-3-C	105	96+116	99								
VOST-1-C	100	112	93								
VOST-2-C	106	108	94								
VOST-1-C	115	91	99								
PROBBL	103	105	102								

Volatiles: out of 15 ; outside of QC limits
 Semi-Volatiles: out of _____ ; outside of QC limits
 Pesticides: out of _____ ; outside of QC limits

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS
 ** ADVISORY LIMITS ONLY

Comments: VOST CONDENSATE RUNS (VGA)

100

NOT
SUBMITTED

1091

WATER SURROGATE PERCENT RECOVERY SUMMARY

002

Case No. EA623549

Contract Laboratory ITAS Knoxville

Contract No. _____

CLIENT #	L.A.S. PARTIC NO.	VOLATILE			SEM-VOLATILE				PESTICIDE		
		TOLUENE-08 (80-110)	MIB (80-110)	1,2-DICHLOROETHANE-04 (70-114)	MIBS-BENZENE-03 (80-114)	1,1-DIFLUOROETHYLENE (43-110)	TERPENEYL-014 (53-141)	PHENOL-03 (10-84)	1,1-DIFLUOROETHYLENE (81-100)	2,4,6-TRIBROMOPHENOL (10-123)	AMULIN-CHLOROPHATE (24-104)
17349	AA5662	105.	109.	100.							
17351	AA5664	115.†	29.†	102.							
17353	AA5666	103.	116.	83.							
17354	AA5668	103.	120.†	83.							
17355	AA5870	100.	170.†	91.							
17356	AA5872	107.	96.	16.							
17357	AA5878	111.†	93.	108.							
	MILK-1737	105.	107.	97.							
	MILK-1738	105.	107.	95.							

2601

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS
 * ADVISORY LIMITS ONLY
 Volatiles: 5 out of 27; outside of QC limits
 Semi-Volatiles: _____ out of _____; outside of QC limits
 Pesticides: _____ out of _____; outside of QC limits

Comments: 14717-14805 and 14800-14803 VOST TUBE RUNS HAD INSTRUMENTAL FAILURES, AND SURROGATE RECOVERIES WERE NOT VALID.

5001

WATER CONTAMINATE PERMITS RECOVERY SUMMARY

Contract Laboratory I.T.A.S. - Knoxville Contract No. _____

Case No. EGG 23549

000

Low _____ Medium _____

WATER TRAFFIC NO.	VOLATILE			SEMI-VOLATILE			PESTICIDE	
	10-11-112	11-11-113	12-11-114	13-11-115	14-11-116	15-11-117	16-11-118	17-11-119
YB-1-F								
YB-2-F								
YB-3-F								
YB-1-F-D								
YB-2-F-D								
YB-3-F-D								

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS
 * ADVISORY LIMITS ONLY
 Volatiles: out of _____ } outside of QC limits
 Semi-Volatiles: 2 out of 36 } outside of QC limits
 Pesticides: out of _____ } outside of QC limits

Comments: SURROGATES MAY BE DILUTED OUT BY DILUTION, AS IN VA-2-F-DIC.

1000

Case No. EGG 23612 Contract Laboratory ITAS Knoxville Contract No. _____

WATER CONTAMINANT GENT RECOVERY SUMMARY

300 TRAFFIC NO.	VOLATILE				SEMI-VOLATILE				PESTICIDE	
	TOLUENE-D8 (88-1101)	M/S (89-1193)	1,2-DICHLORO- ETHANE-D4 (78-114)	NITRO- BENZENE-D3 (94-114)	2-FLUORO- BIPHENYL (43-118)	TECAPHENYL- D13 (33-1-1)	PHENOL-D5 (10-94)	2-FLUORO- PHENOL (81-100)	2,4,6-TRIBROMO PHENOL (10-123)	DIBUTYL- CHLOROPHTH (12-134)
AA6498	115.	117.	101.							
AA6500	127.*	51.*	106.							
AA6502	106.	119.*	103.							
AA6504	107.	112.	97.							
AA6506	106.	98.	97.							
AA6508	223.*	163.*	100.							
AA6510	105.	119.*	101.							
MBX12302	105.	107.	95.							

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS
 * ADVISORY LIMITS ONLY
 Volatiles: 6 out of 24; outside of QC limits
 Semi-Volatiles: _____ out of _____; outside of QC limits
 Pesticides: _____ out of _____; outside of QC limits

Comments: _____

0003

..... VOLATILE SEMI-VOLATILE PESTICIDE

Case No. EGG 23612 Contract Laboratory IAS-Knoxville Contract No. _____

SNO TRAFFIC NO.	VOLATILE			SEMI-VOLATILE			PESTICIDE			
	1,2-DICHLORO-ETHANE-04 (08-114)	M/B (08-118)	1,1-DICHLORO-ETHANE-04 (08-114)	TRICHLORO-ETHYLENE-03 (08-114)	2-FLUORO-BIPHENYL (42-110)	TEMPERENTYL-014 (03-141)	PHENOL-05 (10-04)	2-FLUORO-PHENOL (31-100)	2,4,6-TRIBROMO-PHENOL (10-123)	DIBUTYL-CALCULONATE (12-184)
WST-5-C	10.8	10.1	94	not submitted	Ym 11.5(0)					
WST-5-C*	10.3	10.8	92							
WST-6-C	10.6	10.7	100							
WST-6-C.1	10.3	10.5	102							

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS
 * ADVISORY LIMITS ONLY.
 Volatiles: _____ out of _____ ; outside of QC limits
 Semi-Volatiles: _____ out of _____ ; outside of QC limits
 Pesticides: _____ out of _____ ; outside of QC limits

Comments: _____

Laboratory ID: ITAS Knoxville
 Case: EG&G
 Concentration Units: ug/g

Inorganics Data Summary
 Soil Samples

Analyte	AD-1	AD-2	AD-3	AD-5	AD-6
SULFIDE	110.00	93.00	70.00	110.00	34.00
PH	11.55	10.74	11.10	11.99	10.82
CYANIDE	0.50 U	0.50 U	1.00	0.70	0.70
CYANIDE (SP) *	NA	NA	0.01 U	0.01 U	0.01 U

* - Concentration Units: ug/L

NA - Analysis not requested.

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
 Case: EC&G
 Concentration Units: ug/L

Inorganics Data Summary
 Stack/Water Samples

Analyte	VB-1-Cl-	VB-2-Cl-	VB-3-Cl-	VB-5-Cl-	VB-6-Cl-	NaOH Blk	POTW
CHLORIDE	1.00	1.30	0.50	0.80	0.50	0.50	NA
BOD	NA	NA	NA	NA	NA	NA	2.00
COD	NA	NA	NA	NA	NA	NA	7.70

NA - Analysis not requested.

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.



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ANALYTICAL SERVICES

5815 Middlebrook Pike • Knoxville, Tennessee 37921 • 615-588-6401



CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE EGG 23550
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Three (3) ash samples received December 9, 1986

Concentration units are ug/gram (ppm) on a dry weight basis unless otherwise stated

	<u>Cyanide</u>	<u>Sulfide</u>	<u>pH</u> <u>(standard units)</u>
AD-1	<0.5	110	11.55
AD-2	<0.5	93	10.74
AD-3	1.0	70.	11.10

Approved by

Assistant Laboratory Manager

Title



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93-9-89



ANALYTICAL SERVICES



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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Two (2) soil and two (2) ash samples received December 19, 1986
Concentration units are ug/gram (ppm) on a dry weight basis unless otherwise stated

	<u>Cyanide</u>	<u>Sulfide</u>	<u>pH</u> <u>(standard units)</u>
FS-6	<0.6	17	7.27
AD-6	0.7	34	10.82
FS-5	<0.6	18	7.24
AD-5	0.7	110	11.99

Approved by

R. M. Wagner

Assistant Laboratory Manager

Title



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83-9-85



ANALYTICAL SERVICES



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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

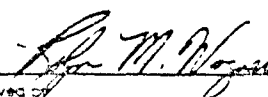
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: One (1) ash sample received December 9, 1986

Concentration units are mg/liter (ppm) in the extract unless otherwise stated

	<u>AD-3</u>
Cyanide	<0.01
pH (standard units)	6.97
Liquid to Solid Ratio (vol.)	0
Original Weight (solids)	100.04 g
Final Volume (extract)	950 ml

Sample extracted in accordance with "EP Toxicity Test - Extraction Procedure," Federal Register, Vol. 45, No. 98, p. 33127-33128.


Approved by _____
Assistant Laboratory Manager
Title _____



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91-3-85



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CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

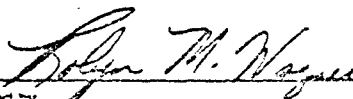
RE: USAF NC8C Full Scale Demo - 12/86

Sample Description: Two (2) ash samples received December 19, 1986

Concentration units are mg/liter (ppm) in the extract unless otherwise stated

	<u>AD-6</u>	<u>AD-5</u>
Cyanide	<0.01	<0.01
pH (standard units)	6.65	6.85
Liquid to Solid Ratio (vol.)	0	0
Original Weight (solids)	50.00 g	100.11 g
Final Volume (extract)	975 ml	940 ml

Sample extracted in accordance with "EP Toxicity Test - Extraction Procedure," Federal Register, Vol. 45, No. 98, p. 33127-33128.


Approved by _____
Assistant Laboratory Manager
Title _____



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83-0-23



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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23549
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Three (3) liquid samples received December 9, 1986

Concentration units are mg/liter (ppm) unless otherwise stated

	<u>Chloride</u>	<u>Total Sample Volume (liters)</u>
VB-1-C1-	1.0	0.20
VB-2-C1-	1.3	0.04
VB-3-C1-	0.5	0.29

Edgar M. Hayes

Approved by: Assistant Laboratory Manager

Title



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82-9-83



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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23612
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Three (3) liquid samples received December 17, 1986

Concentration units are mg/liter (ppm) unless otherwise stated

	<u>Chloride</u>	<u>Total Sample Volume (liters)</u>
VB-5-C1-	0.8	0.30
VB-6-C1-	0.5	0.26
NaOH Blank	0.5	0.51

Robert M. Wagner
Approved by _____
Assistant Laboratory Manager
Title _____



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93-9-45



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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

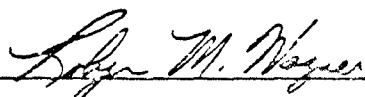
DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23610
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: One (1) water sample received December 18, 1986

Concentration units are mg/liter (ppm)

	<u>Biochemical Oxygen Demand</u>	<u>Chemical Oxygen Demand</u>
POTW, 12/18/86	2	7.7


Approved by _____
Assistant Laboratory Manager
Title _____



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85-4-45

OTHER MISCELLANEOUS ANALYSES

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - VOST ANALYSIS

PRODUCED ON 01/17/87 AT 15:21 PAGE 1

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE
EGG23549	AA5859	VOST-1-C	12
	AA5860	VOST-2-C	12
	AA5861	VOST-3-C	12
	AA5862	17939	61
	AA5863	17940	61
	AA5864	17941	61
	AA5865	17942	61
	AA5866	17943	61
	AA5867	17944	61
	AA5868	14793	61
	AA5869	14796	61
	AA5870	14794	61
	AA5871	14797	61
	AA5872	14795	61
	AA5873	14798	61
	AA5874	14799	61
	AA5875	14805	61
	AA5876	14800	61
	AA5877	14803	61
	AA5878	14801	61
AA5879	14804	61	
EGG23612	AA6496	VOST-5-C	12
	AA6497	VOST-6-C	12
	AA6498	14812	61
	AA6499	14815	61
	AA6500	14813	61
	AA6501	14816	61
	AA6502	14814	61
	AA6503	14817	61
	AA6504	17945	61
	AA6505	17948	61
	AA6506	17946	61
	AA6507	17949	61
AA6508	17947	61	
AA6509	17950	61	
AA6510	Tenax blank	61	
AA6511	Charcoal Blank	61	

SAM. TYPE - 12=VOST CONDENSATE, 61=VOST TUBE

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - PAH ANALYSIS

PRODUCED ON 01/17/87 AT 15:56 PAGE 1

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=====
PROJECT      SAMPLE # CLIENT #          SAM. TYPE
-----
EGG23548    AA5837  ENT-B          01
            AA5838  ENT-1          01
            AA5839  ENT-2          01
EGG23549    AA5844  VB-1-F         63
            AA5845  VB-2-F         63
            AA5846  VB-3-F         63
            AA5847  VB-1-XAD       61
            AA5848  VB-1-PW        12
            AA5849  VB-1-C         12
            AA5850  VB-2-XAD       61
            AA5851  VB-2-PW        12
            AA5852  VB-2-C         12
            AA5853  VB-3-XAD       61
            AA5854  VB-3-PW        12
            AA5855  VB-3-C         12
EGG23550    AA5912  FS-1           31
            AA5913  FS-2           31
            AA5914  FS-3           31
            AA5915  AD-1           31
            AA5916  AD-2           31
            AA5917  AD-3           31
            AA5919  FS-1 QC       31
            AA5919  FS-1 QC       31
EGG23609    AA6432  FS-6           31
            AA6433  AD-6           31
            AA6434  FS-5           31
            AA6435  AD-5           31
            AA6436  AD-5           31
            AA6437  AD-5           31
            AA6448  BS-1           31
EGG23610    AA6454  ENT 5          01
            AA6457  ENT-6          01
            AA6460  POTW           01
            AA6467  CW             01
            AA6473  WB1            01
EGG23612    AA6487  XAD Blank     61
            AA6488  VB-5-XAD       61
            AA6489  VB-5-PW        12
            AA6490  VB-5-C         12
            AA6491  VB-6-XAD       61
            AA6492  VB-6-PW        12
            AA6493  VB-6-C         12
            AA6512  VB-5-F         63
            AA6513  VB-6-F         63
            AA6814  T Blk 791,ReagentBLX 12
    
```

SAM. TYPE - 01=WATER, 31=SOIL, 12,61,63=STACK COMPONENTS

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - TOXAPHENE/PCB ANALYSIS

PRODUCED ON 01/17/87 AT 17:31 PAGE 1

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=====
PROJECT   SAMPLE # CLIENT #           SAM. TYPE
-----
EGG23548  AA5831  ENT-B           01
          AA5832  ENT-1           01
          AA5833  ENT-2           01
EGG23549  AA5844  VB-1-F         63
          AA5845  VB-2-F         63
          AA5846  VB-3-F         63
          AA5847  VB-1-XAD       61
          AA5848  VB-1-PW       12
          AA5849  VB-1-C        12
          AA5850  VB-2-XAD       61
          AA5851  VB-2-PW       12
          AA5852  VB-2-C        12
          AA5853  VB-3-XAD       61
          AA5854  VB-3-PW       12
          AA5855  VB-3-C        12
EGG23550  AA5896  FS-1           31
          AA5897  FS-2           31
          AA5898  FS-3           31
          AA5899  AD-1           31
          AA5900  AD-2           31
          AA5901  AD-3           31
          AA5902  FS-1 QC       31
          AA5903  FS-1 QC       31
EGG23509  AA6420  FS-6           31
          AA6421  AD-6           31
          AA6422  FS-5           31
          AA6423  AD-5           31
          AA6424  AD-5           31
          AA6425  AD-5           31
          AA6446  BS-1           31
EGG23610  AA6452  ENT 5          01
          AA6457  ENT 6          01
          AA6460  POTW          01
          AA6465  CW            01
          AA6471  WB1           01
EGG23612  AA6487  XAD Blank     61
          AA6488  VB-5-XAD      61
          AA6489  VB-5-PW      12
          AA6490  VB-5-C       12
          AA6491  VB-6-XAD     61
          AA6492  VB-6-PW     12
          AA6493  VB-6-C       12
          AA6512  VB-5-F       63
          AA6513  VB-6-F       63
          AA6814  T Blk 791, ReagentBLK 12
    
```

SAM. TYPE - 01=WATER, 31=SOIL, 12,61,63=STACK COMPONENTS

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - HERBICIDE ANALYSIS

PRODUCED ON 01/17/87 AT 18:52 PAGE 1

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE	
EGG23548	AA5834	ENT-B	01	
	AA5835	ENT-1	01	
	AA5836	ENT-2	01	
EGG23549	AA5844	VB-1-F	63	
	AA5845	VB-2-F	63	
	AA5846	VB-3-F	63	
	AA5847	VB-1-XAD	61	
	AA5848	VB-1-FW	12	
	AA5849	VB-1-C	12	
	AA5850	VB-2-XAD	61	
	AA5851	VB-2-FW	12	
	AA5852	VB-2-C	12	
	AA5853	VB-3-XAD	61	
	AA5854	VB-3-FW	12	
	AA5855	VB-3-C	12	
	EGG23550	AA5904	FS-1	31
AA5905		FS-2	31	
AA5906		FS-3	31	
AA5907		AD-1	31	
AA5908		AD-2	31	
AA5909		AD-3	31	
AA5910		FS-1 QC	31	
AA5911		FS-1 QC	31	
EGG23609		AA6426	FS-6	31
		AA6427	AD-6	31
	AA6428	FS-5	31	
	AA6429	AD-5	31	
	AA6430	AD-5	31	
	AA6431	AD-5	31	
	AA6447	BS-1	31	
	EGG23610	AA6453	ENT 5	01
AA6457		ENT 6	01	
AA6460		POTW	01	
AA6466		CW	01	
AA6472		WB1	01	
EGG23612	AA6487	XAD Blank	61	
	AA6488	VB-5-XAD	61	
	AA6489	VB-5-FW	12	
	AA6490	VB-5-C	12	
	AA6491	VB-6-XAD	61	
	AA6492	VB-6-FW	12	
	AA6493	VB-6-C	12	
	AA6512	VB-5-F	63	
	AA6513	VB-6-F	63	
	AA6814	T Blk 791, ReagentBLX	12	

SAM. TYPE - 01=WATER, 31=SOIL, 12,61,63=STACK COMPONENTS

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - HERBICIDE ANALYSIS

PRODUCED ON 01/17/87 AT 18:59 PAGE 2

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE
EGG23611	AA6477	14820	63
	AA6478	14821	63
	AA6479	14822	63
	AA6480	14749	63
	AA6481	17962	63
	AA6482	17963	63
	AA6483	17964	63
	AA6484	17966	63
	AA6485	17967	63
	AA6486	17968	63

SAM. TYPE - 63=AIR FILTER

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

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EG&G - METALS ANALYSIS

PRODUCED ON 01/17/87 AT 18:08

PAGE 1

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PROJECT	SAMPLE #	CLIENT #	SAM. TYPE
EGG23548	AA5840	ENT-B	01
	AA5841	ENT-1	01
	AA5842	ENT-2	01
	AA5843	BR-1	01
EGG23550	AA5920	FS-1	31
	AA5921	FS-2	31
	AA5922	FS-3	31
	AA5923	AD-1	31
	AA5924	AD-2	31
	AA5925	AD-3	31
	AA5926	FS-1 QC	31
	AA5927	FS-1 QC	31
EGG23609	AA6438	FS-6	31
	AA6439	AD-6	31
	AA6440	FS-5	31
	AA6441	AD-5	31
	AA6442	AD-5	31
	AA6443	AD-5	31
	AA6449	BS-1	31
EGG23610	AA6455	ENT 5	01
	AA6458	ENT 6	01
	AA6461	POTW	01
	AA6468	CW	01
	AA6474	WB1	01
	AA6475	BE5	01
	AA6476	BE6	01

SAM. TYPE - 01=WATER, 31=SOIL

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - INORGANIC ANALYSIS

PRODUCED ON 01/18/87 AT 14:08 PAGE 1

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE	TEST.DESC
EGG23549	AA5856	VB-1-Cl	12	Chloride
	AA5857	VB-2-CL	12	Chloride
	AA5858	VB-3-Cl	12	Chloride
EGG23550	AA5923	AD-1	31	Cyanide Sulfide pH
	AA5924	AD-2	31	Cyanide Sulfide pH
	AA5925	AD-3	31	Cyanide Sulfide pH
EGG23609	AA6439	AD-6	31	Cyanide Sulfide pH
	AA6441	AD-5	31	Cyanide Sulfide pH
EGG23610	AA6462	POTW,12-18-86	01	BOD (5-day) COD
EGG23612	AA6494	VB-5-Cl	12	Chloride
	AA6495	VB-6-Cl	12	Chloride
	AA6712	NaOH Blank	12	Chloride

SAM. TYPE - 01=WATER, 31=SOIL, 12=NaOH