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4 of 4

Kearney/Centaur Division
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Management
Consultants

AUG 1993 RECEIVED TQO

AT KEARNEY

August 6, 1993

Ms. Jeanette Duncan
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Reference: Purchase Order No. 272980; Task Order KD-93-11, Validation of 100 Area Data, Validation Report Submittal.

Internal: A.T. Kearney Project Number G954-11

Dear Ms. Duncan:

Enclosed are two copies of the following data validation report:

- WHC-SD-EN-TI-168, Rev. 1, 100-BC-5, First Quarter 1993 Groundwater Samples

The report now includes all data obtained during the sampling event, including that data not available when the original report was requested.

The gross alpha and gross beta results have been revalidated using the modified efficiency criteria provided by your department. The hydrazine results previously rejected due to incomplete supporting data have also been revalidated using the additional data provided since the preparation of the initial report.

The Section 5 tables and text have been modified to present the blank contamination information in a modified format which will hopefully lead to a clearer understanding of the material.

The modifications discussed above have all been made according to instructions received from Westinghouse Hanford.

Please feel free to contact me at (415) 595-4300 if you have any questions

Sincerely

Patricia M. Braun Deroche
for John W. Goode, Ph.D

Task Order Manager

RECEIVED AUG 0 1993 VALIDATION DOCUMENTATION

cc. R. Henckel, WHC
K. Pool, WHC
M. Schwab, WHC
J. Koehnen
L. Sherman
J. Darabaris

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Validation Reports 100-BC-5

DATA VALIDATION REPORT FOR THE 100-BC-5 OPERABLE UNIT FIRST QUARTER 1993 GROUNDWATER SAMPLING

Submitted To:

Westinghouse Hanford Company
P.O. Box 1970
2355 Stevens Drive
Richland, WA 99352

Submitted By:

A.T. Kearney, Inc.
2952 George Washington Way
Richland, WA 99352

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VALIDATION DOCUMENTATION
SDLA

In Response To:

Purchase Order 272980
Task Order KD-93-11

Document Control Number
WHC-SD-EN-TI-168, Rev. 1

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August 1993

DISCLAIMER

This report is designated as Revision 0. The report covers a specific site for a specific sampling time frame. The report addresses only those samples that have been provided for data validation review.

At the request of Westinghouse Hanford Company (Westinghouse-Hanford), a minimum of 20% of the total number of Sample Delivery Groups received by A.T. Kearney, Inc. from the 100-BC-5 Operable Unit First Quarter Sampling Remedial Investigation and their related quality assurance samples were reviewed and validated to verify that reported sample results were of sufficient quality to meet quality control objectives. With the consent of Westinghouse-Hanford, Sample Delivery Groups were chosen by A.T. Kearney, Inc. randomly, but reflect the overall character of samples within the unit. Findings are, however, insufficient to allow for extrapolation of these validation results to other unvalidated samples of Sample Delivery Groups within the 100-BC-5 Operable Unit.

ACRONYMS

%D	Percent difference
AA	Atomic absorption
BFB	Bromofluorobenzene
BNA	Base/neutral and acid (equivalent to semivolatiles)
CCB	Continuing calibration blank
CCV	Continuing calibration verification
CLP	Contract Laboratory Program
CRA	CRDL standard for AA
CRDL	Contract required detection limit
CRI	CRDL standard for ICP
CRII	CRDL standard for ICP initial
CRIF	CRDL standard for ICP final
CRQL	Contract required quantitation limit
DBC	Dibutylchlorendate
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objectives
EPA	U.S. Environmental Protection Agency
GC/MS	Gas chromatography/mass spectrometry
GC	Gas chromatography
GFAA	Graphite furnace atomic absorption
ICB	Initial Calibration Blank
ICP	Inductively coupled plasma emission spectrometry
ICS	ICP interference check sample
ICV	Initial calibration verification
IDL	Instrument detection limit
LCS	Laboratory control sample
LCSS	Laboratory control sample soil
LCSW	Laboratory control sample water
MSA	Method of standard addition
MS/MSD	Matrix spike/matrix spike duplicate
NV	Not Validated
PBS	Preparation blank soil
PBW	Preparation blank water
PCB	Polychlorinated biphenyl
PEM	Performance evaluation mixture
QA	Quality assurance
QC	Quality control
RF	Response factor
RIC	Reconstructed ion chromatogram
RPD	Relative percent difference
RRF	Relative response factor
RRT	Relative retention time
RSD	Relative standard deviation
RT	Retention time
SDG	Sample delivery group
SOW	Statement of work
TAL	Target analyte list
TCL	Target compound list
TIC	Tentatively identified compounds
TOC	Total organic carbon
TOX	Total organic halides
V	Validated
VOC	Volatile organic compounds

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1.0 INTRODUCTION

Westinghouse-Hanford has requested that a minimum of 20% of the total number of Sample Delivery Groups be validated for the 100-BC-5 Operable Unit First Quarter Sampling Remedial Investigation. Therefore, the data from the chemical analysis of ninety-one samples from this sampling event and their related quality assurance samples were reviewed and validated to verify that reported sample results were of sufficient quality to support decisions regarding remedial actions performed at this site. The samples were analyzed by Thermo-Analytic Laboratories (TMA) and Roy F. Weston Laboratories (WESTON) and Data Chem Laboratories using U.S. Environmental Protection Agency (EPA) CLP protocols.

Sample analyses included:

- Volatile organics
- Semivolatile organics
- Pesticide/PCB organics
- Inorganics
- General chemical parameters.

The following samples were obtained from the 100-BC-5 Operable Unit First Quarter Sampling event:

B07ZG2	B07ZJ3	B07ZL4	B07ZN5	B07ZQ6
B07ZG3	B07ZJ4	B07ZL5	B07ZN6	B07ZQ7
B07ZG4	B07ZJ5	B07ZL6	B07ZN7	B07ZQ8
B07ZG5	B07ZJ6	B07ZL7	B07ZN8	B07ZQ9
B07ZG6	B07ZJ7	B07ZL8	B07ZN9	B07ZR0
B07ZG7	B07ZJ8	B07ZL9	B07ZP0	B07ZR1
B07ZG8	B07ZJ9	B07ZM0	B07ZP1B	B07ZR2
B07ZG9	B07ZK0	B07ZM1	B07ZP2	B07ZR3
B07ZH0	B07ZK1	B07ZM2	B07ZP3	B07ZR4
B07ZH1	B07ZK2	B07ZM3	B07ZP4	B07ZR5
B07ZH2	B07ZK3	B07ZM4	B07ZP5	B07ZR6
B07ZH3	B07ZK4	B07ZM5	B07ZP6	B07ZR7
B07ZH4	B07ZK5	B07ZM6	B07ZP7	B07ZR8
B07ZH5	B07ZK6	B07ZM7	B07ZP8	B07ZR9
B07ZH6	B07ZK7	B07ZM8	B07ZP9	B07ZS0
B07ZH7	B07ZK8	B07ZM9	B07ZQ0	B07ZS1
B07ZH8	B07ZK9	B07ZN0	B07ZQ1	B07ZS2
B07ZH9	B07ZL0	B07ZN1	B07ZQ2	B07ZS3
B07ZJ0	B07ZL1	B07ZN2	B07ZQ3	B07ZS4
B07ZJ1	B07ZL2	B07ZN3	B07ZQ4	B07ZS5
B07ZJ2	B07ZL3	B07ZN4	B07ZQ5	B07ZS6

B07ZS7	B07ZT7	B07ZV7	B07ZW8	B07ZX9
B07ZS8	B07ZT8	B07ZV8	B07ZW9	B07ZY0
B07ZS9	B07ZT9	B07ZV9	B07ZX0	B07ZY1
B07ZT0	B07ZV0	B07ZW0	B07ZX2	B07ZY2
B07ZT1	B07ZV1	B07ZW1	B07ZX3	B07ZY3
B07ZT2	B07ZV2	B07ZW2	B07ZX4	B07ZY4
B07ZT3	B07ZV3	B07ZW3	B07ZX5	B07ZY5
B07ZT4	B07ZV4	B07ZW4	B07ZX6	B07ZY6
B07ZT5	B07ZV5	B07ZW5	B07ZX7	B07ZY7
B07ZT6	B07ZV6	B07ZW7	B07ZX8	B07ZY8

The table below lists the Sample Delivery Groups (SDGs) that were validated for this sampling event. The validated data and the non-validated results for the remaining samples are included in this report.

SDG Package No.	Matrix	No. of Samples Analyzed	Parameters
B07ZG2	W	6	VOC
B07ZG2	W	3	BNA, Pest/PCB, Wet Chem
B07ZG2	W	16	Inorganics, Wet Chem
B07ZG3	W	16	Inorganics
B07ZG7	W	20	VOC
B07ZG7	W	10	BNA, Pest/PCB
B07ZG7	W	4	Wet Chem
B07ZH0	W	16	Wet Chem
B07ZH1	W	17	Wet Chem
B07ZH7	W	6	VOC
B07ZH7	W	3	BNA, Pest/PCB, Wet Chem
B07ZM2	W	6	Wet Chem

Thirty-one samples were analyzed for radiochemical parameters by TMA and EcoTek. Analytical protocols specified in the *Westinghouse Hanford Company Statement of Work for Nonradioactive Inorganic/Organic and Radiochemical Analytical Services* were used. Sample analyses included the following:

- Gross alpha and gross beta determination
- Alpha spectroscopy
- Gamma spectroscopy

- Strontium-90
- Technetium-99
- Carbon-14
- Tritium.

SDG Package No.	Matrix	No. of Samples Analyzed	Parameters
B07ZG2	W	19	Radiochemistry
B07ZK7	W	10	Radiochemistry
B07ZW2	W	1	Radiochemistry
B07ZW7	W	1	Radiochemistry

The radiochemical data summary tables can be found following Section 13.8.

All of the data were analyzed by TMA. Data quality was reviewed and analytical results validated using Westinghouse-Hanford procedures and related EPA CLP protocols and guidelines. Data were qualified based upon their quality and the guidance provided by these sources. In instances where the two protocols differed, the Westinghouse-Hanford guidance was followed.

Two sets of split samples were submitted to TMA as shown below:

Set 1:

Sample No.	Split Sample No.	Well Location
B07ZL7, B07ZM0	B07ZW2	199-B4-8
B07ZL8	B07ZW3	199-B4-8
B07ZL9	B07ZW4	199-B4-8
B07ZM1	B07ZW5	199-B4-8

Set 2:

Sample No.	Split Sample No.	Well Location
B07ZK2, B07ZK5	B07ZW7	199-B4-4
B07ZK3	B07ZW8	199-B4-4
B07ZK4	B07ZW9	199-B4-4
B07ZK6	B07ZX0	199-B4-4

None of the split samples were part of the validated 20% and, therefore, could not be compared against the original. All results do appear in the summary tables within this report.

Two sets of field duplicate samples were submitted to TMA as shown below.

Set 1:

Sample No.	Duplicate Sample No.	Well Location
B07ZL7	B07ZV2	199-B4-8
B07ZL8	B07ZV3	199-B4-8
B07ZL9	B07ZV4	199-B4-8
B07ZM0	B07ZV5	199-B4-8
B07ZM1	B07ZV6	199-B4-8

Set 2:

Sample No.	Duplicate Sample No.	Well Location
B07ZK2	B07ZV7	199-B4-4
B07ZK3	B07ZV8	199-B4-4
B07ZK4	B07ZV9	199-B4-4
B07ZK5	B07ZW0	199-B4-4
B07ZK6	B07ZW1	199-B4-4

Sample numbers B07ZK2 and B07ZK3 were compared for accuracy against their respective duplicate samples B07ZV7 and B07ZV8 using sample guidelines for determining the RPD between a sample and its duplicate. All results fell within the required control limit. No other sample and duplicate sample pair were part of the validated 20% and, therefore, could not be compared. All results do appear in the summary tables within this report.

Two sets of equipment blanks were submitted to TMA as shown in the table below. The first set was collected on 1/28/93 and designated EB-1. The second set was collected on 1/28/93 and designated EB-2.

Set 1: Sample Number	Set 2: Sample Number
B07ZX2	B07ZX7
B07ZX3	B07ZX8
B07ZX4	B07ZX9
B07ZX5	B07ZY0
B07ZX6	B07ZY1

Under EPA protocol, equipment blanks are water samples used to indicate whether or not decontamination procedures were adequate or that contamination was not inherent in the equipment used. The equipment blank information provided was inadequate to determine what contamination, if any, was a result of the equipment used. Equipment blanks require well number locations and associated sample numbers along with sample dates in order to make such a determination. An equipment blank sample should be taken prior to each sampling event/sampling day on new or cleaned equipment and not as one batch following an entire round of sampling.

The report is broken down into sections for each chemical analysis and radiochemical analysis type. Each section addresses the data package completeness, holding time adherence, instrument calibration and tuning acceptability, blank results, accuracy, precision, system performance, as well as the compound identification and quantitation. In addition, each section has an overall assessment and summary for the data packages reviewed for the particular chemical/radiochemical analyses. Detailed backup information is provided to the reader by SDG No. and sample number. For each data package, a matrix of chemical analysis per sample number is presented, as well as data qualification summaries.

Laboratory and data validation personnel added qualifiers to the reported data based on specified data quality objectives. The data reporting qualifiers are summarized as follows:

U - Indicates the analyte was analyzed for and not detected. The value reported is the sample quantitation limit corrected for dilutions and moisture content. It should be noted that the sample quantitation limit may be higher or lower than the contract or method required detection limit, depending on instrumentation, matrix and concentration factors.

J - Indicates the analyte was analyzed for and detected. However, the associated value is considered to be an estimate due to identified QC deficiencies. Data flagged with a "J" may be usable for decision making purposes, depending upon the DQOs of the project. Laboratories qualify all reported organic detects below CRQL with a "J" per the CLP procedures.

UJ - Indicates the analyte was analyzed for and not detected. However, the associated detection limit is considered to be an estimate due to identified QC deficiencies. Detection limits flagged with a "UJ" may be usable for decision making purposes, depending upon the DQOs of the project.

JN - Indicates the analyte was analyzed for and that there is presumptive evidence of the presence of the compound. The concentration reported is considered an estimate which should be used for informational purposes only.

E - Indicates the analyte was analyzed for and detected at a concentration outside of the calibration range of the instrument. All reported concentrations flagged with an "E" are estimates which may contain significant error.

R - Indicates the analyte was analyzed for and due to a significant QC deficiency, the data are deemed unusable. Analytic results flagged "R" are invalid and provide no information as to whether or not the analyte is present.

The results of data validation performed for the 100-BC-5 Operable Unit First Quarter 1993 Groundwater Sampling are contained in the tables following each of the chapters in this report.

Several general quality trends which resulted in data qualification were observed. These included:

- Minor blank contamination was noted in the volatile and semivolatile results for a few samples. The contaminants were compounds commonly found in analytical laboratories and the corresponding sample results were flagged accordingly.

- All sample vials received by the laboratory for two VOC samples contained air bubbles. All non-detects for these samples were rejected and flagged "R".

- The metal analysis showed minor matrix spike accuracy problems and analytical spike recoveries below the QC limit. Approximately 30 percent of the metals results were flagged "J" due to these factors.

- Some laboratory blank contamination was noted in the inorganics analysis. Associated results were flagged accordingly.

- The holding time from sample collection to preparation and analysis was exceeded for ammonia-nitrogen, pH, phosphate, sulfide, TOX and TDS in several wet chemistry data packages. Associated results were flagged accordingly.

- Sufficient continuing calibration verification (CCV) and continuing calibration blank (CCB) data for fluoride, chloride, phosphate and sulfate analyses were not provided. Associated results were qualified as estimates.

- The CCV and CCB frequencies in one TOC and one hydrazine data package were insufficient. Associated sample results were qualified as estimates.

- All TOX results in one data package were rejected and flagged "R" due to a lack of daily instrument calibration data.

- Due to low chemical yields, the isotopic plutonium and isotopic uranium results in one sample each were rejected and flagged "R".

- Due to slightly low LCS recovery results, all carbon-14 sample results in one SDG were qualified as estimates and flagged "J".

Laboratory data have been provided for hydrazine, TOC and TOX analyses. However, the data were either insufficient or incomplete and required qualification as specified in section 6.0 of this report.

In general, the protocol-specific QA/QC requirements were met for the samples analyzed in this investigation with the exceptions noted above and discussed in detail in the chapters to follow. All requested analyses were performed.

With the exceptions noted above, the protocol-specific data quality objectives in terms of precision, accuracy, completeness, representativeness, and comparability have been met.

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	VOLATILES
199-B2-12	B07ZG2	W	01/19/93	V	2-6
	B07ZG4	W	01/19/93	V	2-6
199-B2-13	B07ZG7	W	01/23/93	V	2-9
	B07ZG9	W	01/23/93	V	2-9
199-B3-1	B07ZH2	W	01/15/93	NV	2-13
	B07ZH4	W	01/15/93	NV	2-13
199-B3-46	B07ZH7	W	01/21/93	V	2-14
	B07ZH9	W	01/21/93	V	2-14
199-B3-47	B07ZJ2	W	01/19/93	V	2-6
	B07ZJ4	W	01/19/93	V	2-6
199-B4-1	B07ZJ7	W	01/21/93	V	2-14
	B07ZJ9	W	01/21/93	V	2-14
199-B4-4	B07ZK2	W	01/24/93	V	2-9
	B07ZK4	W	01/24/93	V	2-9
199-B4-5	B07ZK7	W	01/26/93	NV	2-17
	B07ZK9	W	01/26/93	NV	2-17
199-B4-7	B07ZL2	W	01/26/93	NV	2-17
	B07ZL4	W	01/26/93	NV	2-17
199-B4-8	B07ZL7	W	01/17/93	NV	2-18
	B07ZL9	W	01/17/93	NV	2-18
199-B4-9	B07ZM2	W	01/24/93	V	2-9
	B07ZM4	W	01/24/93	V	2-9
199-B5-1	B07ZM7	W	01/15/93	NV	2-13
	B07ZM9	W	01/15/93	NV	2-13
199-B5-2	B07ZN2	W	01/23/93	V	2-9
	B07ZN4	W	01/23/93	V	2-9
199-B8-6	B07ZN7	W	01/23/93	NV	2-19
	B07ZN9	W	01/23/93	NV	2-19
199-B9-1	B07ZP2	W	01/22/93	V	2-9
	B07ZP4	W	01/22/93	V	2-9
199-B9-2	B07ZP7	W	01/23/93	V	2-10
	B07ZP9	W	01/23/93	V	2-10
199-B9-3	B07ZQ2	W	01/22/93	V	2-10
	B07ZQ4	W	01/22/93	V	2-10

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	VOLATILES
699-63-90	B07ZQ7 B07ZQ9	W W	01/16/93 01/16/93	NV NV	2-18 2-18
699-65-72	B07ZR2 B07ZR4	W W	01/14/93 01/14/93	NV NV	2-13 2-13
699-65-83	B07ZR7 B07ZR9	W W	01/30/93 01/30/93	NV NV	2-20 2-20
699-66-64	B07ZS2 B07ZS4	W W	01/21/93 01/21/93	V V	2-14 2-14
699-71-77	B07ZS7 B07ZS9	W W	01/18/93 01/18/93	NV NV	2-18 2-18
699-72-73	B07ZT2 B07ZT4	W W	01/22/93 01/22/93	V V	2-10 2-10
699-72-92	B07ZT7 B07ZT9	W W	01/22/93 01/22/93	V V	2-10 2-10
199-B4-8	B07ZV2 B07ZV4	W W	01/17/93 01/17/93	NV NV	2-18 2-18
199-B4-4	B07ZV7 B07ZV9	W W	01/24/93 01/24/93	V V	2-10 2-10
199-B4-8	B07ZW2 B07ZW4	W W	01/17/93 01/17/93	V V	2-21 2-21
199-B4-4	B07ZW7 B07ZW9	W W	01/24/93 01/24/93	NV NV	2-21 2-21
EB-1	B07ZX2 B07ZX4	W W	01/28/93 01/28/93	NV NV	2-19 2-19
EB-2	B07ZX7 B07ZX9	W W	01/28/93 01/28/93	NV --	2-19 Analysis Cancelled
MB-1	B07ZY2	W	01/17/93	NV	2-18
MB-2	B07ZY3	W	01/26/93	NV	2-17
699-67-86	B07ZY4 B07ZY6	W W	01/19/93 01/19/93	V V	2-6 2-6

2.0 VOLATILE ORGANIC DATA VALIDATION

2.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were submitted for validation and found to be complete:

B07ZG2 B07ZG7 B07ZH7

2.2 HOLDING TIMES

Analytical holding times were assessed to ascertain whether the Westinghouse-Hanford holding time requirements for volatile organic analyses were met by the laboratory. The Westinghouse-Hanford holding time requirements for volatile organic analyses are as follows: soil samples must be analyzed within 14 days of the date of sample collection; aqueous samples must be analyzed within seven days of the date of sample collection (if unpreserved); and all samples must be shipped on ice to the laboratory and stored at 4°C until analysis.

Holding times for all samples were met.

2.3 INSTRUMENT CALIBRATION AND TUNING

Instrument calibration is performed to establish that the GC/MS instrument is capable of producing acceptable and reliable analytical data over a range of concentrations. The initial and continuing calibrations are to be performed according to CLP protocols. An initial multipoint calibration is performed prior to sample analysis to establish the linear range of the GC/MS instrument. Continuing calibration checks are performed to verify that instrument performance is stable and reproducible on a day-to-day basis.

All initial and continuing calibration results were acceptable.

2.3.1 GC/MS Tuning/Instrument Performance Check

Tuning is performed to ensure that mass resolution, identification, and, to some degree, sensitivity of the GC/MS instrument have been established. When analyzing for volatile organics, instrument tuning is performed with BFB. Instrument

tuning must be performed prior to the analysis of either standards or samples and must meet the criteria for acceptable GC/MS instrument tuning using BFB as outlined in Westinghouse-Hanford (WHC 1991) and in EPA (EPA 1988a and 1988b) criteria.

The original data were checked for transcription and calculation errors to verify that tuning criteria were met. Prior to calibration and sample analysis, all tuning criteria were met.

All GC/MS tuning data were acceptable.

2.4 BLANKS

Method blank and field blank analyses are performed to determine the extent of laboratory or field contamination of samples. No contaminants should be present in the blanks. Analytical results for analytes present in any sample at less than 5 times the concentration of that analyte found in associated blanks should be qualified as non-detects; common laboratory contaminants present at less than 10 times the concentration of that analyte are qualified as non-detects.

Due to the presence of laboratory blank contamination, the following samples were flagged "U" for methylene chloride:

- Sample numbers B07ZG2, B07ZJ2 and B07ZY4 in SDG No. B07ZG2.

Due to the presence of laboratory blank contamination, the following sample was flagged "U" for benzene:

- Sample numbers B07ZN2, B07ZQ2 and B07ZT2 in SDG No. B07ZG7.

Due to the presence of laboratory blank contamination, the following sample was flagged "U" for acetone:

- Sample number B07ZH7 in SDG No. B07ZH7.

Due to the presence of trip blank contamination, the following sample was flagged "U" for methylene chloride:

- Sample number B07ZN2 in SDG No. B07ZG7.

Due to the presence of trip blank contamination, the following sample was flagged "U" for acetone:

- Sample number B07ZP7 in SDG No. B07ZG7.

Due to the presence of trip blank contamination, the following sample was flagged "U" for 2-butanone:

- Sample number B07ZP7 in SDG No. B07ZG7.

Due to the presence of trip blank contamination, the following sample was flagged "U" for bromoform:

- Sample number B07ZP7 in SDG No. B07ZG7.

Due to the presence of trip blank contamination, the following sample was flagged "U" for 4-methyl-2-pentanone:

- Sample number B07ZP7 in SDG No. B07ZG7.

Due to the presence of trip blank contamination, the following sample was flagged "U" for 1,1,2,2-tetrachloroethane:

- Sample number B07ZP7 in SDG No. B07ZG7.

All other laboratory and trip blank results were acceptable.

2.5 ACCURACY

Accuracy was assessed by evaluating the recoveries of stable isotopically labeled surrogate compounds added to all samples and blanks, and by the analysis of a representative sample which was spiked with a variety of volatile organic compounds.

2.5.1 Matrix Spike Recovery

Matrix spike compounds are added to a sample which is representative of the sample delivery group. Matrix spike analyses are performed in duplicate using five compounds and should be within the established quality control limits (EPA 1988b). The matrix spike analyses estimate how much the target compounds are interfered with, either positively or negatively, by the sample matrix.

All MS/MSD results were acceptable.

2.5.2 Surrogate Recovery

Matrix-specific surrogate compound recovery control windows have been established by the EPA CLP program. When a surrogate compound recovery is out of the control window, all positively identified target compounds associated with the unacceptable surrogate recoveries are qualified as estimates (J). Undetected compounds are qualified as having an estimated detection limit (UJ).

All surrogate recovery results were acceptable.

2.6 PRECISION

Precision is expressed by the relative percent difference (RPD) between the recoveries of duplicate matrix spike analyses performed on a sample. When the laboratory has not performed duplicate spike analyses, precision may also be assessed using unspiked duplicate sample analyses. Field precision is measured by analyzing duplicate samples taken in the field.

All matrix spike/matrix spike duplicate RPD results were acceptable.

2.7 INTERNAL STANDARDS PERFORMANCE

Internal standard performance was assessed to determine whether abrupt changes in instrument response and sensitivity occurred that may have affected the reliability of the analytical data. The response (area or height) of the internal standards must not vary by more than 100 percent or -50 percent from the response of the internal standard that was used to calculate the upper and lower bounds. The upper and lower bounds define the range for acceptable internal standard response (area/height) for the sample analyses.

All internal standard recovery results were acceptable.

2.8 COMPOUND IDENTIFICATION AND QUANTITATION

The identity of detected compounds was confirmed to investigate the possibility of false positives. The confirmation of compound identification during the quality assurance review focuses on false positives because only mass spectra for positive identifications are submitted. However, target compounds that are reported as undetected are also evaluated to investigate the possibility of false negatives. Confirmation of possible false negatives is addressed by reviewing other factors relating to analytical sensitivity (e.g., relative response factors, detection limits, linearity, analytical recovery).

Compound quantitations and reported detection limits were recalculated for a minimum of 20 percent of the samples in each case to verify that they are accurate and are consistent with CLP requirements.

Below the CRQL, instrument precision becomes more variable as the instrument detection limit is approached. Therefore, the concentration of any compound that was detected below the CRQL was qualified as an estimate (J).

The reported results and quantitation limits were verified as correct in all cases.

2.9 OVERALL ASSESSMENT AND SUMMARY

A thorough review of ongoing data acquisition and instrument performance criteria was made to assess overall GC/MS instrument performance. No changes in instrument performance were noted that would result in the degradation of data quality. No indications of unacceptable instrument performance (i.e., shifts in baseline stability, retention time shifts, extraneous peaks, or sensitivity) were found during the quality assurance review.

Air bubbles were present in all sample vials received by the laboratory for sample number B07ZG2 in SDG No. B07ZG2 and sample number B07ZM4 in SDG No. B07ZG7. TMA was instructed to cancel the VOC analyses for these samples. Results were, however, reported by the laboratory. All results for these samples were, therefore, rejected, flagged "R" and are not usable for any purpose.

In general, the volatile data for all other samples reviewed in this report met the protocol-specified QA/QC requirements. Minor blank contamination was detected in several samples. The data are considered valid and usable within the standard error associated with the method. All other results are considered to be acceptable and usable for all purposes.

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZG2																				
Sample Number		B07ZG2		B07ZG4		B07ZJ2		B07ZJ4		B07ZY4		B07ZY6									
Location		199-B2-12		199-B2-12		199-B3-47		199-B3-47		699-67-86		699-67-86									
Remarks				TB				TB				TB									
Sample Date		01/19/93		01/19/93		01/19/93		01/19/93		01/19/93		01/19/93									
Analysis Date		01/26/93		01/26/93		01/26/93		01/26/93		01/26/93		01/26/93									
Volatile Organic Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloromethane	10	10	R	10	U	10	U	10	U	10	U	10	U								
Bromomethane	10	10	R	10	U	10	U	10	U	10	U	10	U								
Vinyl Chloride	10	10	R	10	U	10	U	10	U	10	U	10	U								
Chloroethane	10	10	R	10	U	10	U	10	U	10	U	10	U								
Methylene Chloride	10	10	R	3	J	10	U	6	J	10	U	3	J								
Acetone	10	10	R	10		10	U	6	J	10	U	7	J								
Carbon Disulfide	10	10	R	10	U	10	U	10	U	10	U	10	U								
1,1-Dichloroethene	10	10	R	10	U	10	U	10	U	10	U	10	U								
1,1-Dichloroethane	10	10	R	10	U	10	U	10	U	10	U	10	U								
1,2-Dichloroethene (total)	10	10	R	10	U	10	U	10	U	10	U	10	U								
Chloroform	10	10	R	10	U	10	U	10	U	10	U	10	U								
1,2-Dichloroethane	10	10	R	10	U	10	U	10	U	10	U	10	U								
2-Butanone	10	10	R	10	U	10	U	10	U	10	U	10	U								
1,1,1-Trichloroethane	10	10	R	10	U	10	U	10	U	10	U	10	U								
Carbon Tetrachloride	10	10	R	10	U	10	U	10	U	10	U	10	U								
Bromodichloromethane	10	10	R	10	U	10	U	10	U	10	U	10	U								
1,2-Dichloropropane	10	10	R	10	U	10	U	10	U	10	U	10	U								
cis-1,3-Dichloropropene	10	10	R	10	U	10	U	10	U	10	U	10	U								
Trichloroethene	10	10	R	10	U	10	U	10	U	10	U	10	U								
Dibromochloromethane	10	10	R	10	U	10	U	10	U	10	U	10	U								
1,1,2-Trichloroethane	10	10	R	10	U	10	U	10	U	10	U	10	U								
Benzene	10	10	R	10	U	10	U	10	U	10	U	10	U								
trans-1,3-Dichloropropene	10	10	R	10	U	10	U	10	U	10	U	10	U								
Bromoform	10	10	R	10	U	10	U	10	U	10	U	10	U								
4-Methyl-2-pentanone	10	10	R	10	U	10	U	10	U	10	U	10	U								
2-Hexanone	10	10	R	10	U	10	U	10	U	10	U	10	U								
Tetrachloroethene	10	10	R	10	U	10	U	10	U	10	U	10	U								
1,1,2,2-Tetrachloroethane	10	10	R	10	U	10	U	10	U	10	U	10	U								
Toluene	10	10	R	10	U	10	U	10	U	10	U	10	U								
Chlorobenzene	10	10	R	10	U	10	U	10	U	10	U	10	U								
Ethylbenzene	10	10	R	10	U	10	U	10	U	10	U	10	U								
Styrene	10	10	R	10	U	10	U	10	U	10	U	10	U								
Xylene (total)	10	10	R	10	U	10	U	10	U	10	U	10	U								

TB = Trip blank

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BLANK AND SAMPLE DATA SUMMARY

SDG: B07ZG2	REVIEWER: AW			DATE: 5/20/93				PAGE 1 OF 1	
COMMENTS:									
SAMPLE ID	COMPOUND	RESULT	Q	RT	UNITS	5X RESULT	10X RESULT	SAMPLES AFFECTED	QUALIFIER
VBLK0126B	Methylene chloride	2	J		ug/L		20	B07ZG2, B07ZJ2, B07ZY4	U

DATA QUALIFICATION SUMMARY

SDG: B07ZG2	REVIEWER: AW	DATE: 5/20/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Methylene chloride	U	B07ZG2, B07ZJ2, B07ZY4	Blank contamination
All VOC analytes	R	B07ZG2	Air bubbles in sample vials

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZG7																				
Sample Number		B07ZG7		B07ZG9		B07ZK2		B07ZK4		B07ZM2		B07ZM4		B07ZN2		B07ZN4		B07ZP2		B07ZP4	
Location		199-B2-13		199-B2-13		199-B4-4		199-B4-4		199-B4-9		199-B4-9		199-B5-2		199-B5-2		199-B9-1		199-B9-1	
Remarks				TB				TB				TB				TB				TB	
Sample Date		01/23/93		01/23/93		01/24/93		01/24/93		01/23/93		01/23/93		01/23/93		01/23/93		01/22/93		01/22/93	
Analysis Date		02/01/93		02/01/93		02/01/93		02/01/93		02/01/93		02/01/93		02/03/93		02/03/93		02/04/93		02/04/93	
Volatile Organic Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloromethane	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Bromomethane	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Vinyl Chloride	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Chloroethane	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Methylene Chloride	10	10	U	10	U	10	U	10	U	10	U	3	R	10	U	2	J	10	U	4	J
Acetone	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Carbon Disulfide	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
1,1-Dichloroethene	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
1,1-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
1,2-Dichloroethene (total)	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Chloroform	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
1,2-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
2-Butanone	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Carbon Tetrachloride	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Bromodichloromethane	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
1,2-Dichloropropane	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Trichloroethene	10	10	U	10	U	10	U	10	U	1	J	10	R	1	J	10	U	1	J	10	U
Dibromochloromethane	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Benzene	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	3	J	10	U	10	U
trans-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Bromoform	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
4-Methyl-2-pentanone	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
2-Hexanone	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Tetrachloroethene	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Toluene	10	10	U	10	U	3	J	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Chlorobenzene	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Ethylbenzene	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Styrene	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U
Xylene (total)	10	10	U	10	U	10	U	10	U	10	U	10	R	10	U	10	U	10	U	10	U

TB = Trip Blank, DUP = Duplicate

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Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZG7																				
Sample Number		B07ZP7		B07ZP9		B07ZQ2		B07ZQ4		B07ZT2		B07ZT4		B07ZT7		B07ZT9		B07ZV7		B07ZV9	
Location		199-B9-2		199-B9-2		199-B9-3		199-B9-3		699-72-73		699-72-73		699-72-92		699-72-92		199-B4-4		199-B4-4	
Remarks								TB				TB				TB		DUP		DUP, TB	
Sample Date		01/23/93		01/23/93		01/22/93		01/22/93		01/22/93		01/22/93		01/22/93		01/22/93		01/24/93		01/24/93	
Analysis Date		02/01/93		02/01/93		02/03/93		02/03/93		02/03/93		02/03/93		02/03/93		02/03/93		02/01/93		02/01/93	
Volatile Organic Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl Chloride	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methylene Chloride	10	10	U	3	J	10	U	4	J	10	U	3	J	10	U	2	J	10	U	5	J
Acetone	10	19	U	23		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Disulfide	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethene (total)	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	10	12	U	13		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	10	10	U	10	U	1	J	10	U	2	J	10	U	10	U	10	U	10	U	10	U
Dibromochloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzene	10	10	U	10	U	10	U	2	J	10	U	10	U	10	U	1	J	10	U	10	U
trans-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromoform	10	10	U	3	J	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Methyl-2-pentanone	10	10	U	5	J	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Hexanone	10	4	J	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	10	U	5	J	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	10	10	U	2	J	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Ethylbenzene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Styrene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Xylene (total)	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U

TB = Trip Blank, DUP = Duplicate

9713514.2408

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BLANK AND SAMPLE DATA SUMMARY

SDG: B07ZG7	REVIEWER: AW			DATE: 5/20/93				PAGE 1 OF 1	
COMMENTS:									
SAMPLE ID	COMPOUND	RESULT	Q	RT	UNITS	5X RESULT	10X RESULT	SAMPLES AFFECTED	QUALIFIER
VBLK0203B1	Benzene	1	J		ug/L	5		B07ZN2, B07ZQ2, B07ZT2	U
B07ZN4	Methylene chloride	2	J		ug/L		10	B07ZN2	U
B07ZP9	Acetone	23			ug/L		230	B07ZP7	U
B07ZP9	2-Butanone	13			ug/L		130	B07ZP7	U
B07ZP9	Bromoform	3	J		ug/L	15		B07ZP7	U
B07ZP9	4-Methyl-2-pentanone	5	J		ug/L	25		B07ZP7	U
B07ZP9	1,1,2,2-Tetrachloroethane	5	J		ug/L	25		B07ZP7	U

DATA QUALIFICATION SUMMARY

SDG: B07ZG7	REVIEWER: AW	DATE: 5/20/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Benzene	U	B07ZN2, B07ZQ2, B07ZT2	Blank contamination
Methylene chloride	U	B07ZN2	Trip blank contamination
All VOC analytes	R	B07ZM4	Air bubbles in sample vial
Acetone	U	B07ZP7	Trip blank contamination
2-Butanone	U	B07ZP7	Trip blank contamination
Bromoform	U	B07ZP7	Trip blank contamination
4-Methyl-2-pentanone	U	B07ZP7	Trip blank contamination
1,1,2,2-Tetrachloroethane	U	B07ZP7	Trip blank contamination

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZH2																				
Sample Number		B07ZH2		B07ZH4		B07ZM7		B07ZM9		B07ZR2		B07ZR4									
Location		199-B3-1		199-B3-1		199-B5-1		199-B5-1		699-65-72		699-65-72									
Remarks		NV		NV, TB		NV		NV, TB		NV		NV, TB									
Sample Date		01/15/93		01/15/93		01/15/93		01/15/93		01/14/93		01/14/93									
Analysis Date		01/22/93		01/22/93		01/22/93		01/25/93		01/22/93		01/22/93									
Volatile Organic Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Bromomethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Vinyl Chloride	10	10	U	10	U	10	U	10	U	10	U	10	U								
Chloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Methylene Chloride	10	10	U	10	U	10	U	10	U	10	U	10	U								
Acetone	10	10	U	10	U	10	U	10	U	10	U	10	U								
Carbon Disulfide	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,1-Dichloroethene	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,1-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,2-Dichloroethene (total)	10	10	U	10	U	10	U	10	U	10	U	10	U								
Chloroform	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,2-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
2-Butanone	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,1,1-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Carbon Tetrachloride	10	10	U	10	U	10	U	10	U	10	U	10	U								
Bromodichloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,2-Dichloropropane	10	10	U	10	U	10	U	10	U	10	U	10	U								
cis-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Trichloroethene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Dibromochloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,1,2-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Benzene	10	10	U	10	U	10	U	10	U	10	U	10	U								
trans-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Bromoform	10	10	U	10	U	10	U	10	U	10	U	10	U								
4-Methyl-2-pentanone	10	10	U	10	U	10	U	10	U	10	U	10	U								
2-Hexanone	10	10	U	10	U	10	U	10	U	10	U	10	U								
Tetrachloroethene	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,1,2,2-Tetrachloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Toluene	10	1	J	10	U	10	U	10	U	10	U	10	U								
Chlorobenzene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Ethylbenzene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Styrene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Xylene (total)	10	10	U	10	U	10	U	10	U	10	U	10	U								

NV = Not Validated, TB= Trip Blank

9713514.2411

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Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZH7																				
Sample Number		B07ZH7		B07ZH9		B07ZJ7		B07ZJ9		B07ZS2		B07ZS4									
Location		199-B3-46		199-B3-46		199-B4-1		199-B4-1		699-66-64		699-66-64									
Remarks				TB				TB				TB									
Sample Date		01/21/93		01/21/93		01/21/93		01/21/93		01/21/93		01/21/93									
Analysis Date		01/26/93		01/26/93		01/26/93		01/26/93		01/26/93		01/26/93									
Volatile Organic Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Bromomethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Vinyl Chloride	10	10	U	10	U	10	U	10	U	10	U	10	U								
Chloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Methylene Chloride	10	10	U	4	J	10	U	4	J	10	U	3	J								
Acetone	10	11	U	10	U	10	U	10	U	10	U	10	U								
Carbon Disulfide	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,1-Dichloroethene	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,1-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,2-Dichloroethene (total)	10	10	U	10	U	10	U	10	U	10	U	10	U								
Chloroform	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,2-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
2-Butanone	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,1,1-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Carbon Tetrachloride	10	10	U	10	U	10	U	10	U	10	U	10	U								
Bromodichloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,2-Dichloropropane	10	10	U	10	U	10	U	10	U	10	U	10	U								
cis-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Trichloroethene	10	2	J	10	U	1	J	10	U	10	U	10	U								
Dibromochloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,1,2-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Benzene	10	10	U	10	U	10	U	10	U	10	U	10	U								
trans-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Bromoform	10	10	U	10	U	10	U	10	U	10	U	10	U								
4-Methyl-2-pentanone	10	10	U	10	U	10	U	10	U	10	U	10	U								
2-Hexanone	10	10	U	10	U	10	U	10	U	10	U	10	U								
Tetrachloroethene	10	10	U	10	U	10	U	10	U	10	U	10	U								
1,1,2,2-Tetrachloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U								
Toluene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Chlorobenzene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Ethylbenzene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Styrene	10	10	U	10	U	10	U	10	U	10	U	10	U								
Xylene (total)	10	10	U	10	U	10	U	10	U	10	U	10	U								

TB = Trip Blank

9713514.2412

BLANK AND SAMPLE DATA SUMMARY

SDG: B07ZH7	REVIEWER: AW			DATE: 5/22/93				PAGE 1 OF 1	
COMMENTS:									
SAMPLE ID	COMPOUND	RESULT	Q	RT	UNITS	5X RESULT	10X RESULT	SAMPLES AFFECTED	QUALIFIER
VBLK0126B	Acetone	14			ug/L		140	B07ZH7	U

DATA QUALIFICATION SUMMARY

SDG: B07ZH7	REVIEWER: AW	DATE: 5/22/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Acetone	U	B07ZH7	Blank contamination

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZK7																				
Sample Number		B07ZK7		B07ZK9		B07ZL2		B07ZL4		B07ZY3											
Location		199-B4-5		199-B4-5		199-B4-7		199-B4-7		MB-2											
Remarks		NV		NV, TB		NV		NV, TB		NV											
Sample Date		01/26/93		01/26/93		01/26/93		01/26/93		01/26/93											
Analysis Date		02/03/93		02/03/93		02/03/93		02/03/93		02/03/93											
Volatile Organic Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloromethane	10	10	U	10	U	10	U	10	U	10	U										
Bromomethane	10	10	U	10	U	10	U	10	U	10	U										
Vinyl Chloride	10	10	U	10	U	10	U	10	U	10	U										
Chloroethane	10	10	U	10	U	10	U	10	U	10	U										
Methylene Chloride	10	10	U	10	U	10	U	10	U	3	J										
Acetone	10	10	U	8	J	10	U	10	U	10	U										
Carbon Disulfide	10	10	U	10	U	10	U	10	U	10	U										
1,1-Dichloroethene	10	10	U	10	U	10	U	10	U	10	U										
1,1-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U										
1,2-Dichloroethene (total)	10	10	U	10	U	10	U	10	U	10	U										
Chloroform	10	10	U	10	U	10	U	10	U	10	U										
1,2-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U										
2-Butanone	10	10	U	10	U	10	U	10	U	10	U										
1,1,1-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U										
Carbon Tetrachloride	10	10	U	10	U	10	U	10	U	10	U										
Bromodichloromethane	10	10	U	10	U	10	U	10	U	10	U										
1,2-Dichloropropane	10	10	U	10	U	10	U	10	U	10	U										
cis-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U										
Trichloroethene	10	2	J	10	U	2	J	10	U	10	U										
Dibromochloromethane	10	10	U	10	U	10	U	10	U	10	U										
1,1,2-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U										
Benzene	10	5	J	5	J	1	J	2	J	10	U										
trans-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U										
Bromoform	10	10	U	10	U	10	U	10	U	10	U										
4-Methyl-2-pentanone	10	10	U	10	U	10	U	10	U	10	U										
2-Hexanone	10	10	U	10	U	10	U	10	U	10	U										
Tetrachloroethene	10	10	U	10	U	10	U	10	U	10	U										
1,1,2,2-Tetrachloroethane	10	10	U	10	U	10	U	10	U	10	U										
Toluene	10	2	J	10	U	3	J	10	U	10	U										
Chlorobenzene	10	10	U	10	U	10	U	10	U	10	U										
Ethylbenzene	10	10	U	10	U	10	U	10	U	10	U										
Styrene	10	10	U	10	U	10	U	10	U	10	U										
Xylene (total)	10	10	U	10	U	10	U	10	U	10	U										

NV = Not Validated, TB = Trip Blank

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9713514.2416

VOLATILE ORGANIC ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZL7																		
Sample Number		B07ZL7		B07ZL9		B07ZQ7		B07ZQ9		B07ZS7		B07ZS9		B07ZV2		B07ZV4		B07ZY2	
Location		199-B4-8		199-B4-8		699-63-90		699-63-90		699-71-77		699-71-77		199-B4-8		199-B4-8		MB-1	
Remarks		NV		NV, TB		NV		NV, TB		NV		NV, TB		NV, DUP		NV, TB, DUP		NV, TB	
Sample Date		01/17/93		01/17/93		01/16/93		01/16/93		01/18/93		01/18/93		01/17/93		01/17/93		01/17/93	
Analysis Date		01/22/93		01/22/93		01/23/93		01/23/93		01/23/93		01/25/93		01/25/93		01/25/93		01/22/93	
Volatile Organic Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl Chloride	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methylene Chloride	10	10	U	10	U	10	U	3	J	10	U	10	U	10	U	4	J	10	U
Acetone	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Disulfide	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethene (total)	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Dibromochloromethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromoform	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Methyl-2-pentanone	10	2	J	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Hexanone	10	3	J	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	1	J	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Ethylbenzene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Styrene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Xylene (total)	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U

NV = Not Validated, DUP = Duplicate, TB = Trip Blank

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZN7																				
Sample Number		B07ZN7		B07ZN9		B07ZX2		B07ZX4		B07ZX7											
Location		199-B8-6		199-B8-6		EB-1		EB-1		EB-2											
Remarks		NV		NV, TB		NV		NV, TB		NV											
Sample Date		01/23/93		01/23/93		01/28/93		01/28/93		01/28/93											
Analysis Date		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93											
Volatile Organic Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloromethane	10	10	U	10	U	10	U	10	U	10	U										
Bromomethane	10	10	U	10	U	10	U	10	U	10	U										
Vinyl Chloride	10	10	U	10	U	10	U	10	U	10	U										
Chloroethane	10	10	U	10	U	10	U	10	U	10	U										
Methylene Chloride	10	10	U	2	J	10	U	10	U	10	U										
Acetone	10	10	U	10	U	10	U	10	U	10	U										
Carbon Disulfide	10	10	U	10	U	10	U	10	U	10	U										
1,1-Dichloroethene	10	10	U	10	U	10	U	10	U	10	U										
1,1-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U										
1,2-Dichloroethene (total)	10	10	U	10	U	10	U	10	U	10	U										
Chloroform	10	10	U	10	U	10	U	10	U	10	U										
1,2-Dichloroethane	10	10	U	10	U	10	U	10	U	10	U										
2-Butanone	10	10	U	10	U	10	U	10	U	10	U										
1,1,1-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U										
Carbon Tetrachloride	10	10	U	10	U	10	U	10	U	10	U										
Bromodichloromethane	10	10	U	10	U	10	U	10	U	10	U										
1,2-Dichloropropane	10	10	U	10	U	10	U	10	U	10	U										
cis-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U										
Trichloroethene	10	2	J	10	U	10	U	10	U	10	U										
Dibromochloromethane	10	10	U	10	U	10	U	10	U	10	U										
1,1,2-Trichloroethane	10	10	U	10	U	10	U	10	U	10	U										
Benzene	10	10	U	10	U	10	U	10	U	10	U										
trans-1,3-Dichloropropene	10	10	U	10	U	10	U	10	U	10	U										
Bromoform	10	10	U	10	U	10	U	10	U	10	U										
4-Methyl-2-pentanone	10	10	U	10	U	10	U	10	U	10	U										
2-Hexanone	10	10	U	10	U	10	U	10	U	10	U										
Tetrachloroethene	10	10	U	10	U	10	U	10	U	10	U										
1,1,2,2-Tetrachloroethane	10	10	U	10	U	10	U	10	U	10	U										
Toluene	10	10	U	10	U	1	J	10	U	1	J										
Chlorobenzene	10	10	U	10	U	10	U	10	U	10	U										
Ethylbenzene	10	10	U	10	U	10	U	10	U	10	U										
Styrene	10	10	U	10	U	10	U	10	U	10	U										
Xylene (total)	10	10	U	10	U	10	U	10	U	10	U										

NV = Not Validated, TB = Trip Blank

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Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZR7																				
Sample Number		B07ZR7		B07ZR9																	
Location		699-65-83		699-65-83																	
Remarks		NV		NV, TB																	
Sample Date		01/30/93		01/30/93																	
Analysis Date		02/06/93		02/06/93																	
Volatile Organic Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloromethane	10	10	U	10	U																
Bromomethane	10	10	U	10	U																
Vinyl Chloride	10	10	U	10	U																
Chloroethane	10	10	U	10	U																
Methylene Chloride	10	10	U	10	U																
Acetone	10	10	U	10	U																
Carbon Disulfide	10	10	U	10	U																
1,1-Dichloroethene	10	10	U	10	U																
1,1-Dichloroethane	10	10	U	10	U																
1,2-Dichloroethene (total)	10	10	U	10	U																
Chloroform	10	10	U	10	U																
1,2-Dichloroethane	10	10	U	10	U																
2-Butanone	10	10	U	10	U																
1,1,1-Trichloroethane	10	10	U	10	U																
Carbon Tetrachloride	10	10	U	10	U																
Bromodichloromethane	10	10	U	10	U																
1,2-Dichloropropane	10	10	U	10	U																
cis-1,3-Dichloropropene	10	10	U	10	U																
Trichloroethene	10	10	U	10	U																
Dibromochloromethane	10	10	U	10	U																
1,1,2-Trichloroethane	10	10	U	10	U																
Benzene	10	10	U	10	U																
trans-1,3-Dichloropropene	10	10	U	10	U																
Bromoform	10	10	U	10	U																
4-Methyl-2-pentanone	10	10	U	10	U																
2-Hexanone	10	10	U	10	U																
Tetrachloroethene	10	10	U	10	U																
1,1,2,2-Tetrachloroethane	10	10	U	10	U																
Toluene	10	10	U	10	U																
Chlorobenzene	10	10	U	10	U																
Ethylbenzene	10	10	U	10	U																
Styrene	10	10	U	10	U																
Xylene (total)	10	10	U	10	U																

NV = Not Validated, TB = Trip Blank

9713514.2448
WHC-SD-EN-TI-168, Rev. 1

Project: WESTINGHOUSE-HANFORD																					
Laboratory: Roy F. Weston																					
Case	SDG:	B07ZW2																			
Sample Number		B07ZW2		B07ZW4																	
Location		199-B4-8		199-B4-8																	
Remarks		SPLIT,NV		SPLIT,NV																	
Sample Date		1/17/93		1/17/93																	
Analysis Date		1/29/93		1/29/93																	
Volatile Organic Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloromethane	10	10	U	10	U																
Bromomethane	10	10	U	10	U																
Vinyl Chloride	10	10	U	10	U																
Chloroethane	10	10	U	10	U																
Methylene Chloride	10	4	J	4	J																
Acetone	10	10	U	2	J																
Carbon Disulfide	10	10	U	10	U																
1,1-Dichloroethene	10	10	U	10	U																
1,1-Dichloroethane	10	10	U	10	U																
1,2-Dichloroethene (total)	10	10	U	10	U																
Chloroform	10	10	U	10	U																
1,2-Dichloroethane	10	10	U	10	U																
2-Butanone	10	10	U	10	U																
1,1,1-Trichloroethane	10	10	U	10	U																
Carbon Tetrachloride	10	10	U	10	U																
Bromodichloromethane	10	10	U	10	U																
1,2-Dichloropropane	10	10	U	10	U																
cis-1,3-Dichloropropene	10	10	U	10	U																
Trichloroethene	10	1	J	10	U																
Dibromochloromethane	10	10	U	10	U																
1,1,2-Trichloroethane	10	10	U	10	U																
Benzene	10	10	U	10	U																
trans-1,3-Dichloropropene	10	10	U	10	U																
Bromoform	10	10	U	10	U																
4-Methyl-2-pentanone	10	10	U	10	U																
2-Hexanone	10	10	U	10	U																
Tetrachloroethene	10	10	U	10	U																
1,1,2,2-Tetrachloroethane	10	10	U	10	U																
Toluene	10	10	U	10	U																
Chlorobenzene	10	10	U	10	U																
Ethylbenzene	10	10	U	10	U																
Styrene	10	10	U	10	U																
Xylene (total)	10	10	U	10	U																

NV = Not Validated

9713514.2410

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	SEMIVOLATILES
199-B2-12	B07ZG2	W	01/19/93	V	3-6, 3-7
199-B2-13	B07ZG7	W	01/23/93	V	3-8, 3-9
199-B3-1	B07ZH2	W	01/15/93	NV	3-12, 3-13
199-B3-46	B07ZH7	W	01/21/93	V	3-14, 3-15
199-B3-47	B07ZJ2	W	01/19/93	V	3-6, 3-7
199-B4-1	B07ZJ7	W	01/21/93	V	3-14, 3-15
199-B4-4	B07ZK2	W	01/24/93	V	3-8, 3-9
199-B4-5	B07ZK7	W	01/26/93	NV	3-16, 3-17
199-B4-7	B07ZL2	W	01/26/93	NV	3-16, 3-17
199-B4-8	B07ZL7	W	01/17/93	NV	3-18, 3-19
199-B4-9	B07ZM2	W	01/24/93	V	3-8, 3-9
199-B5-1	B07ZM7	W	01/15/93	NV	3-12, 3-13
199-B5-2	B07ZN2	W	01/23/93	V	3-8, 3-9
199-B8-6	B07ZN7	W	01/23/93	NV	3-20, 3-21
199-B9-1	B07ZP2	W	01/22/93	V	3-8, 3-9
199-B9-2	B07ZP7	W	01/23/93	V	3-8, 3-9
199-B9-3	B07ZQ2	W	01/22/93	V	3-8, 3-9
699-63-90	B07ZQ7	W	01/16/93	NV	3-18, 3-19
699-65-72	B07ZR2	W	01/14/93	NV	3-12, 3-13
699-65-83	B07ZR7	W	01/30/93	NV	3-22, 3-23
699-66-64	B07ZS2	W	01/21/93	V	3-14, 3-15
699-71-77	B07ZS7	W	01/18/93	NV	3-18, 3-19
699-72-73	B07ZT2	W	01/22/93	V	3-8, 3-9
699-72-92	B07ZT7	W	01/22/93	V	3-8, 3-9
199-B4-8	B07ZV2	W	01/17/93	NV	3-18, 3-19
199-B4-4	B07ZV7	W	01/24/93	V	3-8, 3-9
199-B4-8	B07ZW2	W	01/17/93	NV	3-24, 3-25

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	SEMIVOLATILES
199-B4-4	B07ZW7	W	01/24/93	NV	3-26, 3-27
EB-1	B07ZX2	W	01/28/93	NV	3-20, 3-21
EB-2	B07ZX7	W	01/28/93	NV	3-20, 3-21
699-67-86	B07ZY4	W	01/19/93	V	3-6, 3-7

3.0 SEMIVOLATILE ORGANIC DATA VALIDATION

3.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were submitted for validation and found to be complete:

B07ZG2 B07ZG7 B07ZH7

3.2 HOLDING TIMES

Analytical holding times were assessed to ascertain whether the holding time requirements for semivolatile analyses were met by the laboratory. Westinghouse-Hanford protocols require that samples be extracted within seven days of collection and be analyzed within 40 days of extraction (WHC 1991a).

Holding time requirements for all samples were met.

3.3 INSTRUMENT CALIBRATION AND TUNING

3.3.1 GC/MS Tuning/Instrument Performance Check

Tuning is performed to ensure that mass resolution, and to some degree, sensitivity, of the GC/MS instrument has been established. When analyzing for semi volatile organic compounds, the GC/MS is tuned using DFTPP. The GC/MS must be tuned prior to the analysis of either standards or samples, and tuning must meet the criteria established by the analytical protocol. The specific criteria for acceptable GC/MS tuning using DFTPP are outlined in Westinghouse-Hanford procedures (WHC 1991) and in CLP protocols (EPA 1988a and 1988b).

As part of data validation, the original tuning data were checked for transcription and calculation errors to verify that tuning and performance criteria were met.

All tuning and performance criteria were met.

3.3.2 Initial Calibration

The GC/MS instrument is calibrated to ensure that it is capable of producing acceptable and reliable analytical data over

a range of concentrations. The initial and continuing calibrations are to be performed according to CLP protocols. An initial multipoint calibration is performed prior to sample analysis to establish the linearity range of the GC/MS instrument. Continuing calibration checks are performed to verify that instrument performance is stable and reproducible on a day-to-day basis.

Instrument response is established by the initial calibration when the RRFs for all target compounds are greater than or equal to 0.05 units. Linearity is established when the RSDs of the RRFs are less than or equal to 30 percent.

All initial calibration results were acceptable.

3.3.3 Continuing Calibration

The criteria for accepting the continuing calibration require that a standard be analyzed at least once per 12 hour period and that the RRFs of all target compounds be greater than or equal to 0.05 units. In addition, the percent difference of these RRFs must be less than or equal to 25 percent of the average RRFs calculated for the associated initial calibration.

All continuing calibration results were acceptable.

3.4 BLANKS

Method blank and field blank analyses are performed to determine the extent of laboratory or field contamination of samples. No contaminants should be present in the blanks. Analytical results for analytes present in any sample at less than 5 times the concentration of that analyte found in associated blanks should be qualified as non-detects; in the case of certain common laboratory contaminants, results less than 10 times blank concentrations should be qualified as non-detects.

Due to the presence of laboratory blank contamination, the following samples were flagged "U" for bis(2-Ethylhexyl) phthalate:

- Sample numbers B07ZG7, B07ZP2 and B07ZT7 in SDG No. B07ZG7.

All other laboratory blank results were acceptable.

3.5 ACCURACY

Accuracy was assessed by evaluating the recoveries of stable isotopically labeled surrogate compounds added to all samples and

blanks, and by the analysis of a representative sample which was spiked with a variety of organic compounds.

3.5.1 Matrix Spike Recovery

Matrix spike compounds are added to a sample which is representative of the sample delivery group. Matrix spike analyses are performed in duplicate using the 11 compounds specified by CLP protocols. All recoveries for the 11 compounds should be within the established QC limits (EPA 1988b). The matrix spike analyses estimate how much the analyses for the target compounds are interfered with, either positively or negatively, by the sample matrix. Because the matrix spike is performed using only one of the samples extracted within the SDG, these data alone cannot be used to evaluate the precision and accuracy of individual samples.

All matrix spike/matrix spike duplicate recovery results were acceptable.

3.5.2 Surrogate Recovery

Surrogate compound recoveries are calculated using analytical results from six stable, isotopically labeled surrogate compounds added to the sample prior to sample preparation and analysis. Matrix-specific surrogate compound recovery control windows have been established by the EPA CLP program. When recoveries for any two surrogate compounds are out of the control window, all positively identified target compound concentrations in samples associated with the unacceptable surrogate recoveries are qualified as estimates (J) and undetected compounds are qualified estimated below the detection limit (UJ).

Surrogate recovery results were acceptable for all samples.

3.6 PRECISION

The precision is expressed by the RPD between the recoveries of the matrix spike and the matrix spike duplicate analyses performed on a sample, and through a comparison of the results for field duplicate samples. Acceptable RPD control windows for matrix spike/matrix spike duplicate analyses have been established by the EPA CLP program.

Field precision is measured by analyzing duplicate samples taken in the field. No standards have been established for qualifying data based on RPD for duplicate field samples by CLP protocols. Westinghouse-Hanford procedures establish the following criteria for duplicate field sample analyses for

organic compounds, based on criteria established for inorganic analyses for laboratory duplicates:

1. For compounds whose concentrations are greater than 5 times CRQL, RPDs, must be ±20 percent for aqueous samples and ±35 percent for soil samples.

2. When one or more compounds are present at concentrations less than 5 times CRQL, the concentration difference must be ±CRQL for aqueous samples and ±2xCRQL for soil samples.

All matrix spike/matrix spike duplicate RPD results were acceptable for all samples.

3.7 SYSTEM PERFORMANCE

Internal standard performance was assessed to determine whether abrupt changes in instrument response and sensitivity occurred that may have affected the reliability of the analytical data. The response (area or height) of the internal standards must not vary by more than -50 percent or +100 percent from the response of the calibration standard that was used to calculate the upper and lower bounds. The upper and lower bounds define the range for acceptable internal standard response (area/height) for the sample analyses. In addition, retention times for the internal standard must not vary more than ±30 seconds from that of the associated calibration standard.

All internal standard results were acceptable.

3.8 COMPOUND IDENTIFICATION AND QUANTITATION

The identities of detected compounds were confirmed to investigate the possibility of false positives. The confirmation of compound identification during the QA review focuses on false positives because only mass spectra for positive identifications are submitted. However, target compounds that are reported as undetected are also evaluated to investigate the possibility of false negatives. Confirmation of possible false negatives is addressed by reviewing other factors relating to analytical sensitivity (e.g., detection limits, linearity, analytical recovery). Compound retention times and mass spectra must match those for the standard within set to tolerance limits (EPA 1988b).

3.8.1 Reported Results and Quantitation Limits

Compound quantitations and reported detection limits were recalculated and verified to ensure that they are accurate and

are consistent with the internal standards and relative retention times specified by the CLP scope of work.

At concentrations below the CRQL, instrument precision becomes more variable as the IDL is approached. Therefore, the concentrations of any compound detected below the CRQL are qualified as estimates.

All compound identifications and quantitations have been verified as correct.

3.8.2 Tentatively Identified Compounds

Several TICs were identified in the blanks and samples which, according to Westinghouse-Hanford protocols, were flagged "U" when the sample result was ±0.06 RRT from that of the blank and was less than 5 times the highest blank concentration.

This action is contrary to EPA policy, which indicates that TIC results shown to be due to the presence of blank contamination are flagged "R".

3.9 OVERALL ASSESSMENT AND SUMMARY

A thorough review of ongoing data acquisition and instrument performance criteria was made to assess overall GC/MS instrument performance. No changes in instrument performance were noted that would result in the degradation of data quality. No indications of unacceptable instrument performance (i.e., shifts in baseline stability, retention time shifts, extraneous peaks, sensitivity) were found during the quality assurance review.

In general, the semivolatile data presented in this report met the protocol-specified QA/QC requirements. Minor laboratory blank contamination was detected in three samples. The data are considered valid and usable within the standard error associated with the method. All other results are considered to be acceptable and usable for all purposes.

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZG2																				
Sample Number		B07ZG2		B07ZJ2		B07ZY4															
Location		199-B2-12		199-B3-47		199-B3-47															
Remarks																					
Sample Date		01/19/93		01/19/93		01/19/93															
Extraction Date		01/26/93		01/25/93		01/25/93															
Analysis Date		02/05/93		02/06/93		02/06/93															
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Phenol	10	10	U	10	U	10	U														
bis(2-Chloroethyl)ether	10	10	U	10	U	10	U														
2-Chlorophenol	10	10	U	10	U	10	U														
1,3-Dichlorobenzene	10	10	U	10	U	10	U														
1,4-Dichlorobenzene	10	10	U	10	U	10	U														
1,2-Dichlorobenzene	10	10	U	10	U	10	U														
2-Methylphenol	10	10	U	10	U	10	U														
2,2'-oxybis(1-Chloropropane)	10	10	U	10	U	10	U														
4-Methylphenol	10	10	U	10	U	10	U														
N-Nitroso-di-n-propylamine	10	10	U	10	U	10	U														
Hexachloroethane	10	10	U	10	U	10	U														
Nitrobenzene	10	10	U	10	U	10	U														
Isophorone	10	10	U	10	U	10	U														
2-Nitrophenol	10	10	U	10	U	10	U														
2,4-Dimethylphenol	10	10	U	10	U	10	U														
bis(2-Chloroethoxy)methane	10	10	U	10	U	10	U														
2,4-Dichlorophenol	10	10	U	10	U	10	U														
1,2,4-Trichlorobenzene	10	10	U	10	U	10	U														
Naphthalene	10	10	U	10	U	10	U														
4-Chloroaniline	10	10	U	10	U	10	U														
Hexachlorobutadiene	10	10	U	10	U	10	U														
4-Chloro-3-methylphenol	10	10	U	10	U	10	U														
2-Methylnaphthalene	10	10	U	10	U	10	U														
Hexachlorocyclopentadiene	10	10	U	10	U	10	U														
2,4,6-Trichlorophenol	10	10	U	10	U	10	U														
2,4,5-Trichlorophenol	50	25	U	25	U	25	U														
2-Chloronaphthalene	10	10	U	10	U	10	U														
2-Nitroaniline	50	25	U	25	U	25	U														
Dimethylphthalate	10	10	U	10	U	10	U														
Acenaphthylene	10	10	U	10	U	10	U														
3-Nitroaniline	50	25	U	25	U	25	U														
Acenaphthene	10	10	U	10	U	10	U														
2,4-Dinitrophenol	50	25	U	25	U	25	U														

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Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZG2																				
Sample Number		B07ZG2		B07ZJ2		B07ZY4															
Location		199-B2-12		199-B3-47		199-B3-47															
Remarks																					
Sample Date		01/19/93		01/19/93		01/19/93															
Extraction Date		01/26/93		01/25/93		01/25/93															
Analysis Date		02/05/93		02/06/93		02/06/93															
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
4-Nitrophenol	50	25	U	25	U	25	U														
Dibenzofuran	10	10	U	10	U	10	U														
2,4-Dinitrotoluene	10	10	U	10	U	10	U														
2,6-Dinitrotoluene	10	10	U	10	U	10	U														
Diethylphthalate	10	10	U	10	U	10	U														
4-Chlorophenyl-phenylether	10	10	U	10	U	10	U														
Fluorene	10	10	U	10	U	10	U														
4-Nitroaniline	50	25	U	25	U	25	U														
4,6-Dinitro-2-methylphenol	50	25	U	25	U	25	U														
N-Nitrosodiphenylamine	10	10	U	10	U	10	U														
4-Bromophenyl-phenylether	10	10	U	10	U	10	U														
Hexachlorobenzene	10	10	U	10	U	10	U														
Pentachlorophenol	50	25	U	25	U	25	U														
Phenanthrene	10	10	U	10	U	10	U														
Anthracene	10	10	U	10	U	10	U														
Carbazole	10	10	U	10	U	10	U														
Di-n-butylphthalate	10	10	U	10	U	10	U														
Fluoranthene	10	10	U	10	U	10	U														
Pyrene	10	10	U	10	U	10	U														
Butylbenzylphthalate	10	10	U	10	U	10	U														
3,3'-Dichlorobenzidine	10	10	U	10	U	10	U														
Benzo(a)anthracene	10	10	U	10	U	10	U														
bis(2-Ethylhexyl)phthalate	10	10	U	10	U	10	U														
Chrysene	10	10	U	10	U	10	U														
Di-n-octylphthalate	10	10	U	10	U	10	U														
Benzo(b)fluoranthene	10	10	U	10	U	10	U														
Benzo(k)fluoranthene	10	10	U	10	U	10	U														
Benzo(a)pyrene	10	10	U	10	U	10	U														
Indeno(1,2,3-cd)pyrene	10	10	U	10	U	10	U														
Dibenzo(a,h)anthracene	10	10	U	10	U	10	U														
Benzo(g,h,i)perylene	10	10	U	10	U	10	U														

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Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZG7																				
Sample Number		B07ZG7		B07ZK2		B07ZM2		B07ZN2		B07ZP2		B07ZP7		B07ZQ2		B07ZT2		B07ZT7		B07ZV7	
Location		199-B2-13		199-B4-4		199-B4-9		199-B5-2		199-B9-1		199-B9-2		199-B9-3		699-72-73		699-72-92		199-B4-4	
Remarks																				Duplicate	
Sample Date		01/23/93		01/24/93		01/24/93		01/23/93		01/22/93		01/23/93		01/22/93		01/22/93		01/22/93		01/24/93	
Extraction Date		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93	
Analysis Date		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93	
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Phenol	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorophenol	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,3-Dichlorobenzene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichlorobenzene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Methylphenol	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Methylphenol	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
N-Nitroso-di-n-propylamine	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Nitrobenzene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Isophorone	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Naphthalene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachlorobutadiene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Methylnaphthalene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4,5-Trichlorophenol	50	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U
2-Chloronaphthalene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	50	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U
Dimethylphthalate	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acenaphthylene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
3-Nitroaniline	50	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U
Acenaphthene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	50	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZG7																				
Sample Number		B07ZG7		B07ZK2		B07ZM2		B07ZN2		B07ZP2		B07ZP7		B07ZQ2		B07ZT2		B07ZT7		B07ZV7	
Location		199-B2-13		199-B4-4		199-B4-9		199-B5-2		199-B9-1		199-B9-2		199-B9-3		699-72-73		699-72-92		199-B4-4	
Remarks																				Duplicate	
Sample Date		01/23/93		01/24/93		01/24/93		01/23/93		01/22/93		01/23/93		01/22/93		01/22/93		01/22/93		01/24/93	
Extraction Date		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93	
Analysis Date		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93		02/05/93	
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
4-Nitrophenol	50	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U
Dibenzofuran	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrotoluene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Diethylphthalate	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl-phenylether	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Fluorene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	50	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U
4,6-Dinitro-2-methylphenol	50	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U
N-Nitrosodiphenylamine	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Bromophenyl-phenylether	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Pentachlorophenol	50	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U
Phenanthrene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Anthracene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbazole	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Di-n-butylphthalate	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Fluoranthene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Pyrene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Butylbenzylphthalate	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	10	35	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chrysene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Di-n-octylphthalate	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U

9713514.2430

BLANK AND SAMPLE DATA SUMMARY

SDG: B07ZG7	REVIEWER: PS			DATE: 5/21/93				PAGE 1 OF 1	
COMMENTS:									
SAMPLE ID	COMPOUND	RESULT	Q	RT	UNITS	5X RESULT	10X RESULT	SAMPLES AFFECTED	QUALIFIER
SBLK0128C	bis(2-Ethylhexyl)phthalate	17		1.007	ug/L	85		B07ZG7, B07ZP2, B07ZT7	U

DATA QUALIFICATION SUMMARY

SDG: B07ZG7	REVIEWER: PS	DATE: 5/21/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
bis(2-Ethylhexyl)phthalate	U	B07ZG7, B07ZP2, B07ZT7	Lab blank contamination

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZH2																				
Sample Number		B07ZH2		B07ZM7		B07ZR2															
Location		199-B3-1		199-B5-1		699-65-72															
Remarks		NV		NV		NV															
Sample Date		01/15/93		01/15/93		01/14/93															
Extraction Date		01/20/93		01/20/93		01/20/93															
Analysis Date		01/29/93		01/29/93		01/28/93															
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Phenol	10	10	U	10	U	10	U														
bis(2-Chloroethyl)ether	10	10	U	10	U	10	U														
2-Chlorophenol	10	10	U	10	U	10	U														
1,3-Dichlorobenzene	10	10	U	10	U	10	U														
1,4-Dichlorobenzene	10	10	U	10	U	10	U														
1,2-Dichlorobenzene	10	10	U	10	U	10	U														
2-Methylphenol	10	10	U	10	U	10	U														
2,2'-oxybis(1-Chloropropane)	10	10	U	10	U	10	U														
4-Methylphenol	10	10	U	10	U	10	U														
N-Nitroso-di-n-propylamine	10	10	U	10	U	10	U														
Hexachloroethane	10	10	U	10	U	10	U														
Nitrobenzene	10	10	U	10	U	10	U														
Isophorone	10	10	U	10	U	10	U														
2-Nitrophenol	10	10	U	10	U	10	U														
2,4-Dimethylphenol	10	10	U	10	U	10	U														
bis(2-Chloroethoxy)methane	10	10	U	10	U	10	U														
2,4-Dichlorophenol	10	10	U	10	U	10	U														
1,2,4-Trichlorobenzene	10	10	U	10	U	10	U														
Naphthalene	10	10	U	10	U	10	U														
4-Chloroaniline	10	10	U	10	U	10	U														
Hexachlorobutadiene	10	10	U	10	U	10	U														
4-Chloro-3-methylphenol	10	10	U	10	U	10	U														
2-Methylnaphthalene	10	10	U	10	U	10	U														
Hexachlorocyclopentadiene	10	10	U	10	U	10	U														
2,4,6-Trichlorophenol	10	10	U	10	U	10	U														
2,4,5-Trichlorophenol	50	25	U	25	U	25	U														
2-Chloronaphthalene	10	10	U	10	U	10	U														
2-Nitroaniline	50	25	U	25	U	25	U														
Dimethylphthalate	10	10	U	10	U	10	U														
Acenaphthylene	10	10	U	10	U	10	U														

NV = Not Validated

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Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZH2																				
Sample Number		B07ZH2		B07ZM7		B07ZR2															
Location		199-B3-1		199-B5-1		699-65-72															
Remarks																					
Sample Date		01/15/93		01/15/93		01/14/93															
Extraction Date		01/20/93		01/20/93		01/20/93															
Analysis Date		01/29/93		01/29/93		01/28/93															
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
3-Nitroaniline	50	25	U	25	U	25	U														
Acenaphthene	10	10	U	10	U	10	U														
2,4-Dinitrophenol	50	25	U	25	U	25	U														
4-Nitrophenol	50	25	U	25	U	25	U														
Dibenzofuran	10	10	U	10	U	10	U														
2,4-Dinitrotoluene	10	10	U	10	U	10	U														
2,6-Dinitrotoluene	10	10	U	10	U	10	U														
Diethylphthalate	10	10	U	10	U	10	U														
4-Chlorophenyl-phenylether	10	10	U	10	U	10	U														
Fluorene	10	10	U	10	U	10	U														
4-Nitroaniline	50	25	U	25	U	25	U														
4,6-Dinitro-2-methylphenol	50	25	U	25	U	25	U														
N-Nitrosodiphenylamine	10	10	U	10	U	10	U														
4-Bromophenyl-phenylether	10	10	U	10	U	10	U														
Hexachlorobenzene	10	10	U	10	U	10	U														
Pentachlorophenol	50	25	U	25	U	25	U														
Phenanthrene	10	10	U	10	U	10	U														
Anthracene	10	10	U	10	U	10	U														
Carbazole	10	10	U	10	U	10	U														
Di-n-butylphthalate	10	10	U	10	U	10	U														
Fluoranthene	10	10	U	10	U	10	U														
Pyrene	10	10	U	10	U	10	U														
Butylbenzylphthalate	10	10	U	10	U	10	U														
3,3'-Dichlorobenzidine	10	10	U	10	U	10	U														
Benzo(a)anthracene	10	10	U	10	U	10	U														
bis(2-Ethylhexyl)phthalate	10	35		10	U	10	U														
Chrysene	10	10	U	10	U	10	U														
Di-n-octylphthalate	10	10	U	10	U	10	U														
Benzo(b)fluoranthene	10	10	U	10	U	10	U														
Benzo(k)fluoranthene	10	10	U	10	U	10	U														
Benzo(a)pyrene	10	10	U	10	U	10	U														
Indeno(1,2,3-cd)pyrene	10	10	U	10	U	10	U														
Dibenzo(a,h)anthracene	10	10	U	10	U	10	U														
Benzo(g,h,i)perylene	10	10	U	10	U	10	U														

NV = Not Validated

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Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZH7																				
Sample Number		B07ZH7		B07ZJ7		B07ZS2															
Location		199-B3-46		199-B4-1		699-66-64															
Remarks																					
Sample Date		01/21/93		01/21/93		01/21/93															
Extraction Date		01/26/93		01/26/93		01/26/93															
Analysis Date		02/04/93		02/04/93		02/04/93															
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Phenol	10	10	U	10	U	10	U														
bis(2-Chloroethyl)ether	10	10	U	10	U	10	U														
2-Chlorophenol	10	10	U	10	U	10	U														
1,3-Dichlorobenzene	10	10	U	10	U	10	U														
1,4-Dichlorobenzene	10	10	U	10	U	10	U														
1,2-Dichlorobenzene	10	10	U	10	U	10	U														
2-Methylphenol	10	10	U	10	U	10	U														
2,2'-oxybis(1-Chloropropane)	10	10	U	10	U	10	U														
4-Methylphenol	10	10	U	10	U	10	U														
N-Nitroso-di-n-propylamine	10	10	U	10	U	10	U														
Hexachloroethane	10	10	U	10	U	10	U														
Nitrobenzene	10	10	U	10	U	10	U														
Isophorone	10	10	U	10	U	10	U														
2-Nitrophenol	10	10	U	10	U	10	U														
2,4-Dimethylphenol	10	10	U	10	U	10	U														
bis(2-Chloroethoxy)methane	10	10	U	10	U	10	U														
2,4-Dichlorophenol	10	10	U	10	U	10	U														
1,2,4-Trichlorobenzene	10	10	U	10	U	10	U														
Naphthalene	10	10	U	10	U	10	U														
4-Chloroaniline	10	10	U	10	U	10	U														
Hexachlorobutadiene	10	10	U	10	U	10	U														
4-Chloro-3-methylphenol	10	10	U	10	U	10	U														
2-Methylnaphthalene	10	10	U	10	U	10	U														
Hexachlorocyclopentadiene	10	10	U	10	U	10	U														
2,4,6-Trichlorophenol	10	10	U	10	U	10	U														
2,4,5-Trichlorophenol	50	25	U	25	U	25	U														
2-Chloronaphthalene	10	10	U	10	U	10	U														
2-Nitroaniline	50	25	U	25	U	25	U														
Dimethylphthalate	10	10	U	10	U	10	U														
Acenaphthylene	10	10	U	10	U	10	U														
3-Nitroaniline	50	25	U	25	U	25	U														
Acenaphthene	10	10	U	10	U	10	U														
2,4-Dinitrophenol	50	25	U	25	U	25	U														

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Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZH7																				
Sample Number		B07ZH7		B07ZJ7		B07ZS2															
Location		199-B3-46		199-B4-1		699-66-64															
Remarks																					
Sample Date		01/21/93		01/21/93		01/21/93															
Extraction Date		01/26/93		01/26/93		01/26/93															
Analysis Date		02/04/93		02/04/93		02/04/93															
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
4-Nitrophenol	50	25	U	25	U	25	U														
Dibenzofuran	10	10	U	10	U	10	U														
2,4-Dinitrotoluene	10	10	U	10	U	10	U														
2,6-Dinitrotoluene	10	10	U	10	U	10	U														
Diethylphthalate	10	10	U	10	U	10	U														
4-Chlorophenyl-phenylether	10	10	U	10	U	10	U														
Fluorene	10	10	U	10	U	10	U														
4-Nitroaniline	50	25	U	25	U	25	U														
4,6-Dinitro-2-methylphenol	50	25	U	25	U	25	U														
N-Nitrosodiphenylamine	10	10	U	10	U	10	U														
4-Bromophenyl-phenylether	10	10	U	10	U	10	U														
Hexachlorobenzene	10	10	U	10	U	10	U														
Pentachlorophenol	50	25	U	25	U	25	U														
Phenanthrene	10	10	U	10	U	10	U														
Anthracene	10	10	U	10	U	10	U														
Carbazole	10	10	U	10	U	10	U														
Di-n-butylphthalate	10	10	U	10	U	10	U														
Fluoranthene	10	10	U	10	U	10	U														
Pyrene	10	10	U	10	U	10	U														
Butylbenzylphthalate	10	10	U	10	U	10	U														
3,3'-Dichlorobenzidine	10	10	U	10	U	10	U														
Benzo(a)anthracene	10	10	U	10	U	10	U														
bis(2-Ethylhexyl)phthalate	10	10	U	10	U	10	U														
Chrysene	10	10	U	10	U	10	U														
Di-n-octylphthalate	10	10	U	10	U	10	U														
Benzo(b)fluoranthene	10	10	U	10	U	10	U														
Benzo(k)fluoranthene	10	10	U	10	U	10	U														
Benzo(a)pyrene	10	10	U	10	U	10	U														
Indeno(1,2,3-cd)pyrene	10	10	U	10	U	10	U														
Dibenzo(a,h)anthracene	10	10	U	10	U	10	U														
Benzo(g,h,i)perylene	10	10	U	10	U	10	U														

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Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZK7																				
Sample Number		B07ZK7		B07ZL2																	
Location		199-B4-5		199-B4-7																	
Remarks		NV		NV																	
Sample Date		01/26/93		01/26/93																	
Extraction Date		02/01/93		02/01/93																	
Analysis Date		02/05/93		02/04/93																	
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Phenol	10	10	U	10	U																
bis(2-Chloroethyl)ether	10	10	U	10	U																
2-Chlorophenol	10	10	U	10	U																
1,3-Dichlorobenzene	10	10	U	10	U																
1,4-Dichlorobenzene	10	10	U	10	U																
1,2-Dichlorobenzene	10	10	U	10	U																
2-Methylphenol	10	10	U	10	U																
2,2'-oxybis(1-Chloropropane)	10	10	U	10	U																
4-Methylphenol	10	10	U	10	U																
N-Nitroso-di-n-propylamine	10	10	U	10	U																
Hexachloroethane	10	10	U	10	U																
Nitrobenzene	10	10	U	10	U																
Isophorone	10	10	U	10	U																
2-Nitrophenol	10	10	U	10	U																
2,4-Dimethylphenol	10	10	U	10	U																
bis(2-Chloroethoxy)methane	10	10	U	10	U																
2,4-Dichlorophenol	10	10	U	10	U																
1,2,4-Trichlorobenzene	10	10	U	10	U																
Naphthalene	10	10	U	10	U																
4-Chloroaniline	10	10	U	10	U																
Hexachlorobutadiene	10	10	U	10	U																
4-Chloro-3-methylphenol	10	10	U	10	U																
2-Methylnaphthalene	10	10	U	10	U																
Hexachlorocyclopentadiene	10	10	U	10	U																
2,4,6-Trichlorophenol	10	10	U	10	U																
2,4,5-Trichlorophenol	50	25	U	25	U																
2-Chloronaphthalene	10	10	U	10	U																
2-Nitroaniline	50	25	U	25	U																
Dimethylphthalate	10	10	U	10	U																
Acenaphthylene	10	10	U	10	U																

NV = Not Validated

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Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZK7																				
Sample Number		B07ZK7		B07ZL2																	
Location		199-B4-5		199-B4-7																	
Remarks		NV		NV																	
Sample Date		01/26/93		01/26/93																	
Extraction Date		02/01/93		02/01/93																	
Analysis Date		02/05/93		02/04/93																	
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
3-Nitroaniline	50	25	U	25	U																
Acenaphthene	10	10	U	10	U																
2,4-Dinitrophenol	50	25	U	25	U																
4-Nitrophenol	50	25	U	25	U																
Dibenzofuran	10	10	U	10	U																
2,4-Dinitrotoluene	10	10	U	10	U																
2,6-Dinitrotoluene	10	10	U	10	U																
Diethylphthalate	10	10	U	10	U																
4-Chlorophenyl-phenylether	10	10	U	10	U																
Fluorene	10	10	U	10	U																
4-Nitroaniline	50	25	U	25	U																
4,6-Dinitro-2-methylphenol	50	25	U	25	U																
N-Nitrosodiphenylamine	10	10	U	10	U																
4-Bromophenyl-phenylether	10	10	U	10	U																
Hexachlorobenzene	10	10	U	10	U																
Pentachlorophenol	50	25	U	25	U																
Phenanthrene	10	10	U	10	U																
Anthracene	10	10	U	10	U																
Carbazole	10	10	U	10	U																
Di-n-butylphthalate	10	10	U	10	U																
Fluoranthene	10	10	U	10	U																
Pyrene	10	10	U	10	U																
Butylbenzylphthalate	10	10	U	10	U																
3,3'-Dichlorobenzidine	10	10	U	10	U																
Benzo(a)anthracene	10	10	U	10	U																
bis(2-Ethylhexyl)phthalate	10	10	U	10	U																
Chrysene	10	10	U	10	U																
Di-n-octylphthalate	10	10	U	10	U																
Benzo(b)fluoranthene	10	10	U	10	U																
Benzo(k)fluoranthene	10	10	U	10	U																
Benzo(a)pyrene	10	10	U	10	U																
Indeno(1,2,3-cd)pyrene	10	10	U	10	U																
Dibenzo(a,h)anthracene	10	10	U	10	U																
Benzo(g,h,i)perylene	10	10	U	10	U																

NV = Not Validated

9713514.2438 WHC-SD-EN-TI-168, Rev. 1

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZL7																				
Sample Number		B07ZL7		B07ZQ7		B07ZS7		B07ZV2													
Location		199-B4-8		699-63-90		699-71-77		199-B4-8													
Remarks		NV		NV		NV		NV, DUP													
Sample Date		01/17/93		01/16/93		01/18/93		01/17/93													
Extraction Date		01/22/93		01/22/93		01/22/93		01/22/93													
Analysis Date		01/29/93		01/30/93		01/30/93		02/01/93													
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Phenol	10	10	U	10	U	10	U	10	U												
bis(2-Chloroethyl)ether	10	10	U	10	U	10	U	10	U												
2-Chlorophenol	10	10	U	10	U	10	U	10	U												
1,3-Dichlorobenzene	10	10	U	10	U	10	U	10	U												
1,4-Dichlorobenzene	10	10	U	10	U	10	U	10	U												
1,2-Dichlorobenzene	10	10	U	10	U	10	U	10	U												
2-Methylphenol	10	10	U	10	U	10	U	10	U												
2,2'-oxybis(1-Chloropropane)	10	10	U	10	U	10	U	10	U												
4-Methylphenol	10	10	U	10	U	10	U	10	U												
N-Nitroso-di-n-propylamine	10	10	U	10	U	10	U	10	U												
Hexachloroethane	10	10	U	10	U	10	U	10	U												
Nitrobenzene	10	10	U	10	U	10	U	10	U												
Isophorone	10	10	U	10	U	10	U	10	U												
2-Nitrophenol	10	10	U	10	U	10	U	10	U												
2,4-Dimethylphenol	10	10	U	10	U	10	U	10	U												
bis(2-Chloroethoxy)methane	10	10	U	10	U	10	U	10	U												
2,4-Dichlorophenol	10	10	U	10	U	10	U	10	U												
1,2,4-Trichlorobenzene	10	10	U	10	U	10	U	10	U												
Naphthalene	10	10	U	10	U	10	U	10	U												
4-Chloroaniline	10	10	U	10	U	10	U	10	U												
Hexachlorobutadiene	10	10	U	10	U	10	U	10	U												
4-Chloro-3-methylphenol	10	10	U	10	U	10	U	10	U												
2-Methylnaphthalene	10	10	U	10	U	10	U	10	U												
Hexachlorocyclopentadiene	10	10	U	10	U	10	U	10	U												
2,4,6-Trichlorophenol	10	10	U	10	U	10	U	10	U												
2,4,5-Trichlorophenol	50	25	U	25	U	25	U	25	U												
2-Chloronaphthalene	10	10	U	10	U	10	U	10	U												
2-Nitroaniline	50	25	U	25	U	25	U	25	U												
Dimethylphthalate	10	10	U	10	U	10	U	10	U												
Acenaphthylene	10	10	U	10	U	10	U	10	U												
3-Nitroaniline	50	25	U	25	U	25	U	25	U												
Acenaphthene	10	10	U	10	U	10	U	10	U												
2,4-Dinitrophenol	50	25	U	25	U	25	U	25	U												

NV = Not Validated, DUP = Duplicate

9713514.2439
WHC-SD-EN-TI-168, Rev. 1

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZL7																				
Sample Number		B07ZL7		B07ZQ7		B07ZS7		B07ZV2													
Location		199-B4-8		699-63-90		699-71-77		199-B4-8													
Remarks		NV		NV		NV		NV, DUP													
Sample Date		01/17/93		01/16/93		01/18/93		01/17/93													
Extraction Date		01/22/93		01/22/93		01/22/93		01/22/93													
Analysis Date		01/29/93		01/30/93		01/30/93		02/01/93													
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
4-Nitrophenol	50	25	U	25	U	25	U	25	U												
Dibenzofuran	10	10	U	10	U	10	U	10	U												
2,4-Dinitrotoluene	10	10	U	10	U	10	U	10	U												
2,6-Dinitrotoluene	10	10	U	10	U	10	U	10	U												
Diethylphthalate	10	10	U	10	U	10	U	10	U												
4-Chlorophenyl-phenylether	10	10	U	10	U	10	U	10	U												
Fluorene	10	10	U	10	U	10	U	10	U												
4-Nitroaniline	50	25	U	25	U	25	U	25	U												
4,6-Dinitro-2-methylphenol	50	25	U	25	U	25	U	25	U												
N-Nitrosodiphenylamine	10	10	U	10	U	10	U	10	U												
4-Bromophenyl-phenylether	10	10	U	10	U	10	U	10	U												
Hexachlorobenzene	10	10	U	10	U	10	U	10	U												
Pentachlorophenol	50	25	U	25	U	25	U	25	U												
Phenanthrene	10	10	U	10	U	10	U	10	U												
Anthracene	10	10	U	10	U	10	U	10	U												
Carbazole	10	10	U	10	U	10	U	10	U												
Di-n-butylphthalate	10	10	U	10	U	10	U	10	U												
Fluoranthene	10	10	U	10	U	10	U	10	U												
Pyrene	10	10	U	10	U	10	U	10	U												
Butylbenzylphthalate	10	10	U	10	U	10	U	10	U												
3,3'-Dichlorobenzidine	10	10	U	10	U	10	U	10	U												
Benzo(a)anthracene	10	10	U	10	U	10	U	10	U												
bis(2-Ethylhexyl)phthalate	10	10	U	10	U	3	J	10	U												
Chrysene	10	10	U	10	U	10	U	10	U												
Di-n-octylphthalate	10	10	U	10	U	10	U	10	U												
Benzo(b)fluoranthene	10	10	U	10	U	10	U	10	U												
Benzo(k)fluoranthene	10	10	U	10	U	10	U	10	U												
Benzo(a)pyrene	10	10	U	10	U	10	U	10	U												
Indeno(1,2,3-cd)pyrene	10	10	U	10	U	10	U	10	U												
Dibenzo(a,h)anthracene	10	10	U	10	U	10	U	10	U												
Benzo(g,h,i)perylene	10	10	U	10	U	10	U	10	U												

NV = Not Validated, DUP = Duplicate

9713514.2410 WHC-SD-EN-TI-168, Rev. 1

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZN7																				
Sample Number		B07ZN7		B07ZX2		B07ZX7															
Location		199-B8-6		EB-1		EB-2															
Remarks		NV		NV		NV															
Sample Date		01/23/93		01/28/93		01/28/93															
Extraction Date		02/04/93		02/03/93		02/03/93															
Analysis Date		02/09/93		02/08/93		02/08/93															
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Phenol	10	10	U	10	U	10	U														
bis(2-Chloroethyl)ether	10	10	U	10	U	10	U														
2-Chlorophenol	10	10	U	10	U	10	U														
1,3-Dichlorobenzene	10	10	U	10	U	10	U														
1,4-Dichlorobenzene	10	10	U	10	U	10	U														
1,2-Dichlorobenzene	10	10	U	10	U	10	U														
2-Methylphenol	10	10	U	10	U	10	U														
2,2'-oxybis(1-Chloropropane)	10	10	U	10	U	10	U														
4-Methylphenol	10	10	U	10	U	10	U														
N-Nitroso-di-n-propylamine	10	10	U	10	U	10	U														
Hexachloroethane	10	10	U	10	U	10	U														
Nitrobenzene	10	10	U	10	U	10	U														
Isophorone	10	10	U	10	U	10	U														
2-Nitrophenol	10	10	U	10	U	10	U														
2,4-Dimethylphenol	10	10	U	10	U	10	U														
bis(2-Chloroethoxy)methane	10	10	U	10	U	10	U														
2,4-Dichlorophenol	10	10	U	10	U	10	U														
1,2,4-Trichlorobenzene	10	10	U	10	U	10	U														
Naphthalene	10	10	U	10	U	10	U														
4-Chloroaniline	10	10	U	10	U	10	U														
Hexachlorobutadiene	10	10	U	10	U	10	U														
4-Chloro-3-methylphenol	10	10	U	10	U	10	U														
2-Methylnaphthalene	10	10	U	10	U	10	U														
Hexachlorocyclopentadiene	10	10	U	10	U	10	U														
2,4,6-Trichlorophenol	10	10	U	10	U	10	U														
2,4,5-Trichlorophenol	50	25	U	25	U	25	U														
2-Chloronaphthalene	10	10	U	10	U	10	U														
2-Nitroaniline	50	25	U	25	U	25	U														
Dimethylphthalate	10	10	U	10	U	10	U														
Acenaphthylene	10	10	U	10	U	10	U														
3-Nitroaniline	50	25	U	25	U	25	U														
Acenaphthene	10	10	U	10	U	10	U														
2,4-Dinitrophenol	50	25	U	25	U	25	U														

NV = Not Validated

9713514.2444 WHC-SD-EN-TI-168, Rev. 1

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZN7																				
Sample Number		B07ZN7		B07ZX2		B07ZX7															
Location		199-B8-6		EB-1		EB-2															
Remarks		NV		NV		NV															
Sample Date		01/23/93		01/28/93		01/28/93															
Extraction Date		02/04/93		02/03/93		02/03/93															
Analysis Date		02/09/93		02/08/93		02/08/93															
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
4-Nitrophenol	50	25	U	25	U	25	U														
Dibenzofuran	10	10	U	10	U	10	U														
2,4-Dinitrotoluene	10	10	U	10	U	10	U														
2,6-Dinitrotoluene	10	10	U	10	U	10	U														
Diethylphthalate	10	10	U	10	U	10	U														
4-Chlorophenyl-phenylether	10	10	U	10	U	10	U														
Fluorene	10	10	U	10	U	10	U														
4-Nitroaniline	50	25	U	25	U	25	U														
4,6-Dinitro-2-methylphenol	50	25	U	25	U	25	U														
N-Nitrosodiphenylamine	10	10	U	10	U	10	U														
4-Bromophenyl-phenylether	10	10	U	10	U	10	U														
Hexachlorobenzene	10	10	U	10	U	10	U														
Pentachlorophenol	50	25	U	25	U	25	U														
Phenanthrene	10	10	U	10	U	10	U														
Anthracene	10	10	U	10	U	10	U														
Carbazole	10	10	U	10	U	10	U														
Di-n-butylphthalate	10	10	U	10	U	10	U														
Fluoranthene	10	10	U	10	U	10	U														
Pyrene	10	10	U	10	U	10	U														
Butylbenzylphthalate	10	10	U	10	U	10	U														
3,3'-Dichlorobenzidine	10	10	U	10	U	10	U														
Benzo(a)anthracene	10	10	U	10	U	10	U														
bis(2-Ethylhexyl)phthalate	10	10	U	10	U	10	U														
Chrysene	10	10	U	10	U	10	U														
Di-n-octylphthalate	10	10	U	10	U	10	U														
Benzo(b)fluoranthene	10	10	U	10	U	10	U														
Benzo(k)fluoranthene	10	10	U	10	U	10	U														
Benzo(a)pyrene	10	10	U	10	U	10	U														
Indeno(1,2,3-cd)pyrene	10	10	U	10	U	10	U														
Dibenzo(a,h)anthracene	10	10	U	10	U	10	U														
Benzo(g,h,i)perylene	10	10	U	10	U	10	U														

NV = Not Validated

9713514.2412

WHC-SD-EN-TI-168, Rev. 1

SEMIVOLATILE ORGANIC ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZR7																				
Sample Number		B07ZR7																			
Location		699-65-83																			
Remarks		NV																			
Sample Date		01/30/93																			
Extraction Date		02/05/93																			
Analysis Date		02/09/93																			
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Phenol	10	10	U																		
bis(2-Chloroethyl)ether	10	10	U																		
2-Chlorophenol	10	10	U																		
1,3-Dichlorobenzene	10	10	U																		
1,4-Dichlorobenzene	10	10	U																		
1,2-Dichlorobenzene	10	10	U																		
2-Methylphenol	10	10	U																		
2,2'-oxybis(1-Chloropropane)	10	10	U																		
4-Methylphenol	10	10	U																		
N-Nitroso-di-n-propylamine	10	10	U																		
Hexachloroethane	10	10	U																		
Nitrobenzene	10	10	U																		
Isophorone	10	10	U																		
2-Nitrophenol	10	10	U																		
2,4-Dimethylphenol	10	10	U																		
bis(2-Chloroethoxy)methane	10	10	U																		
2,4-Dichlorophenol	10	10	U																		
1,2,4-Trichlorobenzene	10	10	U																		
Naphthalene	10	10	U																		
4-Chloroaniline	10	10	U																		
Hexachlorobutadiene	10	10	U																		
4-Chloro-3-methylphenol	10	10	U																		
2-Methylnaphthalene	10	10	U																		
Hexachlorocyclopentadiene	10	10	U																		
2,4,6-Trichlorophenol	10	10	U																		
2,4,5-Trichlorophenol	50	25	U																		
2-Chloronaphthalene	10	10	U																		
2-Nitroaniline	50	25	U																		
Dimethylphthalate	10	10	U																		
Acenaphthylene	10	10	U																		
3-Nitroaniline	50	25	U																		
Acenaphthene	10	10	U																		
2,4-Dinitrophenol	50	25	U																		

NV = Not Validated

9713514.2443
WHC-SD-EN-TI-168, Rev. 1

Project: WESTINGHOUSE-HANFORD																							
Laboratory: TMA																							
Case	SDG:	B07ZR7																					
Sample Number		B07ZR7																					
Location		699-65-83																					
Remarks		NV																					
Sample Date		01/30/93																					
Extraction Date		02/05/93																					
Analysis Date		02/09/93																					
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
4-Nitrophenol	50	25	U																				
Dibenzofuran	10	10	U																				
2,4-Dinitrotoluene	10	10	U																				
2,6-Dinitrotoluene	10	10	U																				
Diethylphthalate	10	10	U																				
4-Chlorophenyl-phenylether	10	10	U																				
Fluorene	10	10	U																				
4-Nitroaniline	50	25	U																				
4,6-Dinitro-2-methylphenol	50	25	U																				
N-Nitrosodiphenylamine	10	10	U																				
4-Bromophenyl-phenylether	10	10	U																				
Hexachlorobenzene	10	10	U																				
Pentachlorophenol	50	25	U																				
Phenanthrene	10	10	U																				
Anthracene	10	10	U																				
Carbazole	10	10	U																				
Di-n-butylphthalate	10	10	U																				
Fluoranthene	10	10	U																				
Pyrene	10	10	U																				
Butylbenzylphthalate	10	10	U																				
3,3'-Dichlorobenzidine	10	10	U																				
Benzo(a)anthracene	10	10	U																				
bis(2-Ethylhexyl)phthalate	10	10	U																				
Chrysene	10	10	U																				
Di-n-octylphthalate	10	10	U																				
Benzo(b)fluoranthene	10	10	U																				
Benzo(k)fluoranthene	10	10	U																				
Benzo(a)pyrene	10	10	U																				
Indeno(1,2,3-cd)pyrene	10	10	U																				
Dibenzo(a,h)anthracene	10	10	U																				
Benzo(g,h,i)perylene	10	10	U																				

NV = Not Validated

9713614.2444 WHC-SD-EN-TI-168, Rev. 1

Project: WESTINGHOUSE-HANFORD																					
Laboratory: Roy F. Weston																					
Case	SDG:	B07ZW2																			
Sample Number		B07ZW2																			
Location		199-B4-8																			
Remarks		SPLIT,NV																			
Sample Date		1/17/93																			
Extraction Date		1/25/93																			
Analysis Date		1/29/93																			
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Phenol	10	10	U																		
bis(2-Chloroethyl)ether	10	10	U																		
2-Chlorophenol	10	10	U																		
1,3-Dichlorobenzene	10	10	U																		
1,4-Dichlorobenzene	10	10	U																		
1,2-Dichlorobenzene	10	10	U																		
2-Methylphenol	10	10	U																		
2,2'-oxybis(1-Chloropropane)	10	10	U																		
4-Methylphenol	10	10	U																		
N-Nitroso-di-n-propylamine	10	10	U																		
Hexachloroethane	10	10	U																		
Nitrobenzene	10	10	U																		
Isophorone	10	10	U																		
2-Nitrophenol	10	10	U																		
2,4-Dimethylphenol	10	10	U																		
bis(2-Chloroethoxy)methane	10	10	U																		
2,4-Dichlorophenol	10	10	U																		
1,2,4-Trichlorobenzene	10	10	U																		
Naphthalene	10	10	U																		
4-Chloroaniline	10	10	U																		
Hexachlorobutadiene	10	10	U																		
4-Chloro-3-methylphenol	10	10	U																		
2-Methylnaphthalene	10	10	U																		
Hexachlorocyclopentadiene	10	10	U																		
2,4,6-Trichlorophenol	10	10	U																		
2,4,5-Trichlorophenol	50	25	U																		
2-Chloronaphthalene	10	10	U																		
2-Nitroaniline	50	25	U																		
Dimethylphthalate	10	10	U																		
Acenaphthylene	10	10	U																		
3-Nitroaniline	50	25	U																		
Acenaphthene	10	10	U																		
2,4-Dinitrophenol	50	25	U																		

NV = Not Validated

9713514.2045

WHC-SD-EN-TI-168, Rev. 1

Project: WESTINGHOUSE-HANFORD																					
Laboratory: Roy F. Weston																					
Case	SDG:	B07ZW2																			
Sample Number		B07ZW2																			
Location		199-B4-8																			
Remarks		SPLIT,NV																			
Sample Date		1/17/93																			
Extraction Date		1/25/93																			
Analysis Date		1/29/93																			
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
4-Nitrophenol	50	25	U																		
Dibenzofuran	10	10	U																		
2,4-Dinitrotoluene	10	10	U																		
2,6-Dinitrotoluene	10	10	U																		
Diethylphthalate	10	10	U																		
4-Chlorophenyl-phenylether	10	10	U																		
Fluorene	10	10	U																		
4-Nitroaniline	50	25	U																		
4,6-Dinitro-2-methylphenol	50	25	U																		
N-Nitrosodiphenylamine	10	10	U																		
4-Bromophenyl-phenylether	10	10	U																		
Hexachlorobenzene	10	10	U																		
Pentachlorophenol	50	25	U																		
Phenanthrene	10	10	U																		
Anthracene	10	10	U																		
Carbazole	10	10	U																		
Di-n-butylphthalate	10	2	J																		
Fluoranthene	10	10	U																		
Pyrene	10	10	U																		
Butylbenzylphthalate	10	10	U																		
3,3'-Dichlorobenzidine	10	10	U																		
Benzo(a)anthracene	10	10	U																		
bis(2-Ethylhexyl)phthalate	10	0.6	J																		
Chrysene	10	10	U																		
Di-n-octylphthalate	10	10	U																		
Benzo(b)fluoranthene	10	10	U																		
Benzo(k)fluoranthene	10	10	U																		
Benzo(a)pyrene	10	10	U																		
Indeno(1,2,3-cd)pyrene	10	10	U																		
Dibenz(a,h)anthracene	10	10	U																		
Benzo(g,h,i)perylene	10	10	U																		

NV = Not Validated

9713514.2416

WHC-SD-EN-TI-168, Rev. 1

Project: WESTINGHOUSE-HANFORD																							
Laboratory: Roy F. Weston																							
Case	SDG: B07ZW7																						
Sample Number		B07ZW7																					
Location		199-B4-4																					
Remarks		NV, Split																					
Sample Date		01/24/93																					
Extraction Date		01/27/93																					
Analysis Date		02/08/93																					
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Phenol	10	10	U																				
bis(2-Chloroethyl)ether	10	10	U																				
2-Chlorophenol	10	10	U																				
1,3-Dichlorobenzene	10	10	U																				
1,4-Dichlorobenzene	10	10	U																				
1,2-Dichlorobenzene	10	10	U																				
2-Methylphenol	10	10	U																				
2,2'-oxybis(1-Chloropropane)	10	10	U																				
4-Methylphenol	10	10	U																				
N-Nitroso-di-n-propylamine	10	10	U																				
Hexachloroethane	10	10	U																				
Nitrobenzene	10	10	U																				
Isophorone	10	10	U																				
2-Nitrophenol	10	10	U																				
2,4-Dimethylphenol	10	10	U																				
bis(2-Chloroethoxy)methane	10	10	U																				
2,4-Dichlorophenol	10	10	U																				
1,2,4-Trichlorobenzene	10	10	U																				
Naphthalene	10	10	U																				
4-Chloroaniline	10	10	U																				
Hexachlorobutadiene	10	10	U																				
4-Chloro-3-methylphenol	10	10	U																				
2-Methylnaphthalene	10	10	U																				
Hexachlorocyclopentadiene	10	10	U																				
2,4,6-Trichlorophenol	10	10	U																				
2,4,5-Trichlorophenol	50	25	U																				
2-Chloronaphthalene	10	10	U																				
2-Nitroaniline	50	25	U																				
Dimethylphthalate	10	10	U																				
Acenaphthylene	10	10	U																				
2,6-Dinitrotoluene	10	10	U																				
3-Nitroaniline	50	25	U																				
Acenaphthene	10	10	U																				

NV = Not Validated

9713514.2117 WHC-HSD-EN-TI-168, Rev. 1

Project: WESTINGHOUSE-HANFORD
Laboratory: Roy F. Weston
Case | SDG: B07ZW7

Sample Number		B07ZW7																			
Location		199-B4-4																			
Remarks		NV, Split																			
Sample Date		01/24/93																			
Extraction Date		01/27/93																			
Analysis Date		02/08/93																			
Semivolatile Compound	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
2,4-Dinitrophenol	50	25	U																		
4-Nitrophenol	50	25	U																		
Dibenzofuran	10	10	U																		
2,4-Dinitrotoluene	10	10	U																		
Diethylphthalate	10	10	U																		
4-Chlorophenyl-phenylether	10	10	U																		
Fluorene	10	10	U																		
4-Nitroaniline	50	25	U																		
4,6-Dinitro-2-methylphenol	50	25	U																		
N-Nitrosodiphenylamine	10	10	U																		
4-Bromophenyl-phenylether	10	10	U																		
Hexachlorobenzene	10	10	U																		
Pentachlorophenol	50	25	U																		
Phenanthrene	10	10	U																		
Anthracene	10	10	U																		
Carbazole	10	10	U																		
Di-n-butylphthalate	10	2	J																		
Fluoranthene	10	10	U																		
Pyrene	10	10	U																		
Butylbenzylphthalate	10	10	U																		
3,3'-Dichlorobenzidine	10	10	U																		
Benzo(a)anthracene	10	10	U																		
Chrysene	10	10	U																		
bis(2-Ethylhexyl)phthalate	10	0.9	J																		
Di-n-octylphthalate	10	10	U																		
Benzo(b)fluoranthene	10	10	U																		
Benzo(k)fluoranthene	10	10	U																		
Benzo(a)pyrene	10	10	U																		
Indeno(1,2,3-cd)pyrene	10	10	U																		
Dibenzo(a,h)anthracene	10	10	U																		
Benzo(g,h,i)perylene	10	10	U																		

NV = Not Validated

97125 HNC-SPC EN-TI-168, Rev. 1

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	PESTICIDES/ PCBs
199-B2-12	B07ZG2	W	01/19/93	V	4-5
199-B2-13	B07ZG7	W	01/23/93	V	4-6
199-B3-1	B07ZH2	W	01/15/93	NV	4-7
199-B3-46	B07ZH7	W	01/21/93	V	4-8
199-B3-47	B07ZJ2	W	01/19/93	V	4-5
199-B4-1	B07ZJ7	W	01/21/93	V	4-8
199-B4-4	B07ZK2	W	01/24/93	V	4-6
199-B4-5	B07ZK7	W	01/26/93	NV	4-9
199-B4-7	B07ZL2	W	01/26/93	NV	4-9
199-B4-8	B07ZL7	W	01/17/93	NV	4-10
199-B4-9	B07ZM2	W	01/24/93	V	4-6
199-B5-1	B07ZM7	W	01/15/93	NV	4-7
199-B5-2	B07ZN2	W	01/23/93	V	4-6
199-B8-6	B07ZN7	W	01/23/93	NV	4-11
199-B9-1	B07ZP2	W	01/22/93	V	4-6
199-B9-2	B07ZP7	W	01/23/93	V	4-6
199-B9-3	B07ZQ2	W	01/22/93	V	4-6
699-63-90	B07ZQ7	W	01/16/93	NV	4-10
699-65-72	B07ZR2	W	01/14/93	NV	4-7
699-65-83	B07ZR7	W	01/30/93	NV	4-12
699-66-64	B07ZS2	W	01/21/93	V	4-8
699-71-77	B07ZS7	W	01/18/93	NV	4-10
699-72-73	B07ZT2	W	01/22/93	V	4-6
699-72-92	B07ZT7	W	01/22/93	V	4-6
199-B4-8	B07ZV2	W	01/17/93	NV	4-10
199-B4-4	B07ZV7	W	01/24/93	V	4-6

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	PESTICIDES/ PCBs
199-B4-8	B072W2	W	01/17/93	NV	4-13
199-B4-4	B07ZW7	W	01/24/93	NV	4-14
EB-1	B07ZX2	W	01/28/93	NV	4-11
EB-2	B07ZX7	W	01/28/93	NV	4-11
699-67-86	B07ZY4	W	01/19/93	V	4-5

4.0 PESTICIDE/PCB DATA VALIDATION

4.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were submitted for validation and found to be complete:

B07ZG2 B07ZG7 B07ZH7

4.2 HOLDING TIMES

Analytical holding times were assessed to ascertain whether the holding time requirements for pesticide/PCB analyses were met by the laboratory. Westinghouse-Hanford procedures require that samples be extracted within seven days of collection and analyzed within 40 days of extraction (WHC 1991a).

Holding times were met for all samples.

4.3 INSTRUMENT PERFORMANCE AND CALIBRATIONS

Instrument performance was assessed to ensure that adequate chromatographic resolution and instrument sensitivity were achieved by the gas chromatographic system.

The specific criteria for acceptable instrument performance are outlined in EPA guidelines (EPA 1988a and 1988b), including the evaluation and qualification procedures that may be performed on the analytical results.

During the quality assurance review, all indicators for acceptable instrument performance were verified. The criteria established by CLP protocols were met and the results are acceptable, except as noted.

Instrument calibration is performed to ensure that the chromatographic system is capable of producing acceptable and reliable analytical data. The initial and continuing calibrations are to be performed according to procedures established by CLP protocols. An initial calibration is performed prior to sample analysis to establish the linear range of the system, including a demonstration that all target compounds can be detected. Continuing calibration checks are performed to verify that instrument performance is stable and reproducible on a day-to-day basis.

4.3.1 Initial Calibrations

The laboratory performed an initial multipoint calibration for the target compounds at the concentrations required by CLP protocols. The linearity of the initial calibration is established when the percent RSD or the calibration factors are less than or equal to 10 percent (or 15 percent for certain analytes).

All initial calibration results were acceptable.

4.3.2 Calibration Verification

The criteria for acceptable continuing calibrations requires that the calibration factors for all target compounds have a percent difference of less than or equal to 15 percent of the average calibration factor calculated for the associated initial calibration standard. The 15 percent difference value is required for results calculated using the chromatographic column which is used for quantitative purposes. In addition, the percent difference of the calibration factors calculated for the chromatographic column that is used for confirmation must be less than or equal to 20 percent.

All calibration verification results were acceptable.

4.4 BLANKS

Method blank and field blank analyses are performed to determine the extent of laboratory or field contamination of samples. No contaminants should be present in the blanks. Analytical results for analytes present in any sample at less than 5 times the concentration of that analyte found in associated blanks should be qualified as non-detects.

There were no compounds of concern detected in the method or field blanks.

4.5 ACCURACY

Accuracy was assessed by evaluating the recoveries of the surrogate compounds and the matrix spike recoveries calculated for the sample analyses.

4.5.1 Matrix Spike Recovery

Matrix spike analyses are performed in duplicate using six compounds specified by CLP protocols. The recoveries for the six

compounds must be within the acceptable quality control limits established by CLP protocols.

All matrix spike/matrix spike duplicate results were acceptable.

4.5.2 Surrogate Recovery

All surrogate recovery results were acceptable.

4.6 PRECISION

Precision is expressed by the RPD between the recoveries of the matrix spike and the matrix spike duplicate analyses performed on a sample. When the laboratory has not performed duplicate spike analyses, precision may also be assessed by using unspiked duplicate analyses.

All matrix spike/matrix spike duplicate RPDs were acceptable.

4.7 COMPOUND IDENTIFICATION AND QUANTITATION

The data were evaluated to confirm the positive concentrations and to investigate the possibility of false negatives in all other data. Confirmation of possible false negatives is addressed by reviewing other factors relating to analytical sensitivity (e.g., detection limits, instrument linearity, analytical recovery). These factors were found to be in control, and the data are acceptable.

All compound identifications and quantitation results were acceptable.

4.7.1 Reported Quantitation Limits

Compound quantitations and reported detection limits were recalculated and verified for a minimum of 20 percent of the samples in each case to ensure that they were accurate and are consistent with CLP requirements (EPA 1988a). The reported detection limits must be in accordance with the CRQLs specified in the applicable CLP statement of work.

The compound quantitations and the CRQLs reported were calculated correctly and were acceptable.

4.8 OVERALL ASSESSMENT AND SUMMARY

A thorough review of ongoing data acquisition and instrument performance criteria was made to assess overall GC/MS instrument performance. No changes in instrument performance were noted that would result in the degradation of data quality. No indications of unacceptable instrument performance (i.e., shifts in baseline stability, retention time shifts, extraneous peaks, or sensitivity) were found during the quality assurance review.

In general, the pesticide/PCB data presented in this report met the protocol-specified QA/QC requirements. The data are considered valid and usable within the standard error associated with the method. All results are acceptable and usable for all purposes.

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZG2																				
Sample Number		B07ZG2		B07ZJ2		B07ZY4															
Location		199-B2-12		199-B3-47		699-67-86															
Remarks																					
Sample Date		01/19/93		01/19/93		01/19/93															
Extraction Date		01/25/93		01/25/93		01/25/93															
Analysis Date		02/02/93		02/02/93		02/03/93															
Pesticide/PCB	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
alpha-BHC	0.05	0.050	U	0.050	U	0.050	U														
beta-BHC	0.05	0.050	U	0.050	U	0.050	U														
delta-BHC	0.05	0.050	U	0.050	U	0.050	U														
gamma-BHC (Lindane)	0.05	0.050	U	0.050	U	0.050	U														
Heptachlor	0.05	0.050	U	0.050	U	0.050	U														
Aldrin	0.05	0.050	U	0.050	U	0.050	U														
Heptachlor epoxide	0.05	0.050	U	0.050	U	0.050	U														
Endosulfan I	0.05	0.050	U	0.050	U	0.050	U														
Dieldrin	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDE	0.10	0.10	U	0.10	U	0.10	U														
Endrin	0.10	0.10	U	0.10	U	0.10	U														
Endosulfan II	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDD	0.10	0.10	U	0.10	U	0.10	U														
Endosulfan sulfate	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDT	0.10	0.10	U	0.10	U	0.10	U														
Methoxychlor	0.50	0.50	U	0.50	U	0.50	U														
Endrin Ketone	0.10	0.10	U	0.10	U	0.10	U														
Endrin Aldehyde	0.10	0.10	U	0.10	U	0.10	U														
alpha-Chlordane	0.05	0.050	U	0.050	U	0.050	U														
gamma-Chlordane	0.05	0.050	U	0.050	U	0.050	U														
Toxaphene	5.00	5.0	U	5.0	U	5.0	U														
Aroclor-1016	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1221	1.00	2.0	U	2.0	U	2.0	U														
Aroclor-1232	2.00	1.0	U	1.0	U	1.0	U														
Aroclor-1242	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1248	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1254	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1260	1.00	1.0	U	1.0	U	1.0	U														

9713514.2139

WHC-SD-EN-TI-168, Rev. 1

PESTICIDE/PCB ORGANIC ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD
Laboratory: TMA
Case | SDG: B07ZG7

Sample Number		B07ZG7		B07ZK2		B07ZM2		B07ZN2		B07ZP2		B07ZP7		B07ZQ2		B07ZT2		B07ZT7		B07ZV7	
Location		199-B2-13		199-B4-4		199-B4-9		199-B5-2		199-B9-1		199-B9-2		199-B9-3		699-72-73		699-72-92		199-B4-4	
Remarks																				Duplicate	
Sample Date		01/23/93		01/24/93		01/24/93		01/23/93		01/22/93		01/23/93		01/22/93		01/22/93		01/22/93		01/24/93	
Extraction Date		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93		01/28/93	
Analysis Date		02/11/93		02/11/93		02/11/93		02/11/93		02/11/93		02/11/93		02/11/93		02/11/93		02/11/93		02/11/93	
Pesticide/PCB	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
alpha-BHC	0.05	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
beta-BHC	0.05	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
delta-BHC	0.05	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
gamma-BHC (Lindane)	0.05	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
Heptachlor	0.05	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
Aldrin	0.05	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
Heptachlor epoxide	0.05	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
Endosulfan I	0.05	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
Dieldrin	0.10	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
4,4'-DDE	0.10	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
Endrin	0.10	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
Endosulfan II	0.10	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
4,4'-DDD	0.10	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
Endosulfan sulfate	0.10	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
4,4'-DDT	0.10	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
Methoxychlor	0.50	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Endrin Ketone	0.10	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
Endrin Aldehyde	0.10	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
alpha-Chlordane	0.05	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
gamma-Chlordane	0.05	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
Toxaphene	5.00	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Aroclor-1016	1.00	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1221	1.00	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Aroclor-1232	2.00	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1242	1.00	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1248	1.00	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1254	1.00	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1260	1.00	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U

PESTICIDE/PCB ORGANIC ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZH2																				
Sample Number		B07ZH2		B07ZM7		B07ZR2															
Location		199-B3-1		199-B5-1		699-65-72															
Remarks		NV		NV		NV															
Sample Date		01/15/93		01/15/93		01/14/93															
Extraction Date		01/20/93		01/20/93		01/20/93															
Analysis Date		02/02/93		02/02/93		02/13/93															
Pesticide/PCB	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
alpha-BHC	0.05	0.050	U	0.050	U	0.050	U														
beta-BHC	0.05	0.050	U	0.050	U	0.050	U														
delta-BHC	0.05	0.050	U	0.050	U	0.050	U														
gamma-BHC (Lindane)	0.05	0.050	U	0.050	U	0.050	U														
Heptachlor	0.05	0.050	U	0.050	U	0.050	U														
Aldrin	0.05	0.050	U	0.050	U	0.050	U														
Heptachlor epoxide	0.05	0.050	U	0.050	U	0.050	U														
Endosulfan I	0.05	0.050	U	0.050	U	0.050	U														
Dieldrin	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDE	0.10	0.10	U	0.10	U	0.10	U														
Endrin	0.10	0.10	U	0.10	U	0.10	U														
Endosulfan II	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDD	0.10	0.10	U	0.10	U	0.10	U														
Endosulfan sulfate	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDT	0.10	0.10	U	0.10	U	0.10	U														
Methoxychlor	0.50	0.50	U	0.50	U	0.50	U														
Endrin Ketone	0.10	0.10	U	0.10	U	0.10	U														
Endrin Aldehyde	0.10	0.10	U	0.10	U	0.10	U														
alpha-Chlordane	0.05	0.050	U	0.050	U	0.050	U														
gamma-Chlordane	0.05	0.050	U	0.050	U	0.050	U														
Toxaphene	5.00	5.0	U	5.0	U	5.0	U														
Aroclor-1016	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1221	1.00	2.0	U	2.0	U	2.0	U														
Aroclor-1232	2.00	1.0	U	1.0	U	1.0	U														
Aroclor-1242	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1248	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1254	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1260	1.00	1.0	U	1.0	U	1.0	U														

NV = Not Validated

9713514.2087
WHC-SD-EN-TI-168, Rev. 1

PESTICIDE/PCB ORGANIC ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZH7																				
Sample Number		B07ZH7		B07ZJ7		B07ZS2															
Location		199-B3-46		199-B4-1		699-66-64															
Remarks																					
Sample Date		01/21/93		01/21/93		01/21/93															
Extraction Date		01/26/93		01/26/93		01/26/93															
Analysis Date		02/03/93		02/03/93		02/03/93															
Pesticide/PCB	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
alpha-BHC	0.05	0.050	U	0.050	U	0.050	U														
beta-BHC	0.05	0.050	U	0.050	U	0.050	U														
delta-BHC	0.05	0.050	U	0.050	U	0.050	U														
gamma-BHC (Lindane)	0.05	0.050	U	0.050	U	0.050	U														
Heptachlor	0.05	0.050	U	0.050	U	0.050	U														
Aldrin	0.05	0.050	U	0.050	U	0.050	U														
Heptachlor epoxide	0.05	0.050	U	0.050	U	0.050	U														
Endosulfan I	0.05	0.050	U	0.050	U	0.050	U														
Dieldrin	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDE	0.10	0.10	U	0.10	U	0.10	U														
Endrin	0.10	0.10	U	0.10	U	0.10	U														
Endosulfan II	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDD	0.10	0.10	U	0.10	U	0.10	U														
Endosulfan sulfate	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDT	0.10	0.10	U	0.10	U	0.10	U														
Methoxychlor	0.50	0.50	U	0.50	U	0.50	U														
Endrin Ketone	0.10	0.10	U	0.10	U	0.10	U														
Endrin Aldehyde	0.10	0.10	U	0.10	U	0.10	U														
alpha-Chlordane	0.05	0.050	U	0.050	U	0.050	U														
gamma-Chlordane	0.05	0.050	U	0.050	U	0.050	U														
Toxaphene	5.00	5.0	U	5.0	U	5.0	U														
Aroclor-1016	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1221	1.00	2.0	U	2.0	U	2.0	U														
Aroclor-1232	2.00	1.0	U	1.0	U	1.0	U														
Aroclor-1242	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1248	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1254	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1260	1.00	1.0	U	1.0	U	1.0	U														

9713514.2498 HC-SD-EN-TI-168, Rev. 1

PESTICIDE/PCB ORGANIC ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																						
Laboratory: TMA																						
Case	SDG: B07ZK7																					
Sample Number		B07ZK7		B07ZL2																		
Location		199-B4-5		199-B4-7																		
Remarks		NV		NV																		
Sample Date		01/26/93		01/26/93																		
Extraction Date		02/01/93		02/01/93																		
Analysis Date		02/11/93		02/11/93																		
Pesticide/PCB	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
alpha-BHC	0.05	0.050	U	0.050	U																		
beta-BHC	0.05	0.050	U	0.050	U																		
delta-BHC	0.05	0.050	U	0.050	U																		
gamma-BHC (Lindane)	0.05	0.050	U	0.050	U																		
Heptachlor	0.05	0.050	U	0.050	U																		
Aldrin	0.05	0.050	U	0.050	U																		
Heptachlor epoxide	0.05	0.050	U	0.050	U																		
Endosulfan I	0.05	0.050	U	0.050	U																		
Dieldrin	0.10	0.10	U	0.10	U																		
4,4'-DDE	0.10	0.10	U	0.10	U																		
Endrin	0.10	0.10	U	0.10	U																		
Endosulfan II	0.10	0.10	U	0.10	U																		
4,4'-DDD	0.10	0.10	U	0.10	U																		
Endosulfan sulfate	0.10	0.10	U	0.10	U																		
4,4'-DDT	0.10	0.10	U	0.10	U																		
Methoxychlor	0.50	0.50	U	0.50	U																		
Endrin Ketone	0.10	0.10	U	0.10	U																		
Endrin Aldehyde	0.10	0.10	U	0.10	U																		
alpha-Chlordane	0.05	0.050	U	0.050	U																		
gamma-Chlordane	0.05	0.050	U	0.050	U																		
Toxaphene	5.00	5.0	U	5.0	U																		
Aroclor-1016	1.00	1.0	U	1.0	U																		
Aroclor-1221	1.00	2.0	U	2.0	U																		
Aroclor-1232	2.00	1.0	U	1.0	U																		
Aroclor-1242	1.00	1.0	U	1.0	U																		
Aroclor-1248	1.00	1.0	U	1.0	U																		
Aroclor-1254	1.00	1.0	U	1.0	U																		
Aroclor-1260	1.00	1.0	U	1.0	U																		

NV = Not Validated

9713514.2468
WHC-SD-EN-TI-168, Rev. 1

PESTICIDE/PCB ORGANIC ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZL7																				
Sample Number		B07ZL7		B07ZQ7		B07ZS7		B07ZV2													
Location		199-B4-8		699-63-90		699-71-77		199-B4-8													
Remarks		NV		NV		NV		NV, DUP													
Sample Date		01/17/93		01/16/93		01/18/93		01/17/93													
Extraction Date		01/22/93		01/22/93		01/22/93		01/22/93													
Analysis Date		02/02/93		02/02/93		02/02/93		02/02/93													
Pesticide/PCB	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
alpha-BHC	0.05	0.050	U	0.050	U	0.050	U	0.050	U												
beta-BHC	0.05	0.050	U	0.050	U	0.050	U	0.050	U												
delta-BHC	0.05	0.050	U	0.050	U	0.050	U	0.050	U												
gamma-BHC (Lindane)	0.05	0.050	U	0.050	U	0.050	U	0.050	U												
Heptachlor	0.05	0.050	U	0.050	U	0.050	U	0.050	U												
Aldrin	0.05	0.050	U	0.050	U	0.050	U	0.050	U												
Heptachlor epoxide	0.05	0.050	U	0.050	U	0.050	U	0.050	U												
Endosulfan I	0.05	0.050	U	0.050	U	0.050	U	0.050	U												
Dieldrin	0.10	0.10	U	0.10	U	0.10	U	0.10	U												
4,4'-DDE	0.10	0.10	U	0.10	U	0.10	U	0.10	U												
Endrin	0.10	0.10	U	0.10	U	0.10	U	0.10	U												
Endosulfan II	0.10	0.10	U	0.10	U	0.10	U	0.10	U												
4,4'-DDD	0.10	0.10	U	0.10	U	0.10	U	0.10	U												
Endosulfan sulfate	0.10	0.10	U	0.10	U	0.10	U	0.10	U												
4,4'-DDT	0.10	0.10	U	0.10	U	0.10	U	0.10	U												
Methoxychlor	0.50	0.50	U	0.50	U	0.50	U	0.50	U												
Endrin Ketone	0.10	0.10	U	0.10	U	0.10	U	0.10	U												
Endrin Aldehyde	0.10	0.10	U	0.10	U	0.10	U	0.10	U												
alpha-Chlordane	0.05	0.050	U	0.050	U	0.050	U	0.050	U												
gamma-Chlordane	0.05	0.050	U	0.050	U	0.050	U	0.050	U												
Toxaphene	5.00	5.0	U	5.0	U	5.0	U	5.0	U												
Aroclor-1016	1.00	1.0	U	1.0	U	1.0	U	1.0	U												
Aroclor-1221	1.00	2.0	U	2.0	U	2.0	U	2.0	U												
Aroclor-1232	2.00	1.0	U	1.0	U	1.0	U	1.0	U												
Aroclor-1242	1.00	1.0	U	1.0	U	1.0	U	1.0	U												
Aroclor-1248	1.00	1.0	U	1.0	U	1.0	U	1.0	U												
Aroclor-1254	1.00	1.0	U	1.0	U	1.0	U	1.0	U												
Aroclor-1260	1.00	1.0	U	1.0	U	1.0	U	1.0	U												

NV = Not Validated, DUP = Duplicate

9713514.2160
WHC-SD-EN-TI-168, Rev. 1

PESTICIDE/PCB ORGANIC ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZN7																				
Sample Number		B07ZN7		B07ZX2		B07ZX7															
Location		199-B8-6		EB-1		EB-2															
Remarks		NV		NV		NV															
Sample Date		01/23/93		01/28/93		01/28/93															
Extraction Date		02/04/93		02/03/93		02/03/93															
Analysis Date		02/12/93		02/12/93		02/12/93															
Pesticide/PCB	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
alpha-BHC	0.05	0.050	U	0.050	U	0.050	U														
beta-BHC	0.05	0.050	U	0.050	U	0.050	U														
delta-BHC	0.05	0.050	U	0.050	U	0.050	U														
gamma-BHC (Lindane)	0.05	0.050	U	0.050	U	0.050	U														
Heptachlor	0.05	0.050	U	0.050	U	0.050	U														
Aldrin	0.05	0.050	U	0.050	U	0.050	U														
Heptachlor epoxide	0.05	0.050	U	0.050	U	0.050	U														
Endosulfan I	0.05	0.050	U	0.050	U	0.050	U														
Dieldrin	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDE	0.10	0.10	U	0.10	U	0.10	U														
Endrin	0.10	0.10	U	0.10	U	0.10	U														
Endosulfan II	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDD	0.10	0.10	U	0.10	U	0.10	U														
Endosulfan sulfate	0.10	0.10	U	0.10	U	0.10	U														
4,4'-DDT	0.10	0.10	U	0.10	U	0.10	U														
Methoxychlor	0.50	0.50	U	0.50	U	0.50	U														
Endrin Ketone	0.10	0.10	U	0.10	U	0.10	U														
Endrin Aldehyde	0.10	0.10	U	0.10	U	0.10	U														
alpha-Chlordane	0.05	0.050	U	0.050	U	0.050	U														
gamma-Chlordane	0.05	0.050	U	0.050	U	0.050	U														
Toxaphene	5.00	5.0	U	5.0	U	5.0	U														
Aroclor-1016	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1221	1.00	2.0	U	2.0	U	2.0	U														
Aroclor-1232	2.00	1.0	U	1.0	U	1.0	U														
Aroclor-1242	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1248	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1254	1.00	1.0	U	1.0	U	1.0	U														
Aroclor-1260	1.00	1.0	U	1.0	U	1.0	U														

NV = Not Validated

9713514.2146 WHC-SD-EN-TI-168, Rev. 1

PESTICIDE/PCB ORGANIC ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZR7																				
Sample Number		B07ZR7																			
Location		699-65-83																			
Remarks		NV																			
Sample Date		01/30/93																			
Extraction Date		02/05/93																			
Analysis Date		02/12/93																			
Pesticide/PCB	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
alpha-BHC	0.05	0.050	U																		
beta-BHC	0.05	0.050	U																		
delta-BHC	0.05	0.050	U																		
gamma-BHC (Lindane)	0.05	0.050	U																		
Heptachlor	0.05	0.050	U																		
Aldrin	0.05	0.050	U																		
Heptachlor epoxide	0.05	0.050	U																		
Endosulfan I	0.05	0.050	U																		
Dieldrin	0.10	0.10	U																		
4,4'-DDE	0.10	0.10	U																		
Endrin	0.10	0.10	U																		
Endosulfan II	0.10	0.10	U																		
4,4'-DDD	0.10	0.10	U																		
Endosulfan sulfate	0.10	0.10	U																		
4,4'-DDT	0.10	0.10	U																		
Methoxychlor	0.50	0.50	U																		
Endrin Ketone	0.10	0.10	U																		
Endrin Aldehyde	0.10	0.10	U																		
alpha-Chlordane	0.05	0.050	U																		
gamma-Chlordane	0.05	0.050	U																		
Toxaphene	5.00	5.0	U																		
Aroclor-1016	1.00	1.0	U																		
Aroclor-1221	1.00	2.0	U																		
Aroclor-1232	2.00	1.0	U																		
Aroclor-1242	1.00	1.0	U																		
Aroclor-1248	1.00	1.0	U																		
Aroclor-1254	1.00	1.0	U																		
Aroclor-1260	1.00	1.0	U																		

NV = Not Validated

9713514.2463
WHC-SD-EN-TI-168, Rev. 1

PESTICIDE/PCB ORGANIC ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																							
Laboratory: Roy F. Weston																							
Case	SDG:	B07ZW2																					
Sample Number		B07ZW2																					
Location		199-B4-8																					
Remarks		SPLIT,NV																					
Sample Date		1/17/93																					
Extraction Date		1/21/93																					
Analysis Date		1/27/93																					
Pesticide/PCB	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
alpha-BHC	0.05	0.050	U																				
beta-BHC	0.05	0.050	U																				
delta-BHC	0.05	0.050	U																				
gamma-BHC (Lindane)	0.05	0.050	U																				
Heptachlor	0.05	0.050	U																				
Aldrin	0.05	0.050	U																				
Heptachlor epoxide	0.05	0.050	U																				
Endosulfan I	0.05	0.050	U																				
Dieldrin	0.10	0.10	U																				
4,4'-DDE	0.10	0.10	U																				
Endrin	0.10	0.10	U																				
Endosulfan II	0.10	0.10	U																				
4,4'-DDD	0.10	0.10	U																				
Endosulfan sulfate	0.10	0.10	U																				
4,4'-DDT	0.10	0.10	U																				
Methoxychlor	0.50	0.50	U																				
Endrin Ketone	0.10	0.10	U																				
Endrin Aldehyde	0.10	0.10	U																				
alpha-Chlordane	0.05	0.050	U																				
gamma-Chlordane	0.05	0.050	U																				
Toxaphene	5.00	5.0	U																				
Aroclor-1016	1.00	1.0	U																				
Aroclor-1221	1.00	2.0	U																				
Aroclor-1232	2.00	1.0	U																				
Aroclor-1242	1.00	1.0	U																				
Aroclor-1248	1.00	1.0	U																				
Aroclor-1254	1.00	1.0	U																				
Aroclor-1260	1.00	1.0	U																				

NV = Not Validated

9713514.2463 WHC-SD-EN-TI-168, Rev. 1

PESTICIDE/PCB ORGANIC ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																							
Laboratory: Roy F. Weston																							
Case	SDG: B07ZW7																						
Sample Number		B07ZW7																					
Location		199-B4-4																					
Remarks		NV, Split																					
Sample Date		01/24/93																					
Extraction Date		01/27/93																					
Analysis Date		02/06/93																					
Pesticide/PCB	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
alpha-BHC	0.05	0.050	U																				
beta-BHC	0.05	0.050	U																				
delta-BHC	0.05	0.050	U																				
gamma-BHC (Lindane)	0.05	0.050	U																				
Heptachlor	0.05	0.050	U																				
Aldrin	0.05	0.050	U																				
Heptachlor epoxide	0.05	0.050	U																				
Endosulfan I	0.05	0.050	U																				
Dieldrin	0.10	0.10	U																				
4,4'-DDE	0.10	0.10	U																				
Endrin	0.10	0.10	U																				
Endosulfan II	0.10	0.10	U																				
4,4'-DDD	0.10	0.10	U																				
Endosulfan sulfate	0.10	0.10	U																				
4,4'-DDT	0.10	0.10	U																				
Methoxychlor	0.50	0.50	U																				
Endrin Ketone	0.10	0.10	U																				
Endrin Aldehyde	0.10	0.10	U																				
alpha-Chlordane	0.05	0.050	U																				
gamma-Chlordane	0.05	0.050	U																				
Toxaphene	5.00	5.0	U																				
Aroclor-1016	1.00	1.0	U																				
Aroclor-1221	1.00	2.0	U																				
Aroclor-1232	2.00	1.0	U																				
Aroclor-1242	1.00	1.0	U																				
Aroclor-1248	1.00	1.0	U																				
Aroclor-1254	1.00	1.0	U																				
Aroclor-1260	1.00	1.0	U																				

NV = Not Validated

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	INORGANICS
199-B2-12	B07ZG2	W	01/19/93	V	5-10
	B07ZG3	W	01/19/93	V	5-18
199-B2-13	B07ZG7	W	01/23/93	V	5-10
	B07ZG8	W	01/23/93	V	5-18
199-B3-1	B07ZH2	W	01/15/93	NV	5-26
	B07ZH3	W	01/15/93	NV	5-27
199-B3-46	B07ZH7	W	01/21/93	V	5-10
	B07ZH8	W	01/21/93	V	5-18
199-B3-47	B07ZJ2	W	01/19/93	V	5-10
	B07ZJ3	W	01/19/93	V	5-18
199-B4-1	B07ZJ7	W	01/21/93	V	5-10
	B07ZJ8	W	01/21/93	V	5-18
199-B4-4	B07ZK2	W	01/24/93	V	5-10
	B07ZK3	W	01/24/93	V	5-18
199-B4-5	B07ZK7	W	01/26/93	NV	5-28
	B07ZK8	W	01/26/93	NV	5-29
199-B4-7	B07ZL2	W	01/26/93	NV	5-28
	B07ZL3	W	01/26/93	NV	5-29
199-B4-8	B07ZL7	W	01/17/93	NV	5-30
	B07ZL8	W	01/17/93	NV	5-31
199-B4-9	B07ZM2	W	01/24/93	V	5-10
	B07ZM3	W	01/24/93	V	5-18
199-B5-1	B07ZM7	W	01/15/93	NV	5-26
	B07ZM8	W	01/15/93	NV	5-27
199-B5-2	B07ZN2	W	01/23/93	V	5-10
	B07ZN3	W	01/23/93	V	5-18
199-B8-6	B07ZN7	W	01/23/93	NV	5-32
	B07ZN8	W	01/23/93	NV	5-33
199-B9-1	B07ZP2	W	01/22/93	V	5-10
	B07ZP3	W	01/22/93	V	5-18
199-B9-2	B07ZP7	W	01/23/93	V	5-10
	B07ZP8	W	01/23/93	V	5-18
199-B9-3	B07ZQ2	W	01/22/93	V	5-11
	B07ZQ3	W	01/22/93	V	5-19

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	INORGANICS
699-63-90	B07ZQ7	W	01/16/93	NV	5-30
	B07ZQ8	W	01/16/93	NV	5-31
699-65-72	B07ZR2	W	01/14/93	NV	5-26
	B07ZR3	W	01/14/93	NV	5-27
699-65-83	B07ZR7	W	01/30/93	NV	5-34
	B07ZR8	W	01/30/93	NV	5-35
699-66-64	B07ZS2	W	01/21/93	V	5-11
	B07ZS3	W	01/21/93	V	5-19
699-71-77	B07ZS7	W	01/18/93	NV	5-30
	B07ZS8	W	01/18/93	NV	5-31
699-72-73	B07ZT2	W	01/22/93	V	5-11
	B07ZT3	W	01/22/93	V	5-19
699-72-92	B07ZT7	W	01/22/93	V	5-11
	B07ZT8	W	01/22/93	V	5-19
199-B4-8	B07ZV2	W	01/17/93	NV	5-30
	B07ZV3	W	01/17/93	NV	5-31
199-B4-4	B07ZV7	W	01/24/93	V	5-11
	B07ZV8	W	01/24/93	V	5-19
199-B4-3	B07ZW2	W	01/17/93	NV	5-36
	B07ZW3	W	01/17/93	NV	5-36
199-B4-4	B07ZW7	W	01/24/93	NV	5-37
	B07ZW8	W	01/24/93	NV	5-38
EB-1	B07ZX2	W	01/28/93	NV	5-32
	B07ZX3	W	01/28/93	NV	5-33
EB-2	B07ZX7	W	01/28/93	NV	5-32
	B07ZX8	W	01/28/93	NV	5-33
699-67-36	B07ZY4	W	01/19/93	V	5-11
	B07ZY5	W	01/19/93	V	5-19

5.0 INORGANIC DATA VALIDATION

5.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were submitted for validation and found to be complete:

B07ZG2 B07ZG3

5.2 HOLDING TIMES

Analytical holding times for ICP metals, GFAA metals, and CVAA mercury analyses were assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirements are as follows: samples must be analyzed within twenty-eight days for mercury, 14 days for cyanide, and within six months for all other metals.

All holding time requirements for all analytes in all data packages were met for this report.

5.3 INSTRUMENT PERFORMANCE AND CALIBRATIONS

Performance of specific instrument quality assurance and quality control procedures, including deficiencies noted during the quality assurance review, are outlined below.

Three calibration standards and a blank were analyzed for arsenic, selenium, thallium, and lead by GFAA. The correlation coefficient of a least squares linear regression met the requirements for calibration in all cases.

Up to five calibration standards and a blank were analyzed for mercury by CVAA. The correlation coefficient of a least squares linear regression met the requirements for calibration.

At least one standard and a blank were analyzed by ICP for all other elements.

The above calibrations were each immediately verified with an ICV standard and a calibration blank. The ICV was prepared from a source independent of the calibration standards, at a mid-calibration range concentration. The ICV percent recovery must fall within the control limits of 90 to 110 percent for metals analyzed by ICP and GFAA, and 80 to 120 percent for

mercury. Calibration linearity near the detection limit was verified with a standard prepared at a concentration near the CRDL.

The ICVs met the recommended control limits for all cases.

The calibrations were subsequently verified at regular intervals using a CCV standard. The control windows for percent recovery of CCV standards are the same as the ICV windows described above.

The CCVs met the recommended control limits in all cases.

5.3.1 ICP Calibration

An ICS was analyzed at the beginning and end of each ICP sample run to verify the laboratory interelement and background correction factors. Results for the ICS solution must fall within the control limit of ±20 percent of the true value.

A five-fold serial dilution is required for all elements analyzed by ICP. The subsequent concentrations of the reanalysis are compared with the original analysis. If the analyte concentration is sufficiently high (a minimum factor of 50 above the IDL) then the serial dilution must agree within 10% of the original determination after correction for dilution.

The ICS has been analyzed at the proper frequency and all ICSAB solution percent recovery values fell within the control limit.

5.3.2 Atomic Absorption Calibrations

Duplicate injections are required for all GFAA analyses. The duplicate injections establish the precision of the individual analytical determinations. For sample concentrations greater than the CRDL, duplicate injections must agree within ±20 percent RSD.

5.3.3 Cyanide Analysis Calibrations

Cyanide analysis was performed by mid-distillation under Method 335.2 CLP-M (semi-automated spectrophotometric). The detection limit for the semi-automated colorimetric method is approximately 10 ug/L.

The cyanide as hydrocyanic acid (HCN) is released from cyanide complexes by means of mid-reflux-distillation operation and absorbed in a scrubber containing sodium hydroxide solution.

The cyanide ion in the absorbing solution is then determined colorimetrically.

All results fell within the acceptable limits.

5.4 BLANKS

Samples with digestate concentrations (in ug/L) of less than five times (<5x) the highest amount found in any of the associated blanks have had their associated values qualified as non-detected (U). Samples with concentrations of greater than five times (>5x) the highest amount found in any of the associated blanks do not require qualification.

Due to the presence of laboratory blank contamination, the following samples were flagged "U" for aluminum:

- Sample numbers B07ZG8, B07ZN3, B07ZP3, B07ZQ3, B07ZT8 and B07ZY5 in SDG No. B07ZG3.

Due to the presence of laboratory blank contamination, the following samples were flagged "U" for antimony:

- Sample numbers B07ZJ2, B07ZM2, B07ZS2 and B07ZT2 in SDG No. B07ZG2.

Due to the presence of laboratory blank contamination, the following samples were flagged "U" for arsenic:

- Sample numbers B07ZG2, B07ZG7, B07ZH7, B07ZJ2, B07ZJ7, B07ZK2, B07ZM2, B07ZN2, B07ZP2, B07ZP7, B07ZQ2, B07ZS2, B07ZT2, B07ZV7 and B07ZY4 in SDG No. B07ZG2.

Due to the presence of laboratory blank contamination the following samples were flagged "U" for barium:

- Sample numbers B07ZP3, B07ZP8, B07ZQ3, B07ZS3, B07ZT3, B07ZT8 and B07ZY5 in SDG No. B07ZG3.

Due to the presence of laboratory blank contamination, the following sample was flagged "U" for copper:

- Sample number B07ZQ2 in SDG No. B07ZG2.

Due to the presence of laboratory blank contamination, the following samples were flagged "U" for iron:

- Sample numbers B07ZG2, B07ZG7, B07ZH7, B07ZJ2, B07ZJ7, B07ZK2, B07ZM2, B07ZN2, B07ZP2, B07ZP7, B07ZS2, B07ZT2, B07ZT7, B07ZV7 and B07ZY4 in SDG No. B07ZG2.

- Sample numbers B07ZG8, B07ZJ8, B07ZM3, B07ZN3, B07ZP3, B07ZP8, B07ZT3 and B07ZY5 in SDG No. B07ZG3.

Due to the presence of laboratory blank contamination, the following samples were flagged "U" for manganese:

- Sample numbers B07ZG7 and B07ZP7 in SDG No. B07ZG2.
- Sample number B07ZQ3 in SDG No. B07ZG3.

Due to the presence of laboratory blank contamination, the following sample was flagged "U" for zinc:

- Sample number B07ZQ3 in SDG No. B07ZG3.

All other laboratory blank results were acceptable.

5.5 ACCURACY

5.5.1 Matrix Spike Recovery

Matrix spike analyses are used to assess the analytical accuracy of the reported data and the effect of the matrix on the ability to accurately quantify sample concentrations. Matrix spike recoveries must generally fall within the range of 75 to 125 percent. Samples with a spike recovery of less than 30% and a sample value below the IDL were rejected and flagged "R", all other samples with a spike recovery outside the QC limits are qualified as estimates and flagged "J".

Matrix spike recoveries fell outside the quality control requirement for selenium; all associated samples were flagged "J" in SDG No. B07ZG3.

Matrix spike recoveries fell outside the quality control requirement for thallium; all associated samples were flagged "J" in SDG No. B07ZG2.

Matrix spike recoveries fell below the minimum quality control requirement of 30% for selenium; all associated samples were rejected and flagged "R" in SDG No. B07ZG2.

All other matrix spike recovery results were acceptable.

5.5.2 Laboratory Control Sample Recovery

The LCS monitors the overall performance of the analysis, including the sample preparation. An LCS should be digested or distilled and analyzed with every group of samples which have been prepared together. The performance criteria for solid LCS

samples are established through interlaboratory studies coordinated by a certifying agency (e.g., EPA or an independent commercial supplier).

One liquid LCS was digested and analyzed for each of the cases in this report that contained water samples. The results were compared against the control limit of 80-120% as required by the EPA CLP SOW 3/90 protocol and found to be acceptable.

All results were found to be acceptable.

5.6 PRECISION

5.6.1 Laboratory Duplicate Samples

The laboratory duplicate results measures the precision of the method by measuring a second aliquot of the sample that is treated the same way as the original. Samples whose precision fell outside the quality control requirements were flagged as estimates "J".

All laboratory duplicate recovery results were acceptable.

5.6.2 ICP Serial Dilution

The ICP serial dilution is used to determine whether significant physical or chemical interferences exist due to sample matrix. If sample concentration is $\geq$ 50 times the IDL for an analyte and the %D is outside the control limits the associated data must be qualified as estimates "J".

All ICP serial dilution results were acceptable.

5.6.3 Total and Dissolved (Filtered) Sample Analysis

Inorganics parameters included the analysis of total as well as dissolved samples. Total samples include particulate and dissolved fractions and dissolved samples are first filtered prior to preparation. The purpose of the analysis is to determine the percent difference between the results of the dissolved (filtered) samples vs. the results of the total samples when dissolved concentrations are greater than the CRDL and the total concentration. Results of both dissolved and total samples are qualified as estimates and flagged "J" when the dissolved analyte is greater than the respective total concentration analyte by more than 10%. Results of both dissolved and total samples are rejected and flagged "R" when the dissolved analyte is greater than its total concentration by more than 50%.

Since Westinghouse Validation Guidelines do not address this issue, the guidelines outlined in the Standard Operation Procedure for Evaluation of Metals Data for the Contract Laboratory Program, Region II were followed.

Below is a table of the total and dissolved samples which were validated and compared using the method described above.

Total	Dissolved
B07ZG2	B07ZG3
B07ZG7	B07ZG8
B07ZH7	B07ZH8
B07ZJ2	B07ZJ3
B07ZJ7	B07ZJ8
B07ZK2	B07ZK3
B07ZM2	B07ZM3
B07ZN2	B07ZN3
B07ZP2	B07ZP3
B07ZP7	B07ZP8
B07ZQ2	B07ZQ3
B07ZS2	B07ZS3
B07ZT2	B07ZT3
B07ZT7	B07ZT8
B07ZV7	B07ZV8
B07ZY4	B07ZY5

The RPD between the total and dissolved sample fell outside the quality control requirement of 10% for chromium between samples B07ZY4 and B07ZY5. Both samples were qualified as estimates and flagged "J".

All other results met the QC requirements.

5.7 FURNACE AA QUALITY CONTROL

The post-digestion analytical spike is analyzed to determine the extent of interference in the digestate matrix. When the results of the analytical spike analyses exceeds the control window of 85 to 115 percent recovery and the absorbance of the sample is greater than fifty percent of the analytical spike absorbance, then the sample must be reanalyzed using the MSA. The duplicate injections and the analytical spike recoveries establish the precision and accuracy of the individual GFAA determinations.

5.7.1 Duplicate Injections

Each furnace analysis requires a minimum of two injections (burns), except for full Method of Standard Addition (MSA). For

concentrations greater than CRDL, the duplicate injection readings must agree within 20% relative standard deviation (RSD) or coefficient of variation (CV). If these requirements are not met, the analytical sample must be rerun once (i.e., two additional burns). If the readings are then still outside the QC limits, the result is qualified as an estimate and flagged "J".

The duplicate injection quality control requirements were not met and associated results were flagged "J" for selenium in the following samples:

- Sample number B07ZT7 in SDG No. B07ZG2.
- Sample number B07ZN3 in SDG No. B07ZG3.

All other duplicate injection quality control requirements were met.

5.7.2 Analytical Spike Recoveries

For all samples whose analytical spike results were outside the 85 to 115 percent control limit, but whose absorbances are less than 50 percent of the analytical spike absorbance, the samples were flagged as estimates "J". In cases where the analytical spike recovery was 0.0 percent, the results were rejected and flagged "R".

The analytical spike recovery fell outside the established QC limits and associated results were flagged "J" for arsenic in the following samples:

- Sample numbers B07ZG7, B07ZH7, B07ZJ2, B07ZJ7, B07ZK2, B07ZN2, B07ZP2, B07ZP7, B07ZS2, B07ZV7 and B07ZY4 in SDG No. B07ZG2.
- Sample numbers B07ZH8, B07ZJ3, B07ZJ8, B07ZK3, B07ZM3, B07ZN3, B07ZP3, B07ZP8, B07ZQ3, B07ZS3, B07ZV8 and B07ZY5 in SDG No. B07ZG3.

The analytical spike recovery fell outside the established QC limits and associated results were flagged "J" for lead in the following samples:

- Sample number B07ZQ2 in SDG No. B07ZG2.
- Sample numbers B07ZM3, B07ZN3, B07ZP8, B07ZQ3 and B07ZS3 in SDG No. B07ZG3.

The analytical spike recovery fell outside the established QC limits and associated results were flagged "J" for selenium in the following samples:

- Sample numbers B07ZG2, B07ZJ2, B07ZJ7, B07ZK2, B07ZM2, B07ZN2, B07ZP2, B07ZP7, B07ZQ2, B07ZT2 and B07ZT7 in SDG No. B07ZG2.

- Sample numbers B07ZG3, B07ZG8, B07ZH8, B07ZJ3, B07ZJ8, B07ZM3, B07ZN3, B07ZP3, B07ZP8, B07ZQ3, B07ZS3, B07ZT3, B07ZT8, B07ZV8 and B07ZY5 in SDG No. B07ZG3.

The analytical spike recovery fell outside the established QC limits and associated results were flagged "J" for thallium in the following samples:

- Sample numbers B07ZG2, B07ZG7, B07ZH7, B07ZJ2, B07ZJ7, B07ZK2, B07ZM2, B07ZN2, B07ZP2, B07ZP7, B07ZQ2, B07ZS2, B07ZT2, B07ZT7, B07ZV7 and B07ZY4 in SDG No. B07ZG2.

- Sample numbers B07ZG3, B07ZG8, B07ZH8, B07ZJ3, B07ZJ8, B07ZK3, B07ZM3, B07ZN3, B07ZP3, B07ZP8, B07ZQ3, B07ZS3, B07ZT3, B07ZT8, B07ZV8 and B07ZY5 in SDG No. B07ZG3.

The analytical spike recovery was 0.0 percent and associated result was rejected and flagged "R" for selenium in the following sample:

- Sample number B07ZK3 in SDG No. B07ZG3.

All other analytical spike recovery results were acceptable.

5.8 ANALYTE QUANTITATION AND DETECTION LIMITS

Twenty percent of sample results and reported detection limits were recalculated to ensure that the reported results were accurate. Raw data were examined for anomalies, transcription errors, and reduction errors.

The reviewer verified that the results and detection limits fell within the linear range of the instrument.

5.9 OVERALL ASSESSMENT AND SUMMARY

All samples were analyzed and reported under the 1990 CLP protocol (EPA 1990). Several inconsistencies and deviations from the protocol were observed. They are as follows:

CCV and CCB must be analyzed immediately after the ICV and ICB. ICAP, Mercury and Cyanide do not follow this protocol. For ICAP analysis a CCV and CCB were run after the initial interference checks and CRI. This is incorrect since the ICSA/AB and CRII are considered analytical samples and according to the CLP protocol a CCV and CCB must be run prior to any analytical samples. For mercury and cyanide the CCV and CCB were analyzed

for after the first ten samples. Refer to Sections E-11 paragraph 2b and E-12 paragraph 4a of the EPA CLP SOW 3/90 protocol.

Internal (TMA Laboratory) Chains of Custody lacked sufficient information such as interdepartmental transfers, i.e., from the sample custodian to the technician responsible for sample preparation and the dates these transfers took place. Refer to Sections F-2, paragraph 1.2 and F-3, paragraph 1.4 of the EPA CLP SOW 3/90 protocol.

All potassium results associated with SDG No. B07ZG3 were not included in the inorganics report forms 1-9. Results were added manually by validation staff according to the raw data provided.

Except as noted in the preceeding sections, all other data are usable for all purposes.

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD
Laboratory: TMA
Case | SDG: B07ZG2

Sample Number		B07ZG2		B07ZG7		B07ZH7		B07ZJ2		B07ZJ7		B07ZK2		B07ZM2		B07ZN2		B07ZP2		B07ZP7	
Location		199-B2-12		199-B2-13		199-B3-46		199-B3-47		199-B4-1		199-B4-4		199-B4-9		199-B5-2		199-B9-1		199-B9-2	
Remarks																					
Sample Date		01/19/93		01/23/93		01/21/93		01/19/93		01/21/93		01/24/93		01/24/93		01/23/93		01/22/93		01/23/93	
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	27.0	U	34.6		27.0	U	28.0		27.0	U	27.0	U	27.0	U	27.0	U	27.0	U	27.0	U
Antimony	60	18.4	U	18.4	U	18.4	U	18.6	U	18.4	U	18.4	U	18.6	U	18.4	U	18.4	U	18.4	U
Arsenic	10	4.3	U	3.4	UJ	2.6	UJ	2.3	UJ	3.7	UJ	3.3	UJ	2.7	U	4.2	UJ	5.3	UJ	4.6	UJ
Barium	200	66.4		36.2		32.9		33.3		30.1		22.6		32.4		30.3		10.5		16.4	
Beryllium	5	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Cadmium	5	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U
Calcium	5000	23500		37800		49100		48200		49400		49100		50000		49700		47700		46500	
Chromium	10	7.4		22.0		5.8		14.9		10.5		9.8		19.3		11.2		16.3		21.7	
Cobalt	50	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Copper	25	2.9	U	2.9	U	2.9	U	2.9	U	2.9	U	2.9	U	2.9	U	2.9	U	2.9	U	2.9	U
Iron	100	59.8	U	55.9	U	26.0	U	20.2	U	57.2	U	14.0	U	53.8	U	40.7	U	30.0	U	70.0	U
Lead	3	2.8		38.4		1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Magnesium	5000	8410		9240		6930		7390		6570		7630		7590		6180		10200		10700	
Manganese	15	74.7		1.1	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.4	U
Mercury	0.2	0.14		0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.11		0.11		0.10	U	0.10	U
Nickel	40	4.5		3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.9		3.6		3.0	U	7.3	
Potassium	5000	4990		3720		2600		1760		3870		4540		4730		4700		6310		6150	
Selenium	5	19.0	R	3.8	R	19.0	R	3.8	R	3.8	R	3.8	R	19.0	R	3.8	R	19.0	R	3.8	R
Silver	10	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U
Sodium	5000	12500		10700		13600		9560		10600		11200		11400		10800		12600		12200	
Thallium	10	1.9	UJ	1.9	UJ	1.9	UJ	1.9	UJ	1.9	UJ	1.9	UJ	1.9	UJ	1.9	UJ	1.9	UJ	1.9	UJ
Vanadium	50	26.4		6.4		2.5	U	2.5	U	5.0		6.0		5.1		4.7		12.1		8.4	
Zinc	20	5.8		4.7	U	4.7	U	4.7	U	4.7	U	4.7	U	4.7	U	4.7	U	4.7	U	4.7	U
Cyanide	10	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZG2																				
Sample Number		B07ZQ2		B07ZS2		B07ZT2		B07ZT7		B07ZV7		B07ZY4									
Location		199-B9-3		699-66-64		699-72-73		699-72-92		199-B4-4		699-67-86									
Remarks										Duplicate 2											
Sample Date		01/22/93		01/21/93		01/22/93		01/22/93		01/24/93		01/19/93									
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	27.0	U	27.0	U	27.0	U	27.0	U	27.0	U	27.0	U								
Antimony	60	18.4	U	19.3	U	29.2	U	18.4	U	18.4	U	18.4	U								
Arsenic	10	3.5	U	5.0	UJ	5.6	U	2.0	U	4.7	UJ	3.8	UJ								
Barium	200	16.2		11.4		19.8		17.9		22.1		12.4									
Beryllium	5	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U								
Cadmium	5	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U								
Calcium	5000	46100		35700		32000		37200		50600		33400									
Chromium	10	16.6		2.7	U	2.7	U	9.2		9.2		11.5	J								
Cobalt	50	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U								
Copper	25	3.0	U	2.9	U	2.9	U	2.9	U	2.9	U	2.9	U								
Iron	100	55.2	U	6.5	U	14.0	U	14.7	U	12.4	U	63.1	U								
Lead	3	2.1	J	2.1		2.2		1.5	U	1.5	U	2.5									
Magnesium	5000	10500		10600		8440		9320		7840		9290									
Manganese	15	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U								
Mercury	0.2	0.14		0.10	U	0.11		0.11		0.11		0.10	U								
Nickel	40	4.5		3.0	U	3.0	U	3.0	U	3.0	U	3.0	U								
Potassium	5000	5800		5760		4940		3940		4710		5690									
Selenium	5	19.0	R	19.0	R	3.8	R	3.8	R	19.0	R	19.0	R								
Silver	10	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U								
Sodium	5000	11700		21300		13200		8020		11600		15600									
Thallium	10	1.9	UJ	1.9	UJ	1.9	UJ	1.9	UJ	1.9	UJ	1.9	UJ								
Vanadium	50	8.7		12.7		10.0		3.4		4.7		14.4									
Zinc	20	13.9		39.2		4.7	U	4.7	U	4.7	U	4.7	U								
Cyanide	10	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U								

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BLANK AND SAMPLE DATA SUMMARY

SDG: B07ZG2	REVIEWER: KG			DATE: 5/19/93				PAGE 1 OF 1	
COMMENTS:									
SAMPLE ID	COMPOUND	RESULT	Q	RT	UNITS	5X RESULT	10X RESULT	SAMPLES AFFECTED	QUALIFIER
CCB	Antimony	22.8			ug/L	114.0	228.0	B07ZJ2, B07ZM2, B07ZS2, B07ZT2	U
CCB	Arsenic	2.1			ug/L	10.5	21.0	All except B07ZT7	U
CCB	Copper	3.4			ug/L	17.0	34.0	B07ZQ2	U
PBW	Iron	26.5			ug/L	132.5	265.0	All except B07ZS2	U
PBW	Magnesium	36.8			ug/L	184.0	368.0	None	None
ICV	Manganese	-1.1			ug/L	-5.5	-11.0	B07ZG7, B07ZP7	U
CCB	Sodium	-64.7			ug/L	-323.5	-647.0	None	None
ICB	Thallium	2.3			ug/L	11.5	23.0	None	None

ACCURACY DATA SUMMARY

SDG: B07ZG2	REVIEWER: KG	DATE: 5/19/93	PAGE 1 OF 3	
COMMENTS:				
SAMPLE ID	COMPOUND	% RECOVERY	SAMPLE(S) AFFECTED	QUALIFIER REQUIRED
B07ZV7S	Selenium	0.0%	All	R
B07ZV7S	Thallium	67.0	All	J
B07ZG7A	Arsenic	76.9	B07ZG7	J
B07ZH7A	Arsenic	65.9	B07ZH7	J
B07ZJ2A	Arsenic	71.8	B07ZJ2	J
B07ZJ7A	Arsenic	57.8	B07ZJ7	J
B07ZK2A	Arsenic	72.5	B07ZK2	J
B07ZN2A	Arsenic	80.3	B07ZN2	J
B07ZP2A	Arsenic	82.5	B07ZP2	J
B07ZP7A	Arsenic	79.7	B07ZP7	J
B07ZS2A	Arsenic	75.4	B07ZS2	J
B07ZV7A	Arsenic	74.1	B07ZV7	J
B07ZY4A	Arsenic	78.7	B07ZY4	J
B07ZQ2A	Lead	84.4	B07ZQ2	J
B07ZG2A	Selenium	50.4	B07ZG2	J
B07ZJ2A	Selenium	42.8	B07ZJ2	J
B07ZJ7A	Selenium	41.7	B07ZJ7	J

ACCURACY DATA SUMMARY

SDG: B07ZG2	REVIEWER: KG	DATE: 5/19/93	PAGE 2 OF 3	
COMMENTS:				
SAMPLE ID	COMPOUND	% RECOVERY	SAMPLE(S) AFFECTED	QUALIFIER REQUIRED
B07ZK2A	Selenium	46.7	B07ZK2	J
B07ZM2A	Selenium	18.4	B07ZM2	J
B07ZN2A	Selenium	58.6	B07ZN2	J
B07ZP2A	Selenium	16.3	B07ZP2	J
B07ZP7A	Selenium	63.8	B07ZP7	J
B07ZQ2A	Selenium	27.9	B07ZQ2	J
B07ZT2A	Selenium	57.6	B07ZT2	J
B07ZT7A	Selenium	58.7	B07ZT7	J
B07ZG2A	Thallium	66.2	B07ZG2	J
B07ZG7A	Thallium	65.1	B07ZG7	J
B07ZH7A	Thallium	62.7	B07ZH7	J
B07ZJ2A	Thallium	60.3	B07ZJ2	J
B07ZJ7A	Thallium	57.9	B07ZJ7	J
B07ZK2A	Thallium	71.0	B07ZK2	J
B07ZM2A	Thallium	63.9	B07ZM2	J
B07ZN2A	Thallium	63.9	B07ZN2	J
B07ZP2A	Thallium	65.1	B07ZP2	J

ACCURACY DATA SUMMARY

SDG: B07ZG2	REVIEWER: KG	DATE: 5/19/93	PAGE 3 OF 3	
COMMENTS:				
SAMPLE ID	COMPOUND	% RECOVERY	SAMPLE(S) AFFECTED	QUALIFIER REQUIRED
B07ZP7A	Thallium	59.1	B07ZP7	J
B07ZQ2A	Thallium	65.1	B07ZQ2	J
B07ZS2A	Thallium	69.5	B07ZS2	J
B07ZT2A	Thallium	69.8	B07ZT2	J
B07ZT7A	Thallium	66.2	B07ZT7	J
B07ZV7A	Thallium	62.7	B07ZV7	J
B07ZY4A	Thallium	61.5	B07ZY4	J

PRECISION DATA SUMMARY

SDG: B07ZG2	REVIEWER: LM	DATE: 5/26/93	PAGE 1 OF 1
COMMENTS:			

COMPOUND	SAMPLE ID:	SAMPLE ID:	RPD	SAMPLES AFFECTED	QUALIFIER
Chromium	B07ZY4	B07ZY5	18.2	B07ZY4, B07ZY5	J

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DATA QUALIFICATION SUMMARY

SDG: B07ZG2	REVIEWER: KG	DATE: 5/19/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Antimony	U	B07ZJ2, B07ZM2, B07ZS2, B07ZT2	Lab blank
Arsenic	U	All except B07ZT7	Lab blank
Copper	U	B07ZQ2	Lab blank
Iron	U	All except B07ZS2	Lab blank
Magnesium	None	None	Lab blank
Manganese	U	B07ZG7, B07ZP7	Lab blank
Sodium	None	None	Lab blank
Thallium	None	None	Lab blank
Selenium	R	All	Matrix spike
Thallium	J	All	Matrix spike
Arsenic	J	B07ZG7, B07ZH7, B07ZJ2, B07ZJ7, B07ZK2, B07ZN2, B07ZP2, B07ZP7, B07ZS2, B07ZV7, B07ZY4	GFAA analytical spike
Lead	J	B07ZQ2	GFAA analytical spike
Selenium	J	B07ZG2, B07ZJ2, B07ZJ7, B07ZK2, B07ZM2, B07ZN2, B07ZP2, B07ZP7, B07ZQ2, B07ZT2, B07ZT7	GFAA analytical spike
Thallium	J	All	GFAA analytical spike
Chromium	J	B07ZY4	Total vs. Filtered RPD out
Selenium	J	B07ZT7	CV > 20%

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZG3																				
Sample Number		B07ZG3		B07ZG8		B07ZH8		B07ZJ3		B07ZJ8		B07ZK3		B07ZM3		B07ZN3		B07ZP3		B07ZP8	
Location		199-B2-12		199-B2-13		199-B3-46		199-B3-47		199-B4-1		199-B4-4		199-B4-9		199-B5-2		199-B9-1		199-B9-2	
Remarks		FIL		FIL		FIL		FIL		FIL		FIL		FIL		FIL		FIL		FIL	
Sample Date		01/19/93		01/23/93		01/21/93		01/19/93		01/21/93		01/24/93		01/24/93		01/23/93		01/22/93		01/23/93	
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	21.2	U	33.6	U	21.2	U	21.2	U	21.2	U	21.2	U	21.2	U	33.6	U	30.1	U	21.2	U
Antimony	60	19.0	U	19.0	U	19.0	U	19.0	U	19.0	U	19.0	U	19.0	U	19.0	U	19.0	U	19.0	U
Arsenic	10	3.7	U	3.7	U	3.7	UJ	3.7	UJ	3.7	UJ	3.9	J	3.7	UJ	3.7	UJ	3.7	UJ	3.7	UJ
Barium	200	70.9		40.9		31.2		31.2		31.2		25.2		34.8		33.6		13.2	U	21.6	U
Beryllium	5	0.90	U	0.90	U	0.90	U	0.90	U	0.90	U	0.90	U	0.90	U	0.90	U	0.90	U	0.90	U
Cadmium	5	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
Calcium	5000	25200		40000		49000		48900		52500		51600		52300		53900		46900		48000	
Chromium	10	4.2	U	21.4		5.0		13.2		11.3		12.6		10.1		11.3		16.4		13.8	
Cobalt	50	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U
Copper	25	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U
Iron	100	3.7	U	6.8	U	3.7	U	3.7	U	17.3	U	3.7	U	16.9	U	17.3	U	30.1	U	14.7	U
Lead	3	2.4	U	1.2	U	1.2	U	6.0	U	1.2	U	3.3	U	1.2	UJ	1.2	UJ	1.2	U	1.5	UJ
Magnesium	5000	9070		9800		7000		7550		7010		8050		8010		6800		10300		11100	
Manganese	15	71.3		1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Mercury	0.2	0.11		0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
Nickel	40	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U
Potassium	5000	5348		3986		2539		1927		4190		4598		5101		5106		6744		6340	
Selenium	5	16.5	UJ	16.5	UJ	16.5	UJ	16.5	UJ	3.3	UJ	16.5	R	3.3	UJ	16.5	UJ	16.5	UJ	3.3	UJ
Silver	10	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U
Sodium	5000	13100		11200		13300		9630		11100		11600		11900		11700		13100		12400	
Thallium	10	2.6	UJ	2.6	UJ	2.6	UJ	2.6	UJ	2.6	UJ	2.6	UJ	2.6	UJ	2.6	UJ	2.6	UJ	2.6	UJ
Vanadium	50	31.8		10.4		4.6		4.0	U	4.7		7.8		7.2		7.2		12.4		10.9	
Zinc	20	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Cyanide	10	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	

FIL = Filtered, DUP2 = Duplicate 2, N/A = Not Applicable

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Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZG3																				
Sample Number		B07ZQ3		B07ZS3		B07ZT3		B07ZT8		B07ZV8		B07ZY5									
Location		199-B9-3		699-66-64		699-72-73		699-72-92		199-B4-4		699-67-86									
Remarks		FIL		FIL		FIL		FIL		FIL, DUP2		FIL									
Sample Date		01/22/93		01/21/93		01/22/93		01/22/93		01/24/93		01/19/93									
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	29.6	U	21.2	U	21.2	U	31.3	U	21.2	U	34.7	U								
Antimony	60	19.0	U	19.0	U	19.0	U	19.0	U	19.0	U	19.0	U								
Arsenic	10	3.7	UJ	3.7	UJ	3.7	U	3.7	U	3.7	UJ	3.7	UJ								
Barium	200	21.6	U	14.4	U	22.8	U	20.4	U	28.8		14.4	U								
Beryllium	5	0.90	U	0.90	U	0.90	U	0.90	U	0.90	U	0.90	U								
Cadmium	5	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U								
Calcium	5000	48200		36700		35000		38500		51800		33000									
Chromium	10	11.4		4.2	U	4.2	U	13.8		10.7		13.8	J								
Cobalt	50	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U								
Copper	25	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U								
Iron	100	644		3.7	U	15.0	U	3.7	U	3.7	U	63.2	U								
Lead	3	1.2	UJ	1.3	UJ	1.2	U	1.2	U	2.5	U	2.1	U								
Magnesium	5000	11100		10900		9300		9710		8080		9250									
Manganese	15	9.8	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U								
Mercury	0.2	0.10	U	0.11		0.10	U	0.10	U	0.10	U	0.10	U								
Nickel	40	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U								
Potassium	5000	6169		5771		5571		4062		4580		5500									
Selenium	5	3.3	UJ	3.3	UJ	16.5	UJ	3.3	UJ	16.5	UJ	16.5	UJ								
Silver	10	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U								
Sodium	5000	12300		21400		14300		8230		11600		15200									
Thallium	10	2.6	UJ	2.6	UJ	2.6	UJ	2.6	UJ	2.6	UJ	2.6	UJ								
Vanadium	50	10.5		14.9		15.4		6.7		7.8		16.0									
Zinc	20	9.1	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U								
Cyanide	10	N/A		N/A		N/A		N/A		N/A		N/A									

FIL = Filtered, DUP2 = Duplicate 2, N/A = Not Applicable

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BLANK AND SAMPLE DATA SUMMARY

SDG: B07ZG3	REVIEWER: KG			DATE: 5/20/93				PAGE 1 OF 1	
COMMENTS:									
SAMPLE ID	COMPOUND	RESULT	Q	RT	UNITS	5X RESULT	10X RESULT	SAMPLES AFFECTED	QUALIFIER
CCB	Aluminum	28.0			ug/L	140.0	280.0	B07ZG8, B07ZN3, B07ZP3, B07ZQ3, B07ZT8, B07ZY5	U
ICB	Barium	4.8			ug/L	24.0	48.0	B07ZP3, B07ZP8, B07ZQ3, B07ZS3, B07ZT3, B07ZT8, B07ZY5	U
CCB	Cadmium	1.5			ug/L	7.5	15.0	None	None
ICB	Calcium	-53.9			ug/L	-270.0	-539.0	None	None
PBW	Iron	33.5			ug/L	168.0	335.0	B07ZG8, B07ZJ8, B07ZM3, B07ZN3, B07ZP3, B07ZP8, B07ZT3, B07ZY5	U
CCB	Magnesium	87.4			ug/L	437.0	874.0	None	None
ICB	Manganese	7.0			ug/L	35.0	70.0	B07ZQ3	U
CCB	Potassium	213.6			ug/L	1068.0	2136.0	None	None
ICB	Selenium	-4.0			ug/L	-20.0	-40.0	None	None
CCB	Zinc	-10.2			ug/L	-51.0	-102.0	B07ZQ3	U

ACCURACY DATA SUMMARY

SDG: B07ZG3	REVIEWER: KG	DATE: 5/20/93	PAGE 1 OF 3	
COMMENTS:				
SAMPLE ID	COMPOUND	% RECOVERY	SAMPLE(S) AFFECTED	QUALIFIER REQUIRED
B07ZV8S	Selenium	46.6	All	J
B07ZH8A	Arsenic	60.5	B07ZH8	J
B07ZJ3A	Arsenic	72.6	B07ZJ3	J
B07ZJ8A	Arsenic	63.3	B07ZJ8	J
B07ZK3A	Arsenic	66.9	B07ZK3	J
B07ZM3A	Arsenic	65.2	B07ZM3	J
B07ZN3A	Arsenic	58.3	B07ZN3	J
B07ZP3A	Arsenic	72.0	B07ZP3	J
B07ZP8A	Arsenic	83.2	B07ZP8	J
B07ZQ3A	Arsenic	74.6	B07ZQ3	J
B07ZS3A	Arsenic	80.9	B07ZS3	J
B07ZV8A	Arsenic	73.5	B07ZV8	J
B07ZY5A	Arsenic	69.8	B07ZY5	J
B07ZM3A	Lead	81.8	B07ZM3	J
B07ZN3A	Lead	80.4	B07ZN3	J
B07ZP8A	Lead	76.1	B07ZP8	J
B07ZQ3A	Lead	82.8	B07ZQ3	J

ACCURACY DATA SUMMARY

SDG: B07ZG3	REVIEWER: KG	DATE: 5/20/93	PAGE 2 OF 3	
COMMENTS:				
SAMPLE ID	COMPOUND	% RECOVERY	SAMPLE(S) AFFECTED	QUALIFIER REQUIRED
B07ZS3A	Lead	82.7	B07ZS3	J
B07ZG3A	Selenium	60.8	B07ZG3	J
B07ZG8A	Selenium	55.5	B07ZG8	J
B07ZH8A	Selenium	80.3	B07ZH8	J
B07ZJ3A	Selenium	59.0	B07ZJ3	J
B07ZJ8A	Selenium	62.6	B07ZJ8	J
B07ZM3A	Selenium	57.2	B07ZM3	J
B07ZN3A	Selenium	57.2	B07ZN3	J
B07ZP3A	Selenium	34.5	B07ZP3	J
B07ZP8A	Selenium	66.0	B07ZP8	J
B07ZQ3A	Selenium	42.9	B07ZQ3	J
B07ZS3A	Selenium	57.2	B07ZS3	J
B07ZT3A	Selenium	67.8	B07ZT3	J
B07ZT8A	Selenium	74.9	B07ZT8	J
B07ZV8A	Selenium	60.7	B07ZV8	J
B07ZY5A	Selenium	50.2	B07ZY5	J
B07ZK3A	Selenium	0.0	B07ZK3	R

ACCURACY DATA SUMMARY

SDG: B07ZG3	REVIEWER: KG	DATE: 5/20/93	PAGE 3 OF 3	
COMMENTS:				
SAMPLE ID	COMPOUND	% RECOVERY	SAMPLE(S) AFFECTED	QUALIFIER REQUIRED
B07ZG3A	Thallium	76.0	B07ZG3	J
B07ZG8A	Thallium	76.7	B07ZG8	J
B07ZH8A	Thallium	77.6	B07ZH8	J
B07ZJ3A	Thallium	84.0	B07ZJ3	J
B07ZJ8A	Thallium	83.2	B07ZJ8	J
B07ZK3A	Thallium	79.1	B07ZK3	J
B07ZM3A	Thallium	69.8	B07ZM3	J
B07ZN3A	Thallium	73.2	B07ZN3	J
B07ZP3A	Thallium	71.8	B07ZP3	J
B07ZP8A	Thallium	71.8	B07ZP8	J
B07ZQ3A	Thallium	63.0	B07ZQ3	J
B07ZS3A	Thallium	68.7	B07ZS3	J
B07ZT3A	Thallium	79.5	B07ZT3	J
B07ZT8A	Thallium	79.5	B07ZT8	J
B07ZV8A	Thallium	83.4	B07ZV8	J
B07ZY5A	Thallium	75.2	B07ZY5	J

PRECISION DATA SUMMARY

SDG: B07ZG3	REVIEWER: LM	DATE: 5/26/93	PAGE 1 OF 1		
COMMENTS:					
COMPOUND	SAMPLE ID:	SAMPLE ID:	RPD	SAMPLES AFFECTED	QUALIFIER
Chromium	B07ZY4	B07ZY5	18.2	B07ZY4, B07ZY5	J

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DATA QUALIFICATION SUMMARY

SDG: B07ZG3	REVIEWER: KG	DATE: 5/20/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Aluminum	U	B07ZG8, B07ZN3, B07ZP3, B07ZQ3, B07ZT8, B07ZY5	Lab blank
Barium	U	B07ZP3, B07ZP8, B07ZQ3, B07ZS3, B07ZT3, B07ZT8, B07ZY5	Lab blank
Cadmium	None	None	Lab blank
Calcium	None	None	Lab blank
Iron	U	B07ZG8, B07ZJ8, B07ZM3, B07ZN3, B07ZP3, B07ZP8, B07ZT3, B07ZY5	Lab blank
Magnesium	None	None	Lab blank
Manganese	U	B07ZQ3	Lab blank
Selenium	None	None	Lab blank
Zinc	U	B07ZQ3	Lab blank
Selenium	J	All	Matrix spike
Arsenic	J	B07ZH8, B07ZJ3, B07ZJ8, B07ZK3, B07ZM3, B07ZN3, B07ZP3, B07ZP8, B07ZQ3, B07ZS3, B07ZV8, B07ZY5	GFAA analytical spike
Lead	J	B07ZM3, B07ZN3, B07ZP8, B07ZQ3, B07ZS3	GFAA analytical spike
Selenium	J	All except B07ZK3	GFAA analytical spike
Selenium	R	B07ZK3	GFAA analytical spike
Thallium	J	All	GFAA analytical spike
Chromium	J	B07ZY5	Total vs. Filtered RPD out
Selenium	J	B07ZN3	CV > 20%

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																						
Laboratory: TMA																						
Case	SDG: B07ZH2																					
Sample Number		B07ZH2		B07ZM7		B07ZR2																
Location		199-B3-1		199-B5-1		699-65-72																
Remarks		NV		NV		NV																
Sample Date		01/15/93		01/15/93		01/14/93																
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	29.7		25.8		46.8															
Antimony	60	19.0	U	19.0	U	19.0	U														
Arsenic	10	3.9	U	3.9	U	3.9	U														
Barium	200	29.9		24.9		18.3															
Beryllium	5	0.90	U	0.90	U	0.90	U														
Cadmium	5	1.4	U	1.4	U	2.4															
Calcium	5000	45600		40800		35900															
Chromium	10	12.2		16.0		8.4															
Cobalt	50	3.2	U	3.2	U	3.6															
Copper	25	4.9	U	4.9	U	4.9	U														
Iron	100	47.6		64.2		90.2															
Lead	3	2.0		1.3		2.6															
Magnesium	5000	8240		8370		12500															
Manganese	15	3.2		3.2		3.5															
Mercury	0.2	0.10	U	0.10	U	0.10	U														
Nickel	40	5.4	U	5.4	U	5.4	U														
Potassium	5000	2100		5270		7990															
Selenium	5	3.1	U	15.5	U	15.5	U														
Silver	10	4.6	U	4.6	U	4.6	U														
Sodium	5000	11100		10300		26400															
Thallium	10	2.6	U	2.6	U	2.6	U														
Vanadium	50	4.0	U	8.9		17.8															
Zinc	20	13.9		6.7		20.1															
Cyanide	10	10.0	U	10.0	U	10.0	U														

NV = Not Validated

9713514.2102
WHC-SD-EN-TI-168, Rev. 1

INORGANIC ANALYSIS, WATER MATRIX, (μg/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZH2																				
Sample Number		B07ZH3		B07ZM8		B07ZR3															
Location		199-B3-1		199-B5-1		699-65-72															
Remarks		NV, FIL		NV, FIL		NV, FIL															
Sample Date		01/15/93		01/15/93		01/14/93															
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	28.9		27.0	U	27.0	U														
Antimony	60	18.4	U	18.4	U	18.4	U														
Arsenic	10	2.6	U	2.6	U	4.3															
Barium	200	28.9		30.2		18.6															
Beryllium	5	0.50	U	0.50	U	0.50	U														
Cadmium	5	1.6	U	1.6	U	1.6	U														
Calcium	5000	48300		45000		33700															
Chromium	10	9.4		18.3		8.8															
Cobalt	50	2.5	U	2.5	U	3.1															
Copper	25	2.9	U	2.9	U	2.9	U														
Iron	100	10.8		8.1		6.5	U														
Lead	3	2.3		1.9		2.1															
Magnesium	5000	7950		8310		10100															
Manganese	15	1.0	U	3.0		1.0	U														
Mercury	0.2	0.10	U	0.10	U	0.10	U														
Nickel	40	3.0	U	3.0	U	3.0	U														
Potassium	5000	1920		4970		6080															
Selenium	5	3.1	U	3.1	U	3.1	U														
Silver	10	3.9	U	3.9	U	3.9	U														
Sodium	5000	10600		10300		21300															
Thallium	10	1.9	U	1.9	U	1.9	U														
Vanadium	50	2.5	U	6.8		19.0															
Zinc	20	4.7	U	4.7	U	4.7	U														
Cyanide	10	N/A		N/A		N/A															

NV = Not Validated, FIL = Filtered

9713514.2497 WHC-SD-EN-TI-168, Rev. 1

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZK7																				
Sample Number		B07ZK7		B07ZL2																	
Location		199-B4-5		199-B4-7																	
Remarks		NV		NV																	
Sample Date		01/26/93		01/26/93																	
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	27.0	U	32.1																	
Antimony	60	18.4	U	18.4	U																
Arsenic	10	3.7	U	3.7	U																
Barium	200	17.5		20.0																	
Beryllium	5	0.50	U	0.50	U																
Cadmium	5	1.6	U	1.6	U																
Calcium	5000	51100		51900																	
Chromium	10	41.1		55.4																	
Cobalt	50	2.5	U	2.5	U																
Copper	25	4.5		5.2																	
Iron	100	126		210																	
Lead	3	2.0		2.5																	
Magnesium	5000	9200		8120																	
Manganese	15	2.5		4.8																	
Mercury	0.2	0.10	U	0.10	U																
Nickel	40	15.9		24.1																	
Potassium	5000	5640		5300																	
Selenium	5	3.3	U	3.3	U																
Silver	10	3.9	U	3.9	U																
Sodium	5000	12100		11800																	
Thallium	10	2.6	U	2.6	U																
Vanadium	50	7.1		6.8																	
Zinc	20	4.7	U	4.7	U																
Cyanide	10	10.0	U	10.0	U																

NV = Not Validated

9713514.2409 WHC-SD-EN-TI-168, Rev. 1

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																						
Laboratory: TMA																						
Case	SDG: B07ZK8																					
Sample Number		B07ZK8		B07ZL3																		
Location		199-B4-5		199-B4-7																		
Remarks		NV, FIL		NV, FIL																		
Sample Date		01/26/93		01/26/93																		
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	
Aluminum	200	27.0	U	27.0	U																	
Antimony	60	18.4	U	18.4	U																	
Arsenic	10	4.0		4.7																		
Barium	200	16.9		19.4																		
Beryllium	5	0.50	U	0.50	U																	
Cadmium	5	1.6	U	2.1																		
Calcium	5000	48900		50400																		
Chromium	10	14.4		13.7																		
Cobalt	50	2.5	U	2.5	U																	
Copper	25	2.9	U	2.9	U																	
Iron	100	7.0		12.5																		
Lead	3	2.2		2.0																		
Magnesium	5000	8720		7870																		
Manganese	15	1.1		1.9																		
Mercury	0.2	0.10	U	0.10	U																	
Nickel	40	4.5		5.1																		
Potassium	5000	5320		4990																		
Selenium	5	21.3		4.9																		
Silver	10	3.9	U	3.9	U																	
Sodium	5000	11500		11300																		
Thallium	10	1.9	U	1.9	U																	
Vanadium	50	6.7		6.7																		
Zinc	20	4.7	U	4.7	U																	
Cyanide	10	N/A		N/A																		

NV = Not Validated, FIL = Filtered

9713514.2445 WHS-SD-EN-TI-168, Rev. 1

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZL7																				
Sample Number		B07ZL7		B07ZQ7		B07ZS7		B07ZV2													
Location		199-B4-8		699-63-90		699-71-77		199-B4-8													
Remarks		NV		NV		NV		NV, DUP													
Sample Date		01/17/93		01/16/93		01/18/93		01/17/93													
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	21.2	U	21.2	U	21.2	U	21.2	U												
Antimony	60	19.0	U	19.0	U	19.0	U	19.0	U												
Arsenic	10	3.9	U	3.9	U	3.9	U	3.9	U												
Barium	200	25.7		11.2		59.5		24.1													
Beryllium	5	0.90	U	0.90	U	0.90	U	0.90	U												
Cadmium	5	1.4	U	1.6		1.4	U	1.4	U												
Calcium	5000	49900		34200		34500		50000													
Chromium	10	10.7		4.2	U	4.2	U	13.4													
Cobalt	50	3.2	U	3.2	U	3.2	U	3.2	U												
Copper	25	4.9	U	4.9	U	4.9	U	4.9	U												
Iron	100	17.0		26.8		85.0		26.8													
Lead	3	1.5		1.8		4.4		1.2	U												
Magnesium	5000	8060		12300		10400		8110													
Manganese	15	1.7	U	1.7	U	1.7	U	1.7	U												
Mercury	0.2	0.10	U	0.10	U	0.10	U	0.10	U												
Nickel	40	5.4	U	5.9		5.4	U	5.4	U												
Potassium	5000	5730		4300		5020		5600													
Selenium	5	3.1	U	3.1	U	3.1	U	15.5	U												
Silver	10	4.6	U	4.6	U	4.6	U	4.6	U												
Sodium	5000	11800		11000		16100		11700													
Thallium	10	2.6	U	2.6	U	2.6	U	2.6	U												
Vanadium	50	9.8		25.9		19.6		9.2													
Zinc	20	15.7		3.0		6.1		11.9													
Cyanide	10	10.0	U	10.0	U	10.0	U	10.0	U												

NV = Not Validated, DUP = Duplicate

9713514.2496 WHC-SD-EN-TI-168, Rev. 1

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZL8																				
Sample Number		B07ZL8		B07ZQ8		B07ZS8		B07ZV3													
Location		199-B4-8		699-63-90		699-71-77		199-B4-8													
Remarks		NV, FIL		NV, FIL		NV, FIL		NV, FIL, DUP													
Sample Date		01/17/93		01/16/93		01/18/93		01/17/93													
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	27.0	U	27.0		27.0	U	27.0	U												
Antimony	60	18.4	U	18.4	U	18.4	U	18.4	U												
Arsenic	10	3.9	U	3.9	U	3.9	U	3.9	U												
Barium	200	25.5		13.6		62.3		34.4													
Beryllium	5	0.50	U	0.50	U	0.50	U	0.50	U												
Cadmium	5	1.6	U	1.6	U	1.6	U	1.6	U												
Calcium	5000	49500		35200		36100		68600													
Chromium	10	8.2		2.7	U	6.0		14.9													
Cobalt	50	2.5	U	2.5	U	2.5	U	2.5	U												
Copper	25	2.9	U	2.9	U	2.9	U	2.9	U												
Iron	100	6.5	U	8.0		6.5	U	862													
Lead	3	1.6		3.5		1.5	U	1.5	U												
Magnesium	5000	7770		12400		10600		10700													
Manganese	15	1.0	U	1.0	U	1.0	U	2.9													
Mercury	0.2	0.10	U	0.10	U	0.10	U	0.10	U												
Nickel	40	3.0	U	3.0	U	3.0	U	3.0	U												
Potassium	5000	5620		4530		5180		7770													
Selenium	5	3.1	U	3.1	U	3.1	U	3.1	U												
Silver	10	3.9	U	3.9	U	3.9	U	3.9	U												
Sodium	5000	11600		11300		16800		16100													
Thallium	10	1.9	U	1.9	U	1.9	U	1.9	U												
Vanadium	50	7.9		22.7		23.7		8.3													
Zinc	20	13.1		6.9		4.7	U	197													
Cyanide	10	N/A		N/A		N/A		N/A													

NV = Not Validated, DUP = Duplicate, FIL = Filtered

9713514.2497 WHC-SD-EN-TI-168, Rev. 1

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZN7																				
Sample Number		B07ZN7		B07ZX2		B07ZX7															
Location		199-B8-6		EB-1		EB-2															
Remarks		NV		NV		NV															
Sample Date		01/23/93		01/28/93		01/28/93															
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	27.0	U	27.0	U	27.0	U														
Antimony	60	18.4	U	18.4	U	18.4	U														
Arsenic	10	2.0	U	2.0	U	2.0	U														
Barium	200	12.0		1.0	U	1.0	U														
Beryllium	5	0.50	U	0.50	U	0.50	U														
Cadmium	5	1.6	U	1.6	U	1.6	U														
Calcium	5000	33800		17.2	U	17.2	U														
Chromium	10	12.6		2.7	U	2.7	U														
Cobalt	50	2.5	U	2.5	U	2.5	U														
Copper	25	2.9	U	2.9	U	2.9	U														
Iron	100	29.3		25.4		8.2															
Lead	3	1.3		2.5		1.3															
Magnesium	5000	8540		34.9		24.6	U														
Manganese	15	1.3		1.3		1.0	U														
Mercury	0.2	0.10	U	0.10	U	0.10	U														
Nickel	40	3.0	U	3.0	U	3.0	U														
Potassium	5000	5220		116	U	116	U														
Selenium	5	3.8	U	3.8	U	3.8	U														
Silver	10	3.9	U	3.9	U	3.9	U														
Sodium	5000	9600		42.1	U	42.1	U														
Thallium	10	2.6	U	2.6	U	2.6	U														
Vanadium	50	11.2		2.5	U	2.5	U														
Zinc	20	4.7	U	4.7	U	4.7	U														
Cyanide	10	10.0	U	10.0	U	10.0	U														

NV = Not Validated

9713514.2498

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZN8																				
Sample Number		B07ZN8		B07ZX3		B07ZX8															
Location		199-B8-6		EB-1		EB-2															
Remarks		NV, FIL		NV, FIL		NV, FIL															
Sample Date		01/23/93		01/28/93		01/28/93															
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	27.0	U	34.5		27.0	U														
Antimony	60	18.4	U	18.4	U	18.4	U														
Arsenic	10	3.7	U	3.7	U	3.7	U														
Barium	200	12.5		1.2		1.0	U														
Beryllium	5	0.50	U	0.50	U	0.50	U														
Cadmium	5	1.6	U	2.4		1.6	U														
Calcium	5000	33200		17.2	U	17.2	U														
Chromium	10	11.8		2.7	U	2.7	U														
Cobalt	50	2.5	U	3.1		2.5	U														
Copper	25	2.9	U	2.9	U	2.9	U														
Iron	100	16.9		23.6		6.5	U														
Lead	3	1.2	U	2.7		1.4															
Magnesium	5000	8390		36.9		24.6	U														
Manganese	15	1.0	U	1.0	U	1.0	U														
Mercury	0.2	0.10	U	0.10	U	0.10	U														
Nickel	40	3.0	U	3.0	U	3.0	U														
Potassium	5000	5160		116	U	116	U														
Selenium	5	16.5	U	3.3	U	3.3	U														
Silver	10	3.9	U	3.9	U	3.9	U														
Sodium	5000	9500		67.0		51.2															
Thallium	10	1.5	U	1.5	U	1.5	U														
Vanadium	50	9.0		2.5	U	2.5	U														
Zinc	20	4.7	U	4.7	U	4.7	U														
Cyanide	10	N/A		N/A		N/A															

NV = Not Validated, FIL = Filtered

9713514.2499

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZR7																				
Sample Number		B07ZR7																			
Location		699-65-83																			
Remarks		NV																			
Sample Date		01/30/93																			
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	29.3																			
Antimony	60	18.4	U																		
Arsenic	10	3.9	U																		
Barium	200	8.4																			
Beryllium	5	0.50	U																		
Cadmium	5	1.6	U																		
Calcium	5000	31900																			
Chromium	10	22.9																			
Cobalt	50	2.5	U																		
Copper	25	6.8																			
Iron	100	79.4																			
Lead	3	1.8																			
Magnesium	5000	9710																			
Manganese	15	1.0																			
Mercury	0.2	0.10	U																		
Nickel	40	3.9																			
Potassium	5000	6720																			
Selenium	5	3.1	U																		
Silver	10	3.9	U																		
Sodium	5000	14600																			
Thallium	10	2.6	U																		
Vanadium	50	26.8																			
Zinc	20	4.7	U																		
Cyanide	10	10.0	U																		

NV = Not Validated

9713514.2500

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: TMA																					
Case	SDG: B07ZR8																				
Sample Number		B07ZR8																			
Location		699-65-83																			
Remarks		NV, FIL																			
Sample Date		01/30/93																			
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	27.0	U																		
Antimony	60	18.4	U																		
Arsenic	10	4.9																			
Barium	200	9.5																			
Beryllium	5	0.50	U																		
Cadmium	5	1.6	U																		
Calcium	5000	32400																			
Chromium	10	20.9																			
Cobalt	50	2.5	U																		
Copper	25	4.2																			
Iron	100	14.2																			
Lead	3	2.1																			
Magnesium	5000	9830																			
Manganese	15	1.3																			
Mercury	0.2	0.10	U																		
Nickel	40	3.0	U																		
Potassium	5000	6730																			
Selenium	5	16.5	U																		
Silver	10	3.9	U																		
Sodium	5000	14800																			
Thallium	10	1.9	U																		
Vanadium	50	27.4																			
Zinc	20	4.7	U																		
Cyanide	10	N/A																			

NV = Not Validated, FIL = Filtered

9713514.2501
WHC-SD-EN-TI-168, Rev. 1

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																					
Laboratory: Roy F. Weston																					
Case	SDG:	B07ZW2																			
Sample Number		B07ZW2		B07ZW3																	
Location		199-B4-8		199-B4-8																	
Remarks		SPL,NV		SPL,FIL,NV																	
Sample Date		1/17/93		1/17/93																	
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	64.0	U	64.0	U																
Antimony	60	57.0	U	57.0	U																
Arsenic	10	2.0	U	2.3																	
Barium	200	29.1		26.3																	
Beryllium	5	1.0	U	1.0	U																
Cadmium	5	4.0	U	4.0	U																
Calcium	5000	50000		49500																	
Chromium	10	10.3		7.0	U																
Cobalt	50	8.0	U	8.0	U																
Copper	25	9.0	U	9.0	U																
Iron	100	34.1		10.0	U																
Lead	3	2.7		2.0	U																
Magnesium	5000	7970		7840																	
Manganese	15	2.4		2.0	U																
Mercury	0.2	.10	U	.10	U																
Nickel	40	19.0	U	19.0	U																
Potassium	5000	6590		5100																	
Selenium	5	2.2		2.0																	
Silver	10	7.0	U	7.0	U																
Sodium	5000	12000		11700																	
Thallium	10	2.0	U	2.0	U																
Vanadium	50	14.3		8.3																	
Zinc	20	15.6		8.0	U																
Cyanide	10	20.0	U	N/A																	

SPL = Split, FIL = Filtered, NV = Not Validated, N/A = Not Applicable

9713514.2502

9713514.2503

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																							
Laboratory: Roy F. Weston																							
Case	SDG: B07ZW7																						
Sample Number		B07ZW7																					
Location		199-B4-4																					
Remarks		NV, Split																					
Sample Date		01/24/93																					
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	200	64.0	U																				
Antimony	60	57.0	U																				
Arsenic	10	2.0	U																				
Barium	200	24.7																					
Beryllium	5	1.0	U																				
Cadmium	5	4.0	U																				
Calcium	5000	53400																					
Chromium	10	11.1																					
Cobalt	50	8.0	U																				
Copper	25	9.0	U																				
Iron	100	21.4																					
Lead	3	2.0	U																				
Magnesium	5000	8250																					
Manganese	15	2.0	U																				
Mercury	0.2	0.10	U																				
Nickel	40	19.0	U																				
Potassium	5000	4380																					
Selenium	5	2.2																					
Silver	10	7.0	U																				
Sodium	5000	12000																					
Thallium	10	2.0	U																				
Vanadium	50	9.9																					
Zinc	20	8.0	U																				
Cyanide	10	20.0	U																				

NV = Not Validated

INORGANIC ANALYSIS, WATER MATRIX, (µg/L)

Project: WESTINGHOUSE-HANFORD																						
Laboratory: Roy F. Weston																						
Case	SDG: B07ZW8																					
Sample Number		B07ZW8																				
Location		199-B4-4																				
Remarks		NV, Split, FIL																				
Sample Date		01/24/93																				
Inorganic Analytes	CRQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	
Aluminum	200	64.0	U																			
Antimony	60	57.0	U																			
Arsenic	10	2.0	U																			
Barium	200	26.0																				
Beryllium	5	1.0	U																			
Cadmium	5	4.0	U																			
Calcium	5000	55400																				
Chromium	10	11.1																				
Cobalt	50	8.0	U																			
Copper	25	9.0	U																			
Iron	100	31.7																				
Lead	3	2.0	U																			
Magnesium	5000	8600																				
Manganese	15	2.0	U																			
Mercury	0.2	0.10	U																			
Nickel	40	19.0	U																			
Potassium	5000	4900																				
Selenium	5	2.0																				
Silver	10	7.0	U																			
Sodium	5000	12400																				
Thallium	10	2.0	U																			
Vanadium	50	12.8																				
Zinc	20	8.0	U																			
Cyanide	10	N/A																				

NV = Not Validated, FIL = Filtered

9713514.2504

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	WET CHEMISTRY
199-B2-12	B07ZG2	W	01/19/93	V	6-5, 6-8
199-B2-13	B07ZG7	W	01/23/93	V	6-8, 6-10
199-B2-13	B07ZH0	W	01/23/93	V	6-14
199-B2-13	B07ZH1	W	01/23/93	V	6-18
199-B3-1	B07ZH2	W	01/15/93	NV	6-21
199-B3-46	B07ZH7	W	01/21/93	V	6-8, 6-22
199-B3-47	B07ZJ2	W	01/19/93	V	6-5, 6-8
199-B4-1	B07ZJ7	W	01/21/93	V	6-8, 6-22
199-B4-4	B07ZK2	W	01/24/93	V	6-8, 6-10
199-B4-4	B07ZK5	W	01/24/93	V	6-14
199-B4-4	B07ZK6	W	01/24/93	V	6-18
199-B4-5	B07ZK7	W	01/26/93	NV	6-26
199-B4-5	B07ZL0	W	01/26/93	V	6-14
199-B4-5	B07ZL1	W	01/26/93	V	6-18
199-B4-7	B07ZL2	W	01/26/93	NV	6-26
199-B4-7	B07ZL5	W	01/26/93	V	6-14
199-B4-7	B072L6	W	01/26/93	V	6-18
199-B4-8	B07ZL7	W	01/17/93	NV	6-27
199-B4-9	B07ZM2	W	01/24/93	V	6-8, 6-28
199-B4-9	B07ZM5	W	01/24/93	V	6-14
199-B4-9	B07ZM6	W	01/24/93	V	6-18
199-B5-1	B07ZM7	W	01/15/93	NV	6-21
199-B5-2	B07ZN2	W	01/23/93	V	6-8, 6-28
199-B5-2	B07ZN5	W	01/23/93	V	6-14
199-B5-2	B07ZN6	W	01/23/93	V	6-18
199-B8-6	B07ZN7	W	01/29/93	NV	6-33, 6-35

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	WET CHEMISTRY
199-B8-6	B07ZP0	W	01/23/93	V	6-14
199-B8-6	B07ZP1B	W	01/23/93	V	6-18
199-B9-1	B07ZP2	W	01/22/93	V	6-8, 6-28
199-B9-1	B07ZP5	W	01/22/93	V	6-14
199-B9-1	B07ZP6	W	01/22/93	V	6-18
199-B9-2	B07ZP7	W	01/23/93	V	6-9, 6-10
199-B9-2	B07ZQ0	W	01/23/93	V	6-14
199-B9-2	B07ZQ1	W	01/23/93	V	6-18
199-B9-3	B07ZQ2	W	01/22/93	V	6-9, 6-28
199-B9-3	B07ZQ5	W	01/22/93	V	6-15
199-B9-3	B07ZQ6	W	01/22/93	V	6-19
699-63-90	B07ZQ7	W	01/16/93	NV	6-27
699-65-72	B07ZR2	W	01/14/93	NV	6-21
699-65-83	B07ZR7	W	01/30/93	NV	6-34
699-65-83	B07ZS0	W	01/30/93	V	6-15
699-65-83	B07ZS1	W	01/30/93	V	6-19
699-66-64	B07ZS2	W	01/21/93	V	6-9, 6-22
699-71-77	B07ZS7	W	01/18/93	NV	6-27
699-72-73	B07ZT2	W	01/22/93	V	6-9, 6-28
699-72-73	B07ZT5	W	01/22/93	NV	6-36
699-72-73	B07ZT5	W	01/22/93	V	6-15
699-72-73	B07ZT6	W	01/22/93	V	6-19
199-72-92	B07ZT7	W	01/22/93	V	6-9, 6-28
699-72-92	B07ZV0	W	01/22/93	V	6-15
699-72-92	B07ZV1	W	01/22/93	V	6-19
199-B4-8	B07ZV2	W	01/17/93	NV	6-27

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	WET CHEMISTRY
199-B4-4	B07ZV7	W	01/18/93	V	6-9, 6-10
199-B4-4	B07ZW0	W	01/24/93	V	6-15
199-B4-4	B07ZW1	W	01/24/93	V	6-19
199-B4-8	B07ZW2	W	01/17/93	NV	6-37
199-B4-4	B07ZW7	W	01/24/93	NV	6-38
199-B4-4	B07ZX0	W	01/24/93	V	6-19
EB-1	B07ZX2	W	01/28/93	NV	6-33, 6-35
EB-1	B07ZX5	W	01/28/93	V	6-15
EB-1	B07ZX6	W	01/28/93	V	6-19
EB-2	B07ZX7	W	01/28/93	NV	6-33
EB-2	B07ZY0	W	01/28/93	V	6-15
EB-2	B07ZY1	W	01/28/93	V	6-19
699-67-86	B07ZY4	W	01/19/93	V	6-5, 6-9

6.0 WET CHEMISTRY DATA VALIDATION

6.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were submitted for validation and checked for completeness:

B07ZG2	B07ZG7	B07ZH0
B07ZH1	B07ZH7	B07ZM2

6.2 HOLDING TIMES

Analytical holding times for nitrate-nitrite, fluoride, chloride, phosphate, sulfate, pH and conductivity, TDS, TOC, TOX, COD, sulfide, ammonia-nitrogen and alkalinity were assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirements are as follows: twenty-eight days for nitrate-nitrite, fluoride, chloride, sulfate, ammonia-nitrogen, TOC and COD samples, 14 days for alkalinity, seven days for TDS, TOX and sulfide samples, 48 hours for nitrate, nitrite, phosphate, and conductivity samples, and 72 hours for pH samples under the EPA SW846 protocol.

Holding times were exceeded for ammonia-nitrogen in SDG No. B07ZG2. All associated sample results were qualified as estimates and flagged "J".

Holding times were exceeded for pH in SDG Nos. B07ZG2, B07ZG7, B07ZH7 and B07ZM2. All associated sample results were qualified as estimates and flagged "J".

Holding times were exceeded for sulfide in SDG Nos. B07ZG7, B07ZH7 and B07ZM2. All associated sample results were qualified as estimates and flagged "J".

Holding times were exceeded for TDS in SDG Nos. B07ZG7 and B07ZH7 and for sample numbers B07ZM2, B07ZN2, B07ZP2, B07ZT2 and B07ZT8 in SDG No. B07ZM2. All associated sample results were qualified as estimates and flagged "J".

Holding times were exceeded for TOX for sample numbers B07ZH0, B07ZK5, B07ZL0, B07ZL5, B07ZM5, B07ZN5, B07ZP5, B07ZQ0, B07ZQ5, B07ZS0, B07ZV0, B07ZW0, B07ZX5 and B07ZY0 in SDG No. B07ZH0. However, all associated results were rejected and

flagged "R" due to a lack of instrument calibration data. Therefore, no additional qualifiers are required.

Holding times were grossly exceeded for phosphate in SDG Nos. B07ZG2, B07ZG7, B07ZH7 and B07ZM2. All associated sample results were rejected and flagged "R".

Holding times were grossly exceeded for TDS for sample number B07ZQ2 in SDG No. B07ZM2. Result was rejected and flagged "R".

Holding times for all other analytes met QC requirements.

6.3 CALIBRATIONS

Instrument calibration data were not provided for TOX analysis of all samples in SDG No. B07ZH0. As per Westinghouse-Hanford protocol, all associated sample results were rejected and flagged "R".

All other instruments were calibrated using the proper standards and procedures.

6.3.1 Initial Calibration

The following calibration procedures must be conducted:

- At least a blank and three standards were used to establish the ion chromatography, ion selective electrode, spectrophotometer, TOC analyzer and TOX analyzer calibrations prior to sample analysis and the correlation was $\geq$0.995.
- The titrant normality for alkalinity analysis was checked.

All initial calibration results were acceptable, however, ICV summary forms were not submitted.

6.3.2 Continuing Calibration Verification

All CCV standards must be analyzed with the required frequency or every 20 samples. The percent recoveries must fall within the 90-110% acceptance windows.

Continuing calibration verification (CCV) and continuing calibration blank (CCB) information and raw data were not provided for chloride, fluoride, phosphate and sulfate analysis in SDG Nos. B07ZG2, B07ZG7, B07ZH7 and B07ZM2. All associated results have been qualified as estimates and flagged "J".

CCVs and CCBs were not analyzed at the proper frequency for TOC analysis of samples in SDG No. B07ZH0 and hydrazine analysis of samples in SDG No. B07ZH1. All associated sample results have been qualified as estimates and flagged "J".

All other continuing calibration results were acceptable, however, CCV summary forms were not submitted.

6.4 BLANKS

One laboratory preparation blank is analyzed at a frequency of one every 20 samples. All blank results must fall below the CRQL and if not, all associated data <5 times the amount found in the blank is qualified as non-detected "U".

All laboratory blank results were acceptable.

6.5 ACCURACY

6.5.1 Matrix Spike Recovery

Matrix spike analyses are used to assess the analytical accuracy of the reported data and the effect of the matrix on the ability to accurately quantify sample concentrations.

Matrix spike recoveries fell outside the quality control requirements for phosphate in SDG Nos. B07ZG7, B07ZH7 and B07ZM2. However, all associated results had been previously rejected due to grossly exceeded holding times so no additional qualifiers were required.

All other matrix spike results were acceptable.

6.5.2 Laboratory Control Sample Recovery

The LCS monitors the overall performance of the analysis, including the sample preparation. An LCS should be prepared (e.g., digested or distilled) and analyzed with every group of samples which have been prepared together. The performance criteria for aqueous LCS percent recovery is 80 to 120 percent. The performance criteria for solid LCS samples are established through interlaboratory studies coordinated by a certifying agency (e.g., EPA or an independent commercial supplier).

All LCS results were found to be acceptable.

6.6 PRECISION

Analytical duplicate sample analyses are used to measure laboratory precision and sample homogeneity. Field duplicate analyses are used to measure both the laboratory and the field sampling procedure precision.

All duplicate analyses results were acceptable for this report.

6.7 ANALYTE QUANTITATION AND DETECTION LIMITS

Sample results and reported detection limits were recalculated to ensure that the reported results were accurate. Raw data were examined for anomalies, transcription errors, and reduction errors. In addition, the reviewer verified that the results fell within the linear range of the instrument.

6.8 OVERALL ASSESSMENT AND SUMMARY

A review of instrument continuing calibration information and QC data indicate that instrument performance was adequate for these analyses. The holding times for ammonia-nitrogen, pH, sulfide, TOX and TDS exceeded the requirements for many samples. Results were qualified as estimates and flagged "J". The holding times for all phosphate samples and one TDS sample were grossly exceeded and the associated results were rejected and flagged "R". Rejected data are unusable for all purposes.

Insufficient CCV/CCB data were provided for fluoride, chloride and sulfate in SDG Nos. B07ZG2, B07ZG7, B07ZH7 and B07ZM2, and for hydrazine in SDG No. B07ZH1 and for TOC in SDG No. B07ZH0. All associated results were qualified as estimates and flagged "J".

Daily instrument calibration data were not provided for TOX analysis in SDG No. B07ZH0. All associated results were rejected and flagged "R".

According to Westinghouse-Hanford Chains of Custody and non-conformance reports, TOX analysis of B07ZT5 in SDG No. B07ZH0 was canceled, and due to an error in sample identification, sample number B07ZP1 in SDG No. B07ZH1 was changed to B07ZP1B.

Aside from the lack of raw data and the QC problems mentioned above, all other results are usable for all purposes.

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZG2																		
Sample Number		B07ZG2		B07ZJ2		B07ZY4													
Location		199-B2-12		199-B3-47		699-67-86													
Remarks																			
Sample Date		01/19/93		01/19/93		01/19/93													
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Fluoride	300.0	0.5	J	0.1	UJ	0.4	J												
Chloride	300.0	1.6	J	9.9	J	5.1	J												
Sulfate	300.0	10.0	J	53.0	J	33.0	J												
Phosphate	300.0	0.4	R	0.4	R	0.4	R												
pH (pH units)	150.1	8.0	J	8.0	J	7.9	J												
Ammonia Nitrogen	350.3	0.05	UJ	0.05	UJ	0.05	UJ												
Alkalinity	120.1	124		97		123													
Total Dissolved Solid	160.1	179		224		218													
Sulfide	376.1	1.0	U	1.0	U	1.0	U												
COD	410.0	5.0	U	5.0	U	5.0	U												
Elect. Conductivity	120.1	287		376		320													
(umhos/cm)																			

9713514.2512

HOLDING TIME SUMMARY

SDG: B07ZG2	REVIEWER: KG			DATE: 5/21/93		PAGE 1 OF 1	
COMMENTS:							
FIELD SAMPLE ID	ANALYSIS TYPE	DATE SAMPLED	DATE PREPARED	DATE ANALYZED	PREP. HOLDING TIME, DAYS	ANALYSIS HOLDING TIME, DAYS	QUALIFIER
B07ZG2	Ammonia-Nitrogen	1/19/93		2/18/93		28	J
B07ZJ2	Ammonia-Nitrogen	1/19/93		2/18/93		28	J
B07ZY4	Ammonia-Nitrogen	1/19/93		2/18/93		28	J
B07ZG2	pH	1/19/93		1/25/93		72 hours	J
B07ZJ2	pH	1/19/93		1/25/93		72 hours	J
B07ZY4	pH	1/19/93		1/25/93		72 hours	J
B07ZG2	Phosphate	1/19/93		2/4/93		48 hours	R
B07ZJ2	Phosphate	1/19/93		2/4/93		48 hours	R
B07ZY4	Phosphate	1/19/93		2/4/93		48 hours	R

DATA QUALIFICATION SUMMARY

SDG: B07ZG2	REVIEWER: KG	DATE: 5/21/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Ammonia-Nitrogen	J	B07ZG2, B07ZJ2, B07ZY4	Holding times exceeded
pH	J	B07ZG2, B07ZJ2, B07ZY4	Holding times exceeded
Phosphate	R	B07ZG2, B07ZJ2, B07ZY4	Holding times grossly exceeded
Fluoride	J	B07ZG2, B07ZJ2, B07ZY4	Insufficient CCV/CCB data provided
Chloride	J	B07ZG2, B07ZJ2, B07ZY4	Insufficient CCV/CCB data provided
Phosphate	J	B07ZG2, B07ZJ2, B07ZY4	Insufficient CCV/CCB data provided
Sulfate	J	B07ZG2, B07ZJ2, B07ZY4	Insufficient CCV/CCB data provided

9713514.2515

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg N/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZG2																		
Sample Number		B07ZG2		B07ZG7		B07ZH7		B07ZJ2		B07ZJ7		B07ZK2		B07ZM2		B07ZN2		B07ZP2	
Location		199-B2-12		199-B2-13		199-B3-46		199-B3-47		199-B4-1		199-B4-4		199-B4-9		199-B5-2		199-B9-1	
Remarks																			
Sample Date		01/19/93		01/23/93		01/21/93		01/19/93		01/21/93		01/23/93		01/24/93		01/23/93		01/22/93	
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
N03N02	353.2	0.25	U	3.09		6.81		5.67		5.29		5.13		5.51		5.67		4.30	

9713514.2516

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg N/L)

Project: WESTINGHOUSE-HANFORD
Laboratory: TMA
Case SDG: B07ZG2

Sample Number		B07ZP7		B07ZQ2		B07ZS2		B07ZT2		B07ZT7		B07ZV7		B07ZY4					
Location		199-B9-2		199-B9-3		699-66-64		699-72-73		699-72-92		199-B4-4		699-67-86					
Remarks												Duplicate 2							
Sample Date		01/23/93		01/22/93		01/21/93		01/22/93		01/22/93		01/24/93		01/19/93					
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
N03N02	353.2	4.75		4.77		8.50		3.38		2.67		3.41		0.64					

9713514.2517

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZG7																		
Sample Number		B07ZG7		B07ZK2		B07ZP7		B07ZV7											
Location		199-B2-13		199-B4-4		199-B9-2		199-B4-4											
Remarks								Duplicate 2											
Sample Date		01/23/93		01/24/93		01/23/93		01/24/93											
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Fluoride	300.0	0.381	J	0.377	J	0.365	J	0.351	J										
Chloride	300.0	7.41	J	9.0	J	11.0	J	9.28	J										
Sulfate	300.0	41.2	J	46.8	J	53.2	J	46.3	J										
Phosphate	300.0	0.4	R	0.4	R	0.4	R	0.4	R										
pH (pH units)	150.1	7.8	J	8.0	J	7.8	J	8.0	J										
Ammonia Nitrogen	350.3	0.05	U	0.05	U	0.05	U	0.05	U										
Alkalinity	120.1	100		109		110		107											
Total Dissolved Solids	160.1	244	J	246	J	279	J	270	J										
Sulfide	376.1	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ										
COD	410.0	5.0	U	5.0	U	5.0	U	5.0	U										
Elect. Conductivity (umhos/cm)	120.1	326		373		397		390											

HOLDING TIME SUMMARY

SDG: B07ZG7	REVIEWER: KG			DATE: 5/21/93		PAGE 1 OF 1	
COMMENTS:							
FIELD SAMPLE ID	ANALYSIS TYPE	DATE SAMPLED	DATE PREPARED	DATE ANALYZED	PREP. HOLDING TIME, DAYS	ANALYSIS HOLDING TIME, DAYS	QUALIFIER
B07ZG7	pH	1/23/93		1/28/93		72 hours	J
B07ZK2	pH	1/24/93		1/28/93		72 hours	J
B07ZP7	pH	1/23/93		1/28/93		72 hours	J
B07ZV7	pH	1/24/93		1/28/93		72 hours	J
B07ZG7	TDS	1/23/93		2/10/93		7	J
B07ZK2	TDS	1/24/93		2/10/93		7	J
B07ZP7	TDS	1/23/93		2/10/93		7	J
B07ZV7	TDS	1/24/93		2/10/93		7	J
B07ZG7	Sulfide	1/23/93		2/12/93		7	J
B07ZK2	Sulfide	1/24/93		2/12/93		7	J
B07ZP7	Sulfide	1/23/93		2/12/93		7	J
B07ZV7	Sulfide	1/24/93		2/12/93		7	J
B07ZG7	Phosphate	1/23/93		2/18/93		48 hours	R
B07ZK2	Phosphate	1/24/93		2/18/93		48 hours	R
B07ZP7	Phospate	1/23/93		2/18/93		48 hours	R
B07ZV7	Phosphate	1/24/93		2/18/93		48 hours	R

ACCURACY DATA SUMMARY

SDG: B07ZG7	REVIEWER: KG	DATE: 5/21/93	PAGE 1 OF 1	
COMMENTS:				
SAMPLE ID	COMPOUND	% RECOVERY	SAMPLE(S) AFFECTED	QUALIFIER REQUIRED
B07ZQ2S	Phosphate	56.0%	B07ZG7, B07ZK2, B07ZP7, B07ZV7	J

DATA QUALIFICATION SUMMARY

SDG: B07ZG7	REVIEWER: KG	DATE: 5/21/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Chloride	J	B07ZG7, B07ZK2, B07ZP7, B07ZV7	Insufficient CCV/CCB data provided
Fluoride	J	B07ZG7, B07ZK2, B07ZP7, B07ZV7	Insufficient CCV/CCB data provided
Phosphate	J	B07ZG7, B07ZK2, B07ZP7, B07ZV7	Insufficient CCV/CCB data provided
Sulfate	J	B07ZG7, B07ZK2, B07ZP7, B07ZV7	Insufficient CCV/CCB data provided
pH	J	B07ZG7, B07ZK2, B07ZP7, B07ZV7	Holding time exceeded
TDS	J	B07ZG7, B07ZK2, B07ZP7, B07ZV7	Holding time exceeded
Sulfide	J	B07ZG7, B07ZK2, B07ZP7, B07ZV7	Holding time exceeded
Phosphate	R	B07ZG7, B07ZK2, B07ZP7, B07ZV7	Holding time grossly exceeded
Phosphate	J	B07ZG7, B07ZK2, B07ZP7, B07ZV7	Matrix spike

9713514.2521

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: Roy F. Weston																			
Case	SDG:	B07ZH0																	
Sample Number		B07ZH0		B07ZK5		B07ZL0		B07ZL5		B07ZM5		B07ZN5		B07ZP0		B07ZP5		B07ZQ0	
Location		199-B2-13		199-B4-4		199-B4-5		199-B4-7		199-B4-9		199-B5-2		199-B8-6		199-B9-1		199-B9-2	
Remarks																			
Sample Date		1/23/93		1/24/93		1/26/93		1/26/93		1/24/93		1/23/93		1/29/93		1/22/93		1/23/93	
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
TOC		0.50	UJ	0.50	UJ	1.0	UJ	0.50	UJ	1.2	J	0.50	UJ	0.50	UJ	0.71	J	0.50	UJ
TOX		5.0	R	5.0	R	5.0	R	5.0	R	20.0	R	20.0	R	5.0	R	5.0	R	7.6	R

EB = Equipment Blank, NA = Not Analyzed

9713614.2522

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: Roy F. Weston																			
Case	SDG:	B07ZH0																	
Sample Number		B07ZQ5		B07ZS0		B07ZT5		B07ZV0		B07ZW0		B07ZX5		B07ZY0					
Location		199-B9-3		699-65-83		699-72-73		699-72-92		199-B4-4		EB1		EB2					
Remarks										DUPLICATE		EB		EB					
Sample Date		1/22/93		1/30/93		1/22/93		1/22/93		1/24/93		1/28/93		1/28/93					
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
TOC		0.71	J	0.50	UJ	0.50	UJ	0.50	UJ	0.50	UJ	0.86	J	0.50	UJ				
TOX		5.0	R	5.0	R	NA		5.0	R	5.0	R	5.0	R	5.0	R				

EB = Equipment Blank, NA = Not Analyzed

HOLDING TIME SUMMARY

SDG: B07ZH0	REVIEWER: LM			DATE: 7/31/93		PAGE 1 OF 1	
COMMENTS:							
FIELD SAMPLE ID	ANALYSIS TYPE	DATE SAMPLED	DATE PREPARED	DATE ANALYZED	PREP. HOLDING TIME, DAYS	ANALYSIS HOLDING TIME, DAYS	QUALIFIER
B07ZH0	TOX	1/23/93		2/5/93		7	J
B07ZK5	TOX	1/24/93		2/8/93		7	J
B07ZL0	TOX	1/26/93		2/8/93		7	J
B07ZL5	TOX	1/26/93		2/8/93		7	J
B07ZM5	TOX	1/24/93		2/8/93		7	J
B07ZN5	TOX	1/23/93		2/5/93		7	J
B07ZP5	TOX	1/22/93		2/5/93		7	J
B07ZQ0	TOX	1/23/93		2/5/93		7	J
B07ZQ5	TOX	1/22/93		2/5/93		7	J
B07ZS0	TOX	1/30/93		2/8/93		7	J
B07ZV0	TOX	1/22/93		2/5/93		7	J
B07ZW0	TOX	1/24/93		2/8/93		7	J
B07ZX5	TOX	1/28/93		2/5/93		7	J
B07ZY0	TOX	1/28/93		2/8/93		7	J

DATA QUALIFICATION SUMMARY

SDG: B07ZH0	REVIEWER: LM	DATE: 7//31/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
TOC	J	All	Insufficient CCV/CCB analysis
TOX	J	B07ZH0, B07ZK5, B07ZL0, B07ZL5, B07ZM5, B07ZN5, B07ZP5, B07ZQ0, B07ZQ5, B07ZS0, B07ZV0, B07ZW0, B07ZX5, B07ZY0	Holding Time Exceeded
TOX	R	All	No instrument calibration data

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: Data Chem																			
Case	SDG:	B07ZH1																	
Sample Number		B07ZH1		B07ZK6		B07ZL1		B07ZL6		B07ZM6		B07ZN6		B07ZP1B		B07ZP6		B07ZQ1	
Location		199-B2-13		199-B4-4		199-B4-5		199-B4-7		199-B4-9		199-B5-2		199-B8-6		199-B9-1		199-B9-2	
Remarks																			
Sample Date		1/23/93		1/24/93		1/26/93		1/26/93		1/24/93		1/23/93		1/29/93		1/22/93		1/23/93	
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Hydrazine	D1385	3.0	UJ	3.0	UJ	3.0	UJ	3.0	UJ	3.0	UJ	3.0	UJ	3.0	UJ	3.0	UJ	3.0	UJ

EB = Equipment Blank

9713514.2525

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: Data Chem																			
Case	SDG:	B07ZH1																	
Sample Number		B07ZQ6		B07ZS1		B07ZT6		B07ZV1		B07ZW1		B07ZX0		B07ZX6		B07ZY1			
Location		199-B9-3		699-65-83		699-72-73		699-72-92		199-B4-4		199-B4-4		EB1		EB2			
Remarks										DUPLICATE		SPLIT		EB		EB			
Sample Date		1/22/93		1/30/93		1/22/93		1/22/93		1/24/93		1/24/93		1/28/93		1/28/93			
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Hydrazine	D1385	3.0	UJ	3.0	UJ	3.0	UJ	3.0	UJ	3.0	UJ	3.0	UJ	3.0	UJ	3.0	UJ		

EB = Equipment Blank

9713514.2526

DATA QUALIFICATION SUMMARY

SDG: B07ZH1	REVIEWER: LM	DATE: 7/31/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Hydrazine	J	All	Insufficient CCV/CCB analysis

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZH2																		
Sample Number		B07ZH2		B07ZM7		B07ZR2													
Location		199-B3-1		199-B5-1		699-65-72													
Remarks		NV		NV		NV													
Sample Date		01/15/93		01/15/93		01/14/93													
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloride	300.0	8.2		8.1		9.0													
Fluoride	300.0	0.3		0.3		0.6													
Phosphate	300.0	0.4	U	0.4	U	0.4	U												
pH (pH units)	150.1	7.9		7.6		7.8													
Sulfate	300.0	42		39		35													
Elect. Conductivity (umho/cm)	120.1	353		336		340													
Alkalinity	310.1	106		109		117													
Tot. Dissolved Solids	160.1	225		235		231													
Sulfide	376.1	1	U	1	U	1	U												
Ammonia Nitrogen	350.3	0.05	U	0.05	U	0.05	U												
COD	410.0	5	U	5	U	5	U												

NV = Not Validated

9713514.2528
WHC-SD-EN-TI-168, Rev. 1

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZH7																		
Sample Number		B07ZH7		B07ZJ7		B07ZS2													
Location		199-B3-46		199-B4-1		699-66-64													
Remarks																			
Sample Date		01/21/93		01/21/93		01/21/93													
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Fluoride	300.0	0.258	J	0.314	J	0.611	J												
Chloride	300.0	8.1	J	9.9	J	7.0	J												
Sulfate	300.0	43.0	J	49.1	J	38.1	J												
Phosphate	300.0	0.4	R	0.4	R	0.4	R												
pH (pH units)	150.1	8.0	J	8.0	J	8.0	J												
Ammonia Nitrogen	350.3	0.4		0.05	U	0.05	U												
Alkalinity	120.1	110		108		114													
Total Dissolved Solid	160.1	253	J	267	J	246	J												
Sulfide	376.1	1.0	UJ	1.0	UJ	1.0	UJ												
COD	410.0	5.0	U	5.0	U	5.0	U												
Elect. Conductivity (umhos/cm)	120.1	379		392		381													

9713514.2529

HOLDING TIME SUMMARY

SDG: B07ZH7	REVIEWER: KG			DATE: 5/21/93		PAGE 1 OF 1	
COMMENTS:							
FIELD SAMPLE ID	ANALYSIS TYPE	DATE SAMPLED	DATE PREPARED	DATE ANALYZED	PREP. HOLDING TIME, DAYS	ANALYSIS HOLDING TIME, DAYS	QUALIFIER
B07ZH7	pH	1/21/93		1/26/93		72 hours	J
B07ZJ7	pH	1/21/93		1/26/93		72 hours	J
B07ZS2	pH	1/21/93		1/26/93		72 hours	J
B07ZH7	TDS	1/21/93		2/10/93		7	J
B07ZJ7	TDS	1/21/93		2/10/93		7	J
B07ZS2	TDS	1/21/93		2/10/93		7	J
B07ZH7	Sulfide	1/21/93		2/12/93		7	J
B07ZJ7	Sulfide	1/21/93		2/12/93		7	J
B07ZS2	Sulfide	1/21/93		2/12/93		7	J
B07ZH7	Phosphate	1/21/93		2/4/93		48 hours	R
B07ZJ7	Phosphate	1/21/93		2/4/93		48 hours	R
B07ZS2	Phosphate	1/21/93		2/4/93		48 hours	R

9713514.2530
WHC-SD-EN-TI-168, Rev. 1

ACCURACY DATA SUMMARY

SDG: B07ZH7	REVIEWER: KG	DATE: 5/21/93	PAGE 1 OF 1	
COMMENTS:				
SAMPLE ID	COMPOUND	% RECOVERY	SAMPLE(S) AFFECTED	QUALIFIER REQUIRED
B07ZH7S	Phosphate	49.0	B07ZH7, B07ZJ7, B07ZS2	J

9713514.2531
WHC-SD-EN-TI-168, Rev. 1

DATA QUALIFICATION SUMMARY

SDG: B07ZH7	REVIEWER: KG	DATE: 5/21/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
pH	J	B07ZH7, B07ZJ7, B07ZS2	Holding time exceeded
TDS	J	B07ZH7, B07ZJ7, B07ZS2	Holding time exceeded
Sulfide	J	B07ZH7, B07ZJ7, B07ZS2	Holding time exceeded
Phosphate	R	B07ZH7, B07ZJ7, B07ZS2	Holding time grossly exceeded
Phosphate	J	B07ZH7, B07ZJ7, B07ZS2	Matrix spike
Fluoride	J	B07ZH7, B07ZJ7, B07ZS2	Insufficient CCV/CCB data provided
Chloride	J	B07ZH7, B07ZJ7, B07ZS2	Insufficient CCV/CCB data provided
Phosphate	J	B07ZH7, B07ZJ7, B07ZS2	Insufficient CCV/CCB data provided
Sulfate	J	B07ZH7, B07ZJ7, B07ZS2	Insufficient CCV/CCB data provided

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZK7																		
Sample Number		B07ZK7		B07ZL2															
Location		199-B4-5		199-B4-7															
Remarks		NV		NV															
Sample Date		01/26/93		01/26/93															
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloride	300.0	10.5		10.0															
Fluoride	300.0	0.3		0.4															
Phosphate	300.0	0.4	U	0.4	U														
pH (pH units)	150.1	7.9		7.9															
Sulfate	300.0	51		49															
Elect. Conductivity (umho/cm)	120.1	379		366															
Alkalinity	310.1	110		110															
Tot. Dissolved Solids	160.1	282		251															
Sulfide	376.1	1	U	1	U														
Ammonia Nitrogen	350.3	0.05	U	0.05	U														
COD	410.0	5	U	5	U														
N03N02 (mg N/L)	353.2	4.87		5.02															

NV = Not Validated

9713514.2533
WHC-SD-EN-TI-168, Rev. 1

9713514.2594

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZL7																		
Sample Number		B07ZL7		B07ZQ7		B07ZS7		B07ZV2											
Location		199-B4-8		699-63-90		699-71-77		199-B4-8											
Remarks		NV		NV		NV		NV, DUP											
Sample Date		01/17/93		01/16/93		01/18/93		01/17/93											
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloride	300.0	9.0		9.0		5.1		9.3											
Fluoride	300.0	0.3		0.4		0.5		0.4											
Phosphate	300.0	0.4	U	0.4	U	0.4	U	0.4	U										
pH (pH units)	150.1	8.1		7.9		8.0		8.0											
Sulfate	300.0	45		27		34		45											
Alkalinity	310.1	111		123		123		110											
Total Dissolved Solids	160.1	264		235		250		283											
Sulfide	376.1	1	U	1	U	1	U	1	U										
Ammonia Nitrogen	350.3	0.05	U	0.05	U	0.05	U	0.05	U										
COD	410.0	5	U	5	U	5	U	5	U										
N03N02 (mg N/L)	353.2	0.78		0.25	U	0.46		5.24											
Elect. Conductivity (umhos/cm)	120.1	367		316		331		364											

NV = Not Validated, DUP = Duplicate

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZM2																		
Sample Number		B07ZM2		B07ZN2		B07ZP2		B07ZQ2		B07ZT2		B07ZT7							
Location		199-B4-9		199-B5-2		199-B9-1		199-B9-3		699-72-73		699-72-92							
Remarks																			
Sample Date		01/24/93		01/23/93		01/22/93		01/22/93		01/22/93		01/22/93							
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Fluoride	300.0	0.322	J	0.500	J	0.351	J	0.354	J	0.384	J	0.272	J						
Chloride	300.0	9.76	J	10.1	J	11.7	J	11.0	J	5.55	J	7.70	J						
Sulfate	300.0	48.3	J	45.4	J	52.1	J	48.0	J	23.0	J	32.4	J						
Phosphate	300.0	0.4	R	0.4	R	0.4	R	0.4	R	0.4	R	0.4	R						
pH (pH units)	150.1	7.9	J	8.1	J	8.0	J	7.9	J	7.9	J	8.0	J						
Ammonia Nitrogen	350.3	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U						
Alkalinity	120.1	108		108		107		112		115		103							
Total Dissolved Solid	160.1	218	J	259	J	276	J	271	R	183	J	200	J						
Sulfide	376.1	NA		1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ						
COD	410.0	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U						
Elect. Conductivity (umhos/cm)	120.1	407		393		394		401		323		327							

NA = Not Analyzed

9713514.2535

HOLDING TIME SUMMARY

SDG: B07ZM2	REVIEWER: KG			DATE: 5/21/93		PAGE 1 OF 2	
COMMENTS:							
FIELD SAMPLE ID	ANALYSIS TYPE	DATE SAMPLED	DATE PREPARED	DATE ANALYZED	PREP. HOLDING TIME, DAYS	ANALYSIS HOLDING TIME, DAYS	QUALIFIER
B07ZM2	pH	1/24/93		1/28/93		72 hours	J
B07ZN2	pH	1/23/93		1/28/93		72 hours	J
B07ZP2	pH	1/22/93		1/28/93		72 hours	J
B07ZQ2	pH	1/22/93		1/28/93		72 hours	J
B07ZT2	pH	1/22/93		1/28/93		72 hours	J
B07ZT7	pH	1/22/93		1/28/93		72 hours	J
B07ZM2	TDS	1/24/93		2/10/93		7 days	J
B07ZN2	TDS	1/23/93		2/10/93		7 days	J
B07ZP2	TDS	1/22/93		2/10/93		7 days	J
B07ZQ2	TDS	1/22/93		3/2/93		7 days	R
B07ZT2	TDS	1/22/93		2/10/93		7 days	J
B07ZT7	TDS	1/22/93		2/10/93		7 days	J
B07ZN2	Sulfide	1/23/93		2/5/93		7 days	J
B07ZP2	Sulfide	1/22/93		2/5/93		7 days	J
B07ZQ2	Sulfide	1/22/93		2/5/93		7 days	J

HOLDING TIME SUMMARY

SDG: B07ZM2	REVIEWER: KG			DATE: 5/21/93		PAGE 2 OF 2	
COMMENTS:							
FIELD SAMPLE ID	ANALYSIS TYPE	DATE SAMPLED	DATE PREPARED	DATE ANALYZED	PREP. HOLDING TIME, DAYS	ANALYSIS HOLDING TIME, DAYS	QUALIFIER
B07ZT2	Sulfide	1/22/93		2/5/93		7 days	J
B07ZT7	Sulfide	1/22/93		2/5/93		7 days	J
B07ZM2	Phosphate	1/24/93		2/5/93		48 hours	R
B07ZN2	Phosphate	1/23/93		2/5/93		48 hours	R
B07ZP2	Phosphate	1/22/93		2/5/93		48 hours	R
B07ZQ2	Phosphate	1/22/93		2/5/93		48 hours	R
B07ZT2	Phosphate	1/22/93		2/5/93		48 hours	R
B07ZT7	Phosphate	1/22/93		2/5/93		48 hours	R

ACCURACY DATA SUMMARY

SDG: B07ZM2	REVIEWER: KG	DATE: 5/21/93	PAGE 1 OF 1	
COMMENTS:				
SAMPLE ID	COMPOUND	% RECOVERY	SAMPLE(S) AFFECTED	QUALIFIER REQUIRED
B07ZQ2S	Phosphate	56.0%	B07ZM2, B07ZN2, B07ZP2, B07ZQ2, B07ZT2, B07ZT7	J

DATA QUALIFICATION SUMMARY

SDG: B07ZM2	REVIEWER: KG	DATE: 5/21/93	PAGE 1 OF 1
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Chloride	J	All	Insufficient CCV/CCB data provided
Fluoride	J	All	Insufficient CCV/CCB data provided
Phosphate	J	All	Insufficient CCV/CCB data provided
Sulfate	J	All	Insufficient CCV/CCB data provided
pH	J	All	Holding time exceeded
Sulfide	J	All	Holding time exceeded
TDS	J	B07ZM2, B07ZN2, B07ZP2, B07ZT2, B07ZT7	Holding time exceeded
TDS	R	B07ZQ2	Holding time grossly exceeded
Phosphate	R	All	Holding time grossly exceeded
Phosphate	J	All	Matrix spike

9713514.2540

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZN7																		
Sample Number		B07ZN7		B07ZX2		B07ZX7													
Location		199-B8-6		EB-1		EB-2													
Remarks		NV		NV		NV													
Sample Date		01/23/93		01/28/93		01/28/93													
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloride	300.0	4.9		0.20	U	0.20	U												
Fluoride	300.0	0.40		0.10	U	0.10	U												
Phosphate	300.0	0.40	U	0.40	U	0.40	U												
pH (pH units)	150.1	7.9		5.6		5.6													
Sulfate	300.0	27.0		1.0	U	1.0	U												
Alkalinity	310.1	102		2.0	U	2.0	U												
TDS	160.1	185		5.0	U	5.0	U												
Sulfide	376.1	1.0	U	1.0	U	1.0	U												
Ammonia Nitrogen	350.3	0.05	U	0.05	U	0.05	U												
COD	410.0	5.0	U	5.0	U	5.0	U												
N03N02	353.2	2.16		0.25	U	0.25	U												
Elect. Conductivity	120.1	290		6.0	U	6.0	U												
(umhos/cm)																			

NV = Not Validated

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZR7																		
Sample Number		B07ZR7																	
Location		699-65-83																	
Remarks		NV																	
Sample Date		01/30/93																	
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloride	300.0	6.0																	
Fluoride	300.0	0.50																	
Phosphate	300.0	0.40	U																
pH (pH units)	150.1	8.1																	
Sulfate	300.0	33.0																	
Alkalinity	310.1	115																	
TDS	160.1	221																	
Sulfide	376.1	1	U																
Ammonia Nitrogen	350.3	0.60																	
COD	410.0	5	U																
N03N02 (mg N/L)	353.3	1.17																	
Elect. Conductivity (umhos/cm)	120.1	297																	

NV = Not Validated

9713514.2541

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: TMA																			
Case	SDG: B07ZN7																		
Sample Number		B07ZN7		B07ZX2		B07ZX7													
Location		199-B8-6		EB-1		EB-2													
Remarks		NV		NV		NV													
Sample Date		01/23/93		01/28/93		01/28/93													
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloride	300.0	4.9		0.20	U	0.20	U												
Fluoride	300.0	0.40		0.10	U	0.10	U												
Phosphate	300.0	0.40	U	0.40	U	0.40	U												
pH (pH units)	150.1	7.9		5.6		5.6													
Sulfate	300.0	27.0		1.0	U	1.0	U												
Alkalinity	310.1	102		2.0	U	2.0	U												
TDS	160.1	185		5.0	U	5.0	U												
Sulfide	376.1	1	U	1	U	1	U												
Ammonia Nitrogen	350.3	0.05	U	0.05	U	0.05	U												
COD	410.0	5	U	5	U	5	U												
N03N02	353.2	2.16		0.25	U	0.25	U												
Elect. Conductivity (umhos/cm)	120.1	290		6.0	U	6.0	U												

NV = Not Validated

9713514.2542

9713514.2543

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (ug/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: Roy F. Weston																			
Case	SDG: B07ZT5																		
Sample Number		B07ZT5																	
Location		699-72-73																	
Remarks		NV																	
Sample Date		01/22/93																	
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
TOX	9020.1	20.0	U																

NV = Not Validated

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: Roy F. Weston																			
Case	SDG:	B07ZW2																	
Sample Number		B07ZW2																	
Location		199-B4-8																	
Remarks		SPLIT, NV																	
Sample Date		1/17/93																	
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Alkalinity	310.1	110																	
Chloride	300.0	9.8																	
Fluoride	300.0	0.50	U																
Phosphate	300.0	0.25	U																
Sulfate	300.0	46.9																	
COD	410.1	5.0	U																
N03N02 (mg N/L)	353.2	5.3																	
Ammonia as N	350.3	0.10	U																
TOC	415.1	1.4																	
pH (pH units)	150.1	7.8																	
Sulfide	376.1	0.10	U																
TDS	160.2	258																	
TOX	9020	20.0	U																
Specif. Conductance (umhos/cm)	120.1	387																	

NV = Not Validated

9713514.2544

WET CHEMISTRY/ANIONS ANALYSIS, WATER MATRIX, (mg/L)

Project: WESTINGHOUSE-HANFORD																			
Laboratory: Roy F. Weston																			
Case	SDG: B07ZW7																		
Sample Number		B07ZW7																	
Location		199-B4-4																	
Remarks		NV, Split																	
Sample Date		01/24/93																	
Analytes	Method	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Alkalinity	310.1	110																	
Chloride by IC	200.7	10.2																	
Fluoride by IC	200.7	0.50	U																
Cyanide, Total	300.0	20.0	U																
COD	410.1	5.0	U																
Phosphate by IC	200.7	0.25	U																
Sulfate by IC	200.7	50.2																	
Nitrate Nitrite	353.3	5.1																	
Ammonia, as N	350.3	0.10	U																
TOC	505B	0.56																	
pH (pH units)	150.1	8.0																	
Sulfide	376.2	0.10	U																
TDS	160.1	264																	
TOX (ug/L)	9020.1	20.0	U																
Specif. Conductance (umhos/cm)	120.1	371																	

NV = Not Validated

9713514.2545
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WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	RADIOCHEMISTRY
199-B2-12	B07ZG2	W	01/19/93	V	13-3
199-B2-13	B07ZG7	W	01/23/93	V	13-3
199-B3-1	B07ZH2	W	01/15/93	V	13-3
199-B3-46	B07ZH7	W	01/21/93	V	13-3
199-B3-47	B07ZJ2	W	01/19/93	V	13-3
199-B4-1	B07ZJ7	W	01/21/93	V	13-3
199-B4-4	B07ZK2	W	01/24/93	V	13-3
199-B4-5	B07ZK7	W	01/26/93	V	13-5
199-B4-7	B07ZL2	W	01/26/93	V	13-5
199-B4-8	B07ZL7	W	01/17/93	V	13-3
199-B4-9	B07ZM2	W	01/24/93	V	13-3
199-B5-1	B07ZM7	W	01/15/93	V	13-3
199-B5-2	B07ZN2	W	01/23/93	V	13-4
199-B8-6	B07ZN7	W	01/23/93	V	13-5
199-B9-1	B07ZP2	W	01/22/93	V	13-4
199-B9-2	B07ZP7	W	01/23/93	V	13-4
199-B9-3	B07ZQ2	W	01/22/93	V	13-5
699-63-90	B07ZQ7	W	01/16/93	V	13-4
699-65-72	B07ZR2	W	01/14/93	V	13-4
699-65-83	B07ZR7	W	01/30/93	V	13-5
699-66-64	B07ZS2	W	01/21/93	V	13-4
699-71-77	B07ZS7	W	01/18/93	V	13-4
699-72-73	B07ZT2	W	01/22/93	V	13-5
699-72-92	B07ZT7	W	01/22/93	V	13-5
199-B4-8	B07ZV2	W	01/18/93	V	13-4
199-B4-4	B07ZV7	W	01/24/93	V	13-5
199-B4-8	B07ZW2	W	01/17/93	V	13-6

WELL AND SAMPLE INFORMATION					SAMPLE LOCATION INFORMATION
SAMPLE LOCATION	SAMPLE NUMBER	MATRIX	DATE SAMPLED	NV/V	RADIOCHEMISTRY
199-B4-4	B07ZW7	W	01/24/93	V	13-7
EB-1	B07ZX2	W	01/28/93	V	13-5
EB-2	B07ZX7	W	01/28/93	V	13-5
699-67-86	B07ZY4	W	01/19/93	V	13-4

7.0 GROSS ALPHA AND GROSS BETA DETERMINATION DATA VALIDATION

7.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were submitted for validation and checked for completeness:

B07ZG2 B07ZK7 B07ZW2 B07ZW7

7.2 HOLDING TIMES

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The maximum holding time for this analysis is six months.

All holding times were acceptable.

7.3 INSTRUMENT CALIBRATION AND PERFORMANCE

Instrument calibration is performed to establish that the gas proportional counter used for gross alpha and gross beta determination is capable of producing acceptable and reliable analytical data. The initial calibration was performed according to manufacturer's recommendations and consists of an instrument efficiency determination as a function of alpha or beta particle energy, and as a function of the mass of material submitted for counting. Continuing calibration checks are performed to verify that instrument performance is stable and reproducible on a day-to-day basis.

All calibration results were acceptable.

7.4 ACCURACY

Accuracy was evaluated by analyzing soil or distilled water samples spiked with known amounts of alpha or beta emitting radionuclides. The sample activity as determined by analysis is compared to the known activity to assess accuracy. Acceptable accuracy of spiked sample data must fall within a range of 80 to 120 percent. If spiked sample results were outside this range, the associated data was qualified as estimated (J/UJ).

Due to low LCS recoveries, all gross alpha and gross beta sample results in SDG No. B07ZK7 (except for gross beta results for sample numbers B07ZX2 and B07ZX7) were rejected and flagged "R".

All other accuracy data were acceptable.

7.5 PRECISION

Analytical precision is expressed by the RPD between the recoveries of duplicate matrix spike analyses performed on a sample. When the laboratory has not performed duplicate spike analyses, precision may also be assessed using unspiked duplicate sample analyses. Replicates with activities greater than five times the LLD and with an RPD less than 35 percent are acceptable. If one or both duplicate activities are <5xLLD, a control limit of 2xLLD is used. If replicate values are both below the LLD, no control limit is applicable. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects (J) or estimated non-detects (UJ).

Due to RPDs out of specification, all gross beta sample results in SDG No. B07ZG2 were qualified as estimates and flagged "J".

Due to RPDs out of specification, all gross alpha sample results in SDG No. B07ZW7 were qualified as estimates and flagged "J".

All other precision results were acceptable.

7.6 BLANK SAMPLES

Blank samples are analyzed to determine if positive results are due to laboratory reagent, sample container, or detector contamination.

All blank results were acceptable.

7.7 ANALYTE QUANTITATION AND REPORTED DETECTION LIMITS

Analyte quantitation and detection limits were recalculated for all samples in each data package to verify their accuracy.

Due to an unreproducable MDA, all gross beta results for SDG No. B07ZW7 were qualified as estimates and flagged "J".

Due to a lack of instrument indentification in the quality assurance graph, all gross alpha and beta results for SDG No. B07ZW7 were qualified as estimates and flagged "J".

All other analyte quantitation and reported detection limits for all samples were acceptable.

7.8 OVERALL ASSESSMENT AND SUMMARY

A review of instrument continuing calibration information and QC data indicates that instrument performance was inadequate for these analyses. Due to low (<50%) LCS recoveries, all gross alpha and all but two gross beta sample results in SDG No. B07ZK7 were rejected and flagged "R". Due to RPDs out of specification, all gross beta sample results in SDG No. B07ZG2 were qualified as estimated and flagged "J". Data qualified as estimated are valid and usable for limited purposes only. Rejected data are unusable for all purposes. All other QC and calibration results were acceptable and usable for all purposes.

8.0 ALPHA SPECTROSCOPY DATA VALIDATION

8.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were submitted for validation and checked for completeness:

B07ZG2 B07ZK7 B07ZW2 B07ZW7

8.2 HOLDING TIMES

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The maximum holding time for this analysis is six months.

All holding times were acceptable.

8.3 INSTRUMENT CALIBRATION AND PERFORMANCE

Instrument calibration is performed to establish that the alpha spectroscopy system used is capable of producing acceptable and reliable analytical data. The initial calibration was performed according to manufacturer's recommendations and consists of an instrument efficiency determination for each alpha radionuclide region of interest, and a system resolution assessment as measured by the full-width at half maximum for each peak. Initial calibration was performed for each c0ounting geometry used during the analysis of Westinghouse-Hanford samples. Continuing calibration checks are performed to verify that instrument performance is stable and reproducible on a day-to-day basis.

All instrument calibration and performance data were acceptable.

8.4 ACCURACY

Accuracy was evaluated by analyzing soil or distilled water samples spiked with known amounts of alpha emitting radionuclides. The sample activity as determined by analysis is compared to the known activity to assess accuracy. The acceptable matrix spike or Laboratory Control Sample recovery range is 80 to 120 percent, while that for radiometric yields is 30 to 105%. Spike sample results outside the above ranges

resulted in qualification of the associated data as estimated (J/UJ).

Due to low chemical yields, all isotopic Uranium results for sample number B07ZR7 in SDG No. B07ZK7 were rejected and flagged "R".

Due to low chemical yields, all Americium 241 results for sample number B07ZW7 in SDG No. B07ZW7 were rejected and flagged "R".

Due to low chemical yields, all isotopic Plutonium results for sample number B07ZY4 in SDG No. B07ZG2 were rejected and flagged "R".

All other accuracy results were acceptable.

8.5 PRECISION

Analytical precision is expressed by the RPD between the recoveries of duplicate matrix spike analyses performed on a sample. When the laboratory has not performed duplicate spike analyses, precision may also be assessed using unspiked duplicate samples. Replicates with a RPD less than 35 percent are acceptable. If one or both duplicate activities are <5xLLD, a control limit of 2xLLD is used. If replicate values are both below the LLD, no control limit is applicable. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects (J) or estimated non-detects (UJ).

Due to RPDs out of specification, all U-235 and AM-241 results in SDG No. B07ZW2 were qualified as estimates and flagged "J".

All other precision results were acceptable.

8.6 BLANK SAMPLES

Blank samples are analyzed to determine if positive results are due to laboratory reagent, sample container, or detector contamination.

All blank results were acceptable.

8.7 ANALYTE QUANTITATION AND REPORTED DETECTION LIMITS

Analyte quantitations and detection limits were recalculated for all samples in each data delivery package to verify their accuracy.

All analyte quantitation and reported detection limits were acceptable.

8.8 OVERALL ASSESSMENT AND SUMMARY

A complete review of all QC and calibration data indicates that overall system performance is adequate. The results for Plutonium-238 and Plutonium-239/240 were affected by low chemical yields in sample number B07ZY4 in SDG No. B07ZG2. All associated data were rejected and flagged "R". The isotopic Uranium results in sample number B07ZR7 in SDG No. B07ZK7 were also rejected and flagged "R" due to low chemical yields. Rejected results are unusable for all purposes. All other QC and calibration data were acceptable and usable for all purposes.

9.0 GAMMA SPECTROSCOPY DATA VALIDATION

9.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were submitted for validation and checked for completeness:

B07ZG2 B07ZK7 B07ZW2 B07ZW7

9.2 HOLDING TIMES

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The maximum holding time for this analysis is six months.

All holding times were acceptable.

9.3 INSTRUMENT CALIBRATION AND PERFORMANCE

Instrument calibration is performed to establish that the gamma spectroscopy system used is capable of producing acceptable and reliable analytical data. The initial calibration was performed according to manufacturer's recommendations and consists of an instrument efficiency determination for each gamma radionuclide region of interest, and a system resolution assessment as measured by the full-width at half maximum for each peak. Initial calibration was performed for each counting geometry used during the analysis of Westinghouse-Hanford samples. Continuing calibration checks are performed to verify that instrument performance is stable and reproducible on a day-to-day basis.

All instrument calibration and performance data were acceptable.

9.4 ACCURACY

Accuracy was evaluated by analyzing soil or distilled water samples spiked with known amounts of gamma emitting radionuclides. The sample activity as determined by sample analysis is compared to the known activity to assess accuracy. The acceptable spiked recovery range is 80 to 120 percent. If spiked sample results were outside this range the associated data was qualified as estimated (J/UJ).

Due to a lack of gamma spike data, all results for sample number B07ZW7 in SDG No. B07ZW7 were qualified as estimates and flagged "J".

All other accuracy results were acceptable.

9.5 PRECISION

Analytical precision is expressed by the RPD between the recoveries of duplicate matrix spike analyses performed on a sample. When the laboratory has not performed duplicate spike analyses, precision may also be assessed using unspiked duplicate sample analyses. Replicates with a RPD less than 35 percent are acceptable. If one or both duplicate activities are <5xLLD, a control limit of 2xLLD is used. If replicate values are both below the LLD, no control limit is applicable. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects (J) or estimated non-detects (UJ).

All precision results were acceptable.

9.6 BLANK SAMPLES

Blank samples are analyzed to determine if positive results may be due to laboratory reagent, sample container, or detector contamination.

Due to lack of blank sample data, all gamma scan results in SDG No. B07ZW7 were qualified as estimates and flagged with a "J".

All other blank results were acceptable.

9.7 ANALYTE QUANTITATION AND REPORTED DETECTION LIMITS

Analyte quantitations and detection limits were recalculated for all samples in each data delivery package to verify their accuracy.

All analyte quantitation and detection limits and results were acceptable.

9.8 OVERALL ASSESSMENT AND SUMMARY

A review of instrument continuing calibration information and QC data indicates that instrument performance was adequate for these analyses. All results are acceptable and usable for all purposes.

10.0 STRONTIUM-90 DETERMINATION DATA VALIDATION

10.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were found to be complete:

B07ZG2 B07ZK7 B07ZW2 B07ZW7

10.2 HOLDING TIMES

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The maximum holding time for this analysis is six months.

All holding times were acceptable.

10.3 INSTRUMENT CALIBRATION AND PERFORMANCE

Instrument calibration is performed to establish that the low background counting system used for Strontium-90 determination is capable of producing acceptable and reliable analytical data. The initial calibration was performed according to manufacturer's recommendations and consists of an instrument detection efficiency determination. Continuing calibration checks are performed to verify that instrument performance is stable and reproducible on a day-to-day basis.

All instrument calibration and performance data were acceptable.

10.4 ACCURACY

All spike recoveries should be within the specified QC range of 80 to 120 percent, while all radiotraced samples should show a radiometric yield or recovery between 30 and 105%. Spiked sample results outside the above ranges resulted in qualification of the associated data as estimated.

All accuracy results were acceptable.

10.5 PRECISION

Analytical precision is expressed by the RPD between the recoveries of duplicate matrix spike analyses performed on a sample. When the laboratory has not performed duplicate spike analyses, precision may also be assessed using unspiked duplicate sample analyses. Replicates with an RPD less than 35 percent are acceptable. If one or both duplicate activities are <5xLLD, a control limit of 2xLLD is used. If replicate values are both below the LLD, no control limit is applicable. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects (J) or estimated non-detects (UJ).

Due to RPDs out of specification, all strontium-90 results in SDG No. B07ZW7 were qualified as estimates and flagged "J".

All other precision results were acceptable.

10.6 BLANK SAMPLES

Blank samples are analyzed to determine if positive results may be due to laboratory reagent, sample container, or detector contamination.

All blank results were acceptable.

10.7 ANALYTE QUANTITATION AND REPORTED DETECTION LIMITS

Analyte quantitation and detection limits were recalculated for all samples in each data delivery package to verify their accuracy.

All analyte quantitation and reported detection limits for all samples were acceptable.

10.8 OVERALL ASSESSMENT AND SUMMARY

A review of instrument continuing calibration information and QC data indicates that instrument performance was adequate for these analyses. All results are acceptable and usable for all purposes.

11.0 TECHNETIUM-99 DETERMINATION DATA VALIDATION

11.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were submitted for validation and checked for completeness:

B07ZG2 B07ZK7 B07ZW2 B07ZW7

11.2 HOLDING TIMES

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The maximum holding time for this analysis is six months.

All holding times were acceptable.

11.3 INSTRUMENT CALIBRATION AND PERFORMANCE

Instrument calibration is performed to establish that the low background counting system used for Technetium-99 determination is capable of producing acceptable and reliable analytical data. The initial calibration was performed according to manufacturer's recommendations and consists of an instrument detection efficiency determination. Continuing calibration checks are performed to verify that instrument performance is stable and reproducible on a day-to-day basis.

All instrument calibration and performance data were acceptable.

11.4 ACCURACY

All spike recoveries should be within the specified QC range of 80 to 120 percent, while all radiotraced samples should show a radiometric yield or recovery between 30 and 105%. Spiked sample results outside the above ranges resulted in qualification of the associated data as estimated.

All accuracy results were acceptable.

11.5 PRECISION

Analytical precision is expressed by the RPD between the recoveries of duplicate matrix spike analyses performed on a sample. When the laboratory has not performed duplicate spike analyses, precision may also be assessed using unspiked duplicate sample analyses. Replicates with an RPD less than 35 percent are acceptable. If one or both duplicate activities are <5xLLD, a control limit of 2xLLD is used. If replicate values are both below the LLD, no control limit is applicable. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects (J) or estimated non-detects (UJ).

All precision results were acceptable.

11.6 BLANK SAMPLES

Blank samples are analyzed to determine if positive results may be due to laboratory reagent, sample container, or detector contamination.

All blank results were acceptable.

11.7 ANALYTE QUANTITATION AND REPORTED DETECTION LIMITS

Analyte quantitation and detection limits were recalculated for all samples in each data delivery package to verify their accuracy.

All analyte quantitation and reported detection limits for all samples were acceptable.

11.8 OVERALL ASSESSMENT AND SUMMARY

A review of instrument continuing calibration information and QC data indicates that instrument performance was adequate for these analyses. All results are acceptable and usable for all purposes.

12.0 CARBON-14 DETERMINATION DATA VALIDATION

12.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were submitted for validation and checked for completeness:

B07ZG2 B07ZK7 B07ZW2 B07ZW7

12.2 HOLDING TIMES

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The maximum holding time for this analysis is six months.

All holding times were acceptable.

12.3 INSTRUMENT CALIBRATION AND PERFORMANCE

Instrument calibration is performed to establish that the low background liquid scintillation counting system used for Carbon-14 determination is capable of producing acceptable and reliable analytical data. The initial calibration was performed according to manufacturer's recommendations and consists of an instrument efficiency determination for each applicable radionuclide. Continuing calibration checks are performed to verify that instrument performance is stable and reproducible on a day-to-day basis.

All instrument calibration and performance data were acceptable.

12.4 ACCURACY

All spike recoveries should be within the specified QC range of 80 to 120 percent, while all radiometric yields should fall within the range of 30 to 105%. Spiked sample results outside the above ranges resulted in qualification of the associated data as estimated (J/UJ).

Due to LCS recoveries out of specifcation (50<%R<79), all Carbon-14 sample results in SDG No. B07ZG2 were qualified as estimated and flagged "J".

All other accuracy results were acceptable.

12.5 PRECISION

Analytical precision is expressed by the RPD between the recoveries of duplicate matrix spike analyses performed on a sample. When the laboratory has not performed duplicate spike analyses, precision may also be assessed using unspiked duplicate sample analyses. Replicates with a RPD less than 35 percent are acceptable. If one or both duplicate activities are <5xLLD, a control limit of 2xLLD is used. If replicate values are both below the LLD, no control limit is applicable. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects (J) or estimated non-detects (UJ).

All precision results were acceptable.

12.6 BLANK SAMPLES

Blank samples are analyzed to determine if positive results may be due to laboratory reagent, sample container, or detector contamination.

All blank results were acceptable.

12.7 ANALYTE QUANTITATION AND REPORTED DETECTION LIMITS

Analyte quantitation and detection limits were recalculated for all samples in each data delivery package to verify their accuracy.

All analyte quantitation and reported detection limits and sample results were acceptable.

12.8 OVERALL ASSESSMENT AND SUMMARY

A review of instrument performance and calibration reveals that the overall system performance is adequate. Due to low (50<%R<79) LCS recoveries, all Carbon-14 sample results in SDG No. B07ZG2 were qualified as estimated and flagged "J". All other QC and calibration results were acceptable and usable for all purposes.

13.0 TRITIUM DETERMINATION DATA VALIDATION

13.1 DATA PACKAGE COMPLETENESS

The following data packages (SDG Nos.) were submitted for validation and checked for completeness:

B07ZG2 B07ZK7 B07ZW2 B07ZW7

13.2 HOLDING TIMES

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The maximum holding time for this analysis is six months.

All holding times were acceptable.

13.3 INSTRUMENT CALIBRATION AND PERFORMANCE

Instrument calibration is performed to establish that the low background liquid scintillation counting system used for Carbon-14 determination is capable of producing acceptable and reliable analytical data. The initial calibration was performed according to manufacturer's recommendations and consists of an instrument efficiency determination for each applicable radionuclide. Continuing calibration checks are performed to verify that instrument performance is stable and reproducible on a day-to-day basis.

All instrument calibration and performance data were acceptable.

13.4 ACCURACY

All spike recoveries should be within the specified QC range of 80 to 120 percent, while all radiometric yields should fall within the range of 30 to 105%. Spiked sample results outside the above ranges resulted in qualification of the associated data as estimated (J/UJ).

All accuracy results are acceptable.

13.5 PRECISION

Analytical precision is expressed by the RPD between the recoveries of duplicate matrix spike analyses performed on a sample. When the laboratory has not performed duplicate spike analyses, precision may also be assessed using unspiked duplicate sample analyses. Replicates with a RPD less than 35 percent are acceptable. If one or both duplicate activities are <5xLLD, a control limit of 2xLLD is used. If replicate values are both below the LLD, no control limit is applicable. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects (J) or estimated non-detects (UJ).

All precision results were acceptable.

13.6 BLANK SAMPLES

Blank samples are analyzed to determine if positive results may be due to laboratory reagent, sample container, or detector contamination.

All blank results were acceptable.

13.7 ANALYTE QUANTITATION AND REPORTED DETECTION LIMITS

Analyte quantitation and detection limits were recalculated for all samples in each data delivery package to verify their accuracy.

All analyte quantitation and reported detection limits and sample results were acceptable.

13.8 OVERALL ASSESSMENT AND SUMMARY

A review of instrument performance and calibration reveals that the overall system performance is adequate. All QC and calibration results were acceptable and usable for all purposes.

RADIOCHEMISTRY ANALYSIS, WATER MATRIX, (pCi/L+-2 standard deviations)

Project: WESTINGHOUSE-HANFORD																				
Laboratory: TMA																				
Case	SDG: B07ZG2																			
Sample Number	B07ZG2		B07ZG7		B07ZH2		B07ZH7		B07ZJ2		B07ZJ7		B07ZK2		B07ZL7		B07ZM2		B07ZM7	
Location	199-B2-12		199-B2-13		199-B3-1		199-B3-46		199-B3-47		199-B4-1		199-B4-4		199-B4-8		199-B4-9		199-B5-1	
Remarks																				
Sample Date	1/19/93		1/23/93		1/15/93		1/21/93		1/19/93		1/21/93		1/24/93		1/17/93		1/24/93		1/15/93	
Analysis Date	4/2/93		4/6/93		4/2/93		4/25/93		4/6/93		4/6/93		4/2/93		4/2/93		4/5/93		4/2/93	
Radiochemistry Analysis	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Gross Alpha	0.28	U	0.44	U	0.79	U	-3.6	U	3.0		2.0	J	1.3	U	0.18	U	0.90	U	1.1	U
Gross Beta	5.2	J	9.4	J	140	J	290	J	74	J	72	J	87	J	46	J	83	J	37	J
Uranium-233/234	1.0		0.46		0.73		0.5		1.1		0.72		0.59		0.39		0.59		0.60	
Uranium-235	0.018	U	0.028	U	0.030	U	0.016	U	0.050	U	-0.015	U	0.032	U	0.034	U	0.028	U	0	U
Uranium-238	0.49		0.47		0.83		0.59		0.94		0.52		0.40		0.51		0.36		0.56	
Plutonium-238	0	U	0	U	0.005	U	0.033	U	-0.009	U	-0.006	U	-0.004	U	0.016	U	0.005	U	0.005	U
Plutonium-239/240	0	U	0.019	U	0.008	U	0.004	U	0.005	U	0.006	U	0.004	U	-0.009	U	0	U	0.002	U
Americium-241	-0.006	U	0.005	U	0.019	U	-0.011	U	-0.003	U	0.006	U	0.010	U	0.006	U	-0.002	U	-0.006	U
Strontium-90	0.14	U	-0.34	U	44		120		20		23		70		1.2	J	29		0.78	U
Technetium-99	0.73	U	14		95		130		74		70		33		87		73		67	
Tritium	120	U	13000		3800		4600		17000		3100		2800		3600		2900		2600	
Carbon-14	-23	UJ	86	J	-5.1	UJ	-19	UJ	-5.7	UJ	-11	UJ	-14	UJ	-12	UJ	2.0	UJ	-10	UJ
Potassium-40	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Chromium-51	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Cobalt-60	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Zinc-65	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Cesium-134	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Cesium-137	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Radium-226	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Thorium-228	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Thorium-232	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Europium-152	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Europium-154	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Iron-59	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Ruthenium-106	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U

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RADIOCHEMISTRY ANALYSIS, WATER MATRIX, (pCi/L+-2 standard deviations)

Project: WESTINGHOUSE-HANFORD
Laboratory: TMA
Case SDG: B07ZG2

Sample Number	B07ZN2		B07ZP2		B07ZP7		B07ZQ7		B07ZR2		B07ZS2		B07ZS7		B07ZV2		B07ZY4			
Location	199-B5-2		199-B9-1		199-B9-2		699-63-90		699-65-72		699-66-64		699-71-77		199-B4-8		699-67-86			
Remarks																				
Sample Date	1/23/93		1/22/93		1/23/93		1/16/93		1/14/93		1/21/93		1/18/93		1/18/93		1/19/93			
Analysis Date	4/02/93		4/05/93		4/05/93		4/02/93		4/02/93		4/05/93		4/02/93		4/25/93		4/06/93			
Radiochemistry Analysis	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Gross Alpha	-0.75	U	0.78	U	0.57	U	-0.21	U	0.50	U	2.5	J	1.4	U	0.99	U	0.57	U		
Gross Beta	64	J	26	J	30	J	3.8	J	18	J	110	J	38	J	43	J	6.3	J		
Uranium-233/234	0.49		0.38		0.60		0.99		1.2		0.77		1.0		0.56		0.49			
Uranium-235	0	U	0.016	U	0	U	0.080	U	0.039	U	0.12	J	0.048	U	0.018	U	0.046	U		
Uranium-238	0.55		0.50		0.57		0.32		0.98		0.63		0.58		0.40		0.35			
Plutonium-238	0	U	0.003	U	0.019	U	0.010	U	-0.020	U	-0.016	U	-0.012	U	-0.003	U	-0.008	R		
Plutonium-239/240	0	U	0.007	U	0.006	U	0.020	U	-0.004	U	-0.007	U	-0.003	U	-0.003	U	-0.015	R		
Americium-241	0.010	U	-0.008	U	0.003	U	0.008	U	0.006	U	0.015	U	0.003	U	0	U	-0.006	U		
Strontium-90	16		1.2	J	0.32	U	0.066	U	0.10	U	0.14	U	0.27	U	0.66	U	-0.008	U		
Technetium-99	80		47		53		0.93	U	29		230		76		85		1.7	J		
Tritium	3600		2000		2300		120	U	27000		6300		2700		3500		710			
Carbon-14	-9.2	UJ	-13	UJ	-15	UJ	-16	UJ	-13	UJ	240	J	-4.0	UJ	-18	UJ	5.1	UJ		
Potassium-40	N/D	U	N/D	U	110		N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Chromium-51	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Cobalt-60	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Zinc-65	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Cesium-134	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Cesium-137	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Radium-226	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Thorium-228	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Thorium-232	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Europium-152	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Europium-154	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Iron-59	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		
Ruthenium-106	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U		

RADIOCHEMISTRY ANALYSIS, WATER MATRIX, (pCi/L+-2 standard deviations)

Project: WESTINGHOUSE-HANFORD																				
Laboratory: TMA																				
Case	SDG: B07ZK7																			
Sample Number	B07ZK7		B07ZL2		B07ZN7		B07ZQ2		B07ZR7		B07ZT2		B07ZT7		B07ZV7		B07ZX2		B07ZX7	
Location	199-B4-5		199-B4-7		199-B8-6		199-B9-3		699-65-83		699-72-73		699-72-92		199-B4-4		EB-1		EB-2	
Remarks															DUP		EB		EB	
Sample Date	1/26/93		1/26/93		1/23/93		1/22/93		1/30/93		1/22/93		1/22/93		1/24/93		1/28/93		1/28/93	
Analysis Date	4/14/93		4/14/93		4/09/93		4/09/93		4/09/93		4/09/93		4/14/93		4/14/93		4/14/93		4/14/93	
Radiochemistry Analysis	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Gross Alpha	0.47	R	-0.36	R	-0.044	R	-2.0	R	0.69	R	-0.11	R	0.31	R	-0.42	R	0.98	U	-0.083	U
Gross Beta	43	R	46	R	20	R	31	R	12	R	45	R	3.1	R	89	R	-0.79	U	-0.67	U
Uranium-233/234	0.45		0.50		0.69		0.68		0.62	R	0.44		0.48		0.62		0.18	J	0	U
Uranium-235	0	U	0.082	U	0	U	0.030	U	0.038	R	0	U	0.049	U	0.058	U	0.065	U	0	U
Uranium-238	0.52		0.52		0.27		0.38		0.34	R	0.83		0.38		0.55		0.018	U	0.051	U
Plutonium-238	0.027	U	0.010	U	0.013	U	0.005	U	-0.003	U	-0.010	U	0.003	U	-0.014	U	0.002	U	0.023	U
Plutonium-239/240	0.008	U	0.007	U	0	U	-0.002	U	0.007	U	0.003	U	0.003	U	-0.003	U	0.007	U	0.003	U
Americium-241	0.019	U	0.006	U	-0.014	U	0.014	U	-0.009	U	0.010	U	0.006	U	0	U	-0.004	U	0.009	U
Strontium-90	6.0		6.5		0	U	0.047	U	-0.21	U	-0.30	U	0.11	U	33		0	U	0	U
Technetium-99	64		64		35		60		11		110		0.74	U	70		1.4	U	0.43	U
Tritium	2400		2900		2200		2600		880		2800		1100		2600		16	U	120	U
Carbon-14	-5.9	U	-9.6	U	5.6	U	-23	U	-22	U	23	U	-18	U	10	U	-0.78	U	13	U
Potassium-40	N/D	U	200		N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Chromium-51	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Cobalt-60	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Zinc-65	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Cesium-134	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Cesium-137	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Radium-226	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Thorium-228	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Thorium-232	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Europium-152	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Europium-154	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Iron-59	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U
Ruthenium-106	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U

DUP = Duplicate, EB = Equipment Blank

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RADIOCHEMISTRY ANALYSIS, WATER MATRIX, (pCi/L+-2 standard deviations)

Project: WESTINGHOUSE-HANFORD																				
Laboratory: EcoTek																				
Case	SDG B07ZW2																			
Sample Number	B07ZW2																			
Location	199-B4-8																			
Remarks	SPLIT																			
Sample Date	1/17/93																			
Analysis Date	2/26/93																			
Radiochemistry Analysis	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Gross Alpha	3.15																			
Gross Beta	43.0																			
Uranium-235	N/D	UJ																		
Uranium-238	0.725																			
Plutonium-239/240	N/D	UJ																		
Americium-241	N/D	UJ																		
Strontium-90	N/D	UJ																		
Technetium-99	N/D	UJ																		
Tritium	2980																			
Carbon-14	N/D	U																		
Cobalt-60	N/D	U																		
Cesium-134	N/D	U																		
Cesium-137	N/D	U																		
Radium-223	N/D	U																		
Radium-224	N/D	U																		
Europium-152	N/D	U																		
Europium-154	N/D	U																		
Europium-155	N/D	U																		
Cobalt-58	N/D	U																		
Cerium-144	N/D	U																		
Iron-59	N/D	U																		

N/D = Not Detected

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RADIOCHEMISTRY ANALYSIS, WATER MATRIX, (pCi/L+-2 standard deviations)

Project: WESTINGHOUSE-HANFORD																						
Laboratory: EcoTek																						
Case	SDG: B07ZW7																					
Sample Number	B07ZW7																					
Location	199-B4-4																					
Remarks	SPLIT																					
Sample Date	1/24/93																					
Radiochemistry Analysis	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Gross Alpha	4.77	J																				
Gross Beta	94.8	J																				
Uranium-235	N/D	U																				
Uranium-238	0.563																					
Plutonium-239/240	N/D	U																				
Americium-241	N/D	R																				
Strontium-90	23.8	J																				
Technetium-99	N/D	U																				
Tritium	2680																					
Carbon-14	N/D	U																				
Cobalt-60	N/D	UJ																				
Cesium-134	N/D	UJ																				
Cesium-137	N/D	UJ																				
Radium-223	N/D	UJ																				
Radium-224	N/D	UJ																				
Europium-152	N/D	UJ																				
Europium-154	N/D	UJ																				
Europium-155	N/D	UJ																				
Cobalt-58	N/D	UJ																				
Cerium-144	N/D	UJ																				
Iron-59	N/D	UJ																				

N/D = Not Detected

14.0 REFERENCES

EPA, 1987, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, Third Edition, Environmental Protection Agency, Washington, D.C.

EPA, 1988a, *EPA Contract Laboratory Program Statement of Work for Organics Analyses, Multi-Media, Multi-Concentration*, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1988b, *Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses*, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1988c, *EPA Contract Laboratory Program Statement of Work for Inorganics Analyses, Multi-Media, Multi-Concentration*, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1988d, *Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses*, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1990, *EPA Contract Laboratory Program Statement of Work for Inorganic Analyses, Multi-media, Multi-Concentration*, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1991, *EPA Contract Laboratory Program Statement of Work for Organics Analyses, Multi-Media, Multi-Concentration*, Environmental Protection Agency, Washington, D.C.

WHC, 1992a, *Data Validation Procedures for Chemical Analyses*, WHC-SD-EN-SPP-002, Rev. 1, Westinghouse Hanford Company, April 1992.

WHC, 1992b, *Data Validation Procedure for Radiological Analyses*, WHC-SD-EN-SPP-001, Westinghouse Hanford Company, 1992.

9713514.2570

T216

Transmittal Form to Validator

1. To Validator (SCA) [illegible]
   Project/CU [illegible]

2. Data Packages Attached (list and attach)
   PABU4 - DAT - 250

3. The attached data packages have been verified and (check one):
   X All required checklist items are included.
   ____ Checklist items circled on attached verification checklist items cannot be provided and the decision has been made to proceed with validation anyway.
   NCR # ____

4. Certified by Verifier
   [illegible]
   Signature
   8/5/92 2:30 pm
   Date

5. Received by Validator
   [illegible] A T Kearney
   Signature
   8/6/92
   Date

Verification No. T-00285-93 CHEMICAL DATA PACKAGE VERIFICATION COVER SHEET

Project: 100-NR-4	Reviewer: S Lundberg	Date: 8/5/93
Laboratory: DataChem	Case: 3X-0218-AA	SDG: B08L64
Data Package ID: B08L04-DAT-250	Case Narrative Present? Yes No	

Analyses Performed: Hydrocarbons

HEIS No.	Matrix	WHC COC	WHC SAR	VOA	Semi-VOA	Pest/PCB	Inorganic	General	Dioxin/Furan	Special GC
B08L64	Water	X	X					X		
B08L24		X	X					X		
B08L59		X	X					X		
B08L67		X	X					X		
B08L77		X	X					X		
B08L07		X	X					X		
B08L99		X	X					X		
B08L34		X	X					X		
B08L14		X	X					X		
B08L84		X	X					X		
B08L94	V	X	X					X		

9415142571

9713514.2572

10 2137

1/26/93 PM

 Skinner&Sherman REPORT Work Order # S3-01-157

Received: 01/27/93 Results by Sample

SAMPLE ID B07ZQ2 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 01/22/93 Category WATER

NO3NO2 4.77 mg N/L

SAMPLE ID B07ZT2 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 01/22/93 Category WATER

NO3NO2 3.38 mg N/L

SAMPLE ID B07ZT7 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 01/22/93 Category WATER

NO3NO2 2.67 mg N/L

SAMPLE ID B07ZN2 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 01/23/93 Category WATER

NO3NO2 5.67 mg N/L

SAMPLE ID B07ZM2 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 01/24/93 Category WATER

NO3NO2 5.51 mg N/L

SAMPLE ID B07ZP2 SAMPLE # 06 FRACTIONS: A
Date & Time Collected 01/22/93 Category WATER

NO3NO2 4.30 mg N/L

SAMPLE ID B07ZP7 SAMPLE # 07 FRACTIONS: A
Date & Time Collected 01/23/93 Category WATER

NO3NO2 4.75 mg N/L

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc., retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Samples are not analyzed in accordance with New York State protocol unless indicated. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc., will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held for thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9713514.2573

Received: 01/27/93 Results by Sample

5/26/93 hw

SAMPLE ID B07ZG7 ✓ SAMPLE # 08 FRACTIONS: A
Date & Time Collected 01/23/93 Category WATER

NO3NO2 3.09 ✓
mg N/L

SAMPLE ID B07ZK2 ✓ SAMPLE # 09 FRACTIONS: A
Date & Time Collected 01/23/93 Category WATER

NO3NO2 5.13 ✓
mg N/L

SAMPLE ID B07ZV7 ✓ SAMPLE # 11 FRACTIONS: A
Date & Time Collected 01/24/93 Category WATER

NO3NO2 3.41 ✓
mg N/L

SAMPLE ID B07ZV7 DUPL SAMPLE # 11 FRACTIONS: B
Date & Time Collected 01/24/93 Category WATER

NO3NO2 3.37
mg N/L

SAMPLE ID B07ZV7 SPIKE SAMPLE # 11 FRACTIONS: C
Date & Time Collected 01/24/93 Category WATER

NO3NO2 5.08
mg N/L

SAMPLE ID B07ZG2 ✓ SAMPLE # 12 FRACTIONS: A
Date & Time Collected 01/19/93 Category WATER

NO3NO2 <0.25 (U) ✓
mg N/L

SAMPLE ID B07ZJ2 ✓ SAMPLE # 13 FRACTIONS: A
Date & Time Collected 01/19/93 Category WATER

NO3NO2 5.67 ✓
mg N/L

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc., retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Samples are not analyzed in accordance with New York State protocol unless indicated. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc., will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held for thirty days following issuance of report. Samples will be stored at client's expense if authorized in writing.

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9713514.2574

Received: 01/27/93 Results by Sample

5/26/93 JW

SAMPLE ID B07ZY4 SAMPLE # 14 FRACTIONS: A
Date & Time Collected 01/19/93 Category WATER

NO3NO2 0.64 mg N/L

SAMPLE ID B07ZW7 SAMPLE # 15 FRACTIONS: A
Date & Time Collected 01/21/93 Category WATER

NO3NO2 6.81 mg N/L

SAMPLE ID B07ZJ7 SAMPLE # 16 FRACTIONS: A
Date & Time Collected 01/21/93 Category WATER

NO3NO2 5.29 mg N/L

SAMPLE ID B07ZS2 SAMPLE # 17 FRACTIONS: A
Date & Time Collected 01/21/93 Category WATER

NO3NO2 8.50 mg N/L

SAMPLE ID LCSW SAMPLE # 18 FRACTIONS: A
Date & Time Collected not specified Category WATER

NO3NO2 2.00 mg N/L

TMA Thermo Analytical Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc., retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Samples are not analyzed in accordance with New York State protocol unless indicated. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc., will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held for thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9713514.2575

000113

TMA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZP7 FRACTION 01C TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	11.0 (J)	mg/L	0.2
Fluoride	300.0	~~0.4~~ 0.3 (J)	mg/L	0.1
Phosphate	300.0	<0.4 J	mg/L (R)	0.4
pH	150.1	7.8 J	pH	0.1
Sulfate	300.0	53.2 (J)	mg/L	1
Elect. Conductivity	120.1	397	umho/cm	6

FORM I

KLS 5/21/93

5/26/93 fm

PB 6/25/93

9713514.2576

000114

TNA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZP7 FRACTION 01D TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	110	mg/L	2
Tot. Dissolved Solids	160.1	279 J	mg/L	5

FORM I

KCS 5/21/93

PBD 6/25/93

9713514.2577

000115

TMA Inc. REPORT Work Order # A3-01-054

eceived: 01/26/93

Results by Sample

AMPLE ID B07ZP7 FRACTION 01E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1.0	mg/L	1

FORM I

KLA 5/21/93

PBD 6/25/93

9713514.2578

000116

TMA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZP7 FRACTION 01F TEST CODE WCCLPL NAME Anions & Wet Chem. - VB043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

KEA 5/21/93

PBD 6/25/93

9713514.2579

000117

TMA Inc. REPORT Work Order # A3-01-054

eceived: 01/26/93

Results by Sample

AMPLE ID B07267 FRACTION 03C TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	7.41 ~~7.6~~ (J)	mg/L	0.2
Fluoride	300.0	0.381 ~~0.6~~ (J)	mg/L	0.1
Phosphate	300.0	<0.4 J	mg/L (R)	0.4
pH	150.1	7.8 J	pH	0.1
Sulfate	300.0	11.2 ~~41~~ (J)	mg/L	1
Elect. Conductivity	120.1	326	umho/cm	6

FORM I

5/31/93

5/26/93

6/25/93

9713514.2580

000118

TMA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZG7 FRACTION 03D TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	100	mg/L	2
Tot. Dissolved Solids	160.1	244 J	mg/L	5

FORM I

RLY 5/21/93

6/25/93

9713514.2581

000119

TMA Inc. REPORT Work Order # A3-01-054

eceived: 01/26/93

Results by Sample

AMPLE ID B07ZG7 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - WE043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	ND	mg/L	1

FORM I

KLW 5/21/93

PBD 6/25/93

9713514.2582

000120

TMA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZG7 FRACTION 03F TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	~~<~~0.05 U	mg/L	0.05
COD	410.0	~~<~~5 U	mg/L	5

FORM I

KGM 5/21/93

PBD 6/25/93

9713514.2583

000121

TMA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B072K2 FRACTION OSC TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/24/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	9.0 (J)	mg/L	0.2
Fluoride	300.0	~~0.6~~ 0.377 (J)	mg/L	0.1
Phosphate	300.0	<0.4 J	mg/L (R)	0.4
pH	150.1	8.0 J	pH	0.1
Sulfate	300.0	~~47~~ 46.8 (J)	mg/L	1
Elect. Conductivity	120.1	373	umho/cm	6

FORM I

KWD 5/21/93

5/26/93 fm

6/25/93

TNA Inc. REPORT Work Order # A3-01-054

eceived: 01/26/93 Results by Sample

AMPLE ID B07ZK2 FRACTION 05D TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/24/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	109	mg/L	2
Tot. Dissolved Solids	160.1	246 J	mg/L	5

FORM I

KLW 5/21/93

PBD 6/25/93

9713514.2585

000123

TMA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZK2 FRACTION 05E TEST CODE WCCLPL NAME Anions & Wet Chem. - VB043

Date & Time Collected 01/24/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1 U	mg/L	1

FORM I

KWS 5/21/93

PBD 6/25/93

TRA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZK2 FRACTION 05F TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/24/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

KEB 5/21/93

PBD 6/25/93

9713514.2587

000125

TMA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZV7 FRACTION 09C TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/24/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	9.28 ~~9.3~~ (J)	mg/L	0.2
Fluoride	300.0	0.35 ~~0.4~~ (J)	mg/L	0.1
Phosphate	300.0	<0.4 ~~J~~	mg/L (R)	0.4
pH	150.1	8.0 J	pH	0.1
Sulfate	300.0	46.3 ~~46~~ (J)	mg/L	1
Elect. Conductivity	120.1	390	umho/cm	6

FORM I

KLW 5/21/93

5/26/93 BM

PBD 6/25/93

9713514.2588

000126

TMA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZV7 FRACTION 09D TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/24/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	107	mg/L	2
Tot. Dissolved Solids	160.1	270 J	mg/L	5

FORM I

KED 5/21/93

PBD 6/25/93

9713514.2589

000127

TMA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZV7 FRACTION 09E TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/24/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	ND	mg/L	1

FORM I

KLW 5/21/93

PSD 6/25/93

9713514.2590

000128

TMA Inc. REPORT Work Order # A3-01-054

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZV7 FRACTION 09F TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/24/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

KLW 5/21/93

PSD 6/25/93

9713514.2591

000035

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZM2 FRACTION 09C TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/24/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	9.76 ~~9.8~~ (J)	mg/L	0.2
Fluoride	300.0	0.322 ~~0.3~~ (J)	mg/L	0.1
Phosphate	300.0	<0.4 J	mg/L (R)	0.4
pH	150.1	7.9 J	pH	0.1
Sulfate	300.0	48.3 ~~48~~ (J)	mg/L	1
Elect. Conductivity	120.1	407	umho/cm	6

FORM I

KWD 5/31/93

5/26/93

PBD 6/25 PR

9713514.2592

000036

TRA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZM2 FRACTION 09D TEST CODE WCCLPL NAME Anions & Wet Chem. - WR043

Date & Time Collected 01/24/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	108	mg/L	2
Tot. Dissolved Solids	160.1	218 J	mg/L	5

FORM I

KCB 5/21/93

PBD 6/25/93

9713514.2593

000037

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZM2 FRACTION 09F TEST CODE VCCLPL NAME Anions & Wet Chem. - VB043

Date & Time Collected 01/24/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

5/31/93

6/25/93

9713514.2594

000031

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZM2 FRACTION 07C TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	10.1 (J)	mg/L	0.2
Fluoride	300.0	0.5 (J)	mg/L	0.1
Phosphate	300.0	<0.4 J	mg/L (R)	0.4
pH	150.1	8.1 J	pH	0.1
Sulfate	300.0	45.4 (J)	mg/L	1
Elect. Conductivity	120.1	393	umho/cm	6

FORM I

KCW 5/21/93

5/26/93 PW

PBD 6/25/93

9713514.2595

000032

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZN2 FRACTION 07D TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	108	mg/L	2
Tot. Dissolved Solids	160.1	259 J	mg/L	5

FORM I

KCD 5/21/93

PBD 6/25/93

9713514.2596

000033

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZN2 FRACTION 07E TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

KEB 5/21/93

1989
6/25/93

9713514.2597

000034

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZN2 FRACTION 07F TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/23/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

5/21/93

PBD 6/25/93

9713514.2598

000038

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZP2 FRACTION 11C TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	11.7 (J)	mg/L	0.2
Fluoride	300.0	~~0.4~~ 0.351 (J)	mg/L	0.1
Phosphate	300.0	<0.4 J	mg/L (R)	0.4
pH	150.1	8.0 J	pH	0.1
Sulfate	300.0	52.1 (J)	mg/L	1
Elect. Conductivity	120.1	394	umho/cm	6

FORM I

KWD 5/21/93

5/26/93 [illegible]

[illegible] 6/25/93

9713514.2599

000039

TMA Inc. REPORT Work Order # A3-01-053

eceived: 01/26/93

Results by Sample

AMPLE ID B07ZP2 FRACTION 11D TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	107	mg/L	2
Tot. Dissolved Solids	160.1	276 J	mg/L	5

FORM I

5/21/93

PBD 6/25/93

9713514.2600

000040

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZP2 FRACTION 11E TEST CODE VCCLPL NAME Anions & Wet Chem. - VW043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	~~<1~~ U	mg/L	1

FORM I

KLB 5/21/93

PBD 6/25/93

9713514.2601

000041

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZP2 FRACTION 11F TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

5/31/93

PBD 6/25/93

9713514.2602

000019

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07Z02 FRACTION 01E TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	11.0 (J)	mg/L	0.2
Fluoride	300.0	~~0.4~~ 0.354 (J)	mg/L	0.1
Phosphate	300.0	<0.4 J	mg/L (R)	0.4
pH	150.1	7.9 J	pH	0.1
Sulfate	300.0	48 (J)	mg/L	1
Elect. Conductivity	120.1	401	umho/cm	6

FORM I

5/31/93

5/26/93 fnd

PBS 6/25/93

9713514.2603

000030

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07Z02 FRACTION 01G TEST CODE VCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	112	mg/L	2
Tot. Dissolved Solids	160.1	271 J	mg/L (R)	5

FORM I

KES 5/21/93

5/26/93 [illegible]

PBD 6/25/93

9713514.2604

000021

TRA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07Z02 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - WR043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1.5	mg/L	1

FORM I

5/21/93

PBD 6/25/93

9713514.2605

000022

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07Z02 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

KWS 5/21/93

PBD 6/25/93

9713514.2606

000023

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZT2 FRACTION 03C TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	~~5.6~~ 5.5 (J)	mg/L	0.2
Fluoride	300.0	~~0.4~~ 0.384 (J)	mg/L	0.1
Phosphate	300.0	<0.4 J	mg/L (R)	0.4
pH	150.1	7.9 J	pH	0.1
Sulfate	300.0	23 (J)	mg/L	1
Elect. Conductivity	120.1	323	umho/cm	6

FORM I

KWD 5/21/93

5/26/93 fm

RBD 6/25/93

9713514.2607

000024

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZT2 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	115	mg/L	2
Tot. Dissolved Solids	160.1	183 J	mg/L	5

FORM I

5/21/93

PBD 6/25/93

9713514.2608

000025

TRA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZT2 FRACTION 03F TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1 U	mg/L	1

FORM I

5/31/93

PBD 6/25/93

9713514.2609

000026

TMA Inc. REPORT Work Order # A3-01-053

'eceived: 01/26/93

Results by Sample

AMPLE ID B07ZT2 FRACTION 03W TEST CODE VCCLPL NAME Anions & Wet Chem. - VW043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

5/21/93

PBD 6/25/93

9713514.2610

000027

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZT7 FRACTION 05E TEST CODE WCCLPL NAME Anions & Wet Chem. - WB043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	7.7 (J)	mg/L	0.2
Fluoride	300.0	0.272 ~~0.3~~ (J)	mg/L	0.1
Phosphate	300.0	<0.4 J	mg/L (R)	0.4
pH	150.1	8.0 J	pH	0.1
Sulfate	300.0	32.4 (J)	mg/L	1
Elect. Conductivity	120.1	327	umho/cm	6

FORM I

KCS 5/21/93

5/26/93 fm

PBD 6/25/93

9713514.2611

000028

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZT7 FRACTION 05F TEST CODE VCCLPL NAME Anions & Wet Chem. - VH063

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	103	mg/L	2
Tot. Dissolved Solids	160.1	200 J	mg/L	5

FORM I

KCB 5/31/93

PBD 6/25/93

9713514.2612

000029

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZT7 FRACTION 05G TEST CODE WCCLPL NAME Anions & Wet Chem. - WK043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1 U	mg/L	1

FORM I

5/21/93

6/25/93

9713514.2613

000030

TMA Inc. REPORT Work Order # A3-01-053

Received: 01/26/93

Results by Sample

SAMPLE ID B07ZT7 FRACTION 05W TEST CODE WCCLPL NAME Anions & Wet Chem. - WW043

Date & Time Collected 01/22/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

KEW 5/21/93

RBA 6/25/93

9713514.2614

000012

TMA Inc. REPORT Work Order # A3-01-049

Received: 01/25/93

Results by Sample

SAMPLE ID B07ZH7 FRACTION 01E TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

B07ZH7

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	8.1(J)	mg/L	0.2
Fluoride	300.0	0.258 ~~0.3~~(J)	mg/L	0.1
Phosphate	300.0	<0.4 R	mg/L	0.4
pH	150.1	8.0 J	pH	0.1
Sulfate	300.0	43 (J)	mg/L	1
Elect. Conductivity	120.1	379	umho/cm	6

FORM I

5/21/93

5/26/93

6/25/93

9713514.2615

000013

TMA Inc. REPORT Work Order # A3-01-049

Received: 01/25/93

Results by Sample

SAMPLE ID B07ZN7 FRACTION 01G TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	110	mg/L	2
Tot. Dissolved Solids	160.1	253 J	mg/L	5

FORM I

KED 5/21/93

PBD 6/25/93

TMA Inc. REPORT Work Order # A3-01-049

Received: 01/25/93

Results by Sample

SAMPLE ID B07ZN7 FRACTION 01I TEST CODE VCCLPL NAME Anions & Wet Chem. - VM043

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1 UJ	mg/L	1

FORM I

KLB 5/21/93

PBD 6/25/93

TMA Inc. REPORT Work Order # A3-01-049

Received: 01/25/93

Results by Sample

SAMPLE ID B07ZN7 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	0.40	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

KWG 5/21/93

PRD 6/25/93

9713514.2618

000016

TMA Inc. REPORT Work Order # A3-01-049

Received: 01/25/93

Results by Sample

SAMPLE ID B072J7 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	9.9 (J)	mg/L	0.2
Fluoride	300.0	~~0.3~~ 0.314 (J)	mg/L	0.1
Phosphate	300.0	<0.4 J	mg/L (R)	0.4
pH	150.1	8.0 J	pH	0.1
Sulfate	300.0	49.1 (J)	mg/L	1
Elect. Conductivity	120.1	392	umho/cm	6

FORM I

KLB 5/21/93

5/26/93 AM

PBD 6/25/93

9713514.2619

00001

TMA Inc. REPORT Work Order # A3-01-049

Received: 01/25/93

Results by Sample

SAMPLE ID B07ZJ7 FRACTION 03G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	108	mg/L	2
Tot. Dissolved Solids	160.1	267 J	mg/L	5

FORM I

KWS 5/21/93

PBD 6/25/93

9713514.2620

000018

TMA Inc. REPORT Work Order # A3-01-049

Received: 01/25/93

Results by Sample

SAMPLE ID B072J7 FRACTION 03H TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1 U	mg/L	1

FORM I

KTS 5/21/93

PBD 6/25

9713514.2621

000019

TMA Inc. REPORT Work Order # A3-01-049

Received: 01/25/93

Results by Sample

SAMPLE ID B07ZJ7 FRACTION 03J TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

KCB 5/21/93

PBD 6/25/93

9713514.2622

000020

TMA Inc. REPORT Work Order # A3-01-049

Received: 01/25/93

Results by Sample

SAMPLE ID B07ZS2 FRACTION 05C TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	7.0(J)	mg/L	0.2
Fluoride	300.0	0.611 ~~0.6~~(J)	mg/L	0.1
Phosphate	300.0	<0.4 ~~J~~	mg/L R	0.4
pH	150.1	8.0 J	pH	0.1
Sulfate	300.0	38.1(J)	mg/L	1
Elect. Conductivity	120.1	381	umho/cm	6

FORM I

KHD 5/31/93

5/26/93 JM

PBD 6/25/93

TMA Inc. REPORT Work Order # A3-01-049

Received: 01/25/93

Results by Sample

SAMPLE ID B072S2 FRACTION 05D TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	114	mg/L	2
Tot. Dissolved Solids	160.1	246 J	mg/L	5

FORM I

KHW 5/21/93

PBD 6/25/93

9713514.2624

TMA Inc. REPORT Work Order # 000022

Received: 01/25/93

Results by Sample

SAMPLE ID B07ZS2 FRACTION 05E TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	~~1~~ U	mg/L	1

FORM I

5/31/93

PBD
6/25/93

9713514.2625

000023

TMA Inc. REPORT Work Order # A3-01-049

Received: 01/25/93

Results by Sample

SAMPLE ID B07ZS2 FRACTION 05F TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/21/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

KW 5/21/93

PBD 6/25/93

9713514.2626

000011

TMA Inc. REPORT Work Order # A3-01-045

eceived: 01/222/93 Results by Sample

AMPLE ID B07ZG2 FRACTION 01E TEST CODE WCCLPL NAME Anions & Wet Chem. - WR043

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	1.6 (J)	mg/L	0.2
Fluoride	300.0	0.5 (J)	mg/L	0.1
Phosphate	300.0	<0.4 (R)	mg/L	0.4
pH	150.1	8.0 J	pH	0.1
Sulfate	300.0	10 (J)	mg/L	1
Elect. Conductivity	120.1	287	umho/cm	6

FORM I

KLS 5/21/93

5/26/93

BBJ 6/25/93

9713514.2627

000012

TMA Inc. REPORT Work Order # A3-01-045

Received: 01/22/93

Results by Sample

SAMPLE ID B07ZG2 FRACTION 01G TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	124	mg/L	2
Tot. Dissolved Solids	160.1	179	mg/L	5

FORM I

5/21/93

6/25/93

TMA Inc. REPORT Work Order # A3-01-045

Received: 01/22/93

Results by Sample

SAMPLE ID B07ZG2 FRACTION 01I TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1 U	mg/L	1

FORM I

KWS 5/31/93

PBD 6/25/93

9713514.2629

000014

TMA Inc. REPORT Work Order # A3-01-045

Received: 01/22/93

Results by Sample

SAMPLE ID B07ZG2 FRACTION 01K TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<5 U	mg/L	5

FORM I

KWD 5/21/93

5/26/93 AW

PBD 6/25/93

9713514.2630

000013

TMA Inc. REPORT Work Order # A3-01-045

Received: 01/22/93

Results by Sample

SAMPLE ID B07ZJ2 FRACTION 03E TEST CODE VCCLPL NAME Anions & Wet Chem. - VH063

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	9.9(J)	mg/L	0.2
Fluoride	300.0	<0.1(UJ)	mg/L	0.1
Phosphate	300.0	<0.4(R)	mg/L	0.4
pH	150.1	8.0 J	pH	0.1
Sulfate	300.0	53(J)	mg/L	1
Elect. Conductivity	120.1	376	umho/cm	6

FORM I

KLW 5/21/93

5/26/93 fm

PBD 6/25/93

TNA Inc. REPORT Work Order # A3-01-045

:eceived: 01/22/93 Results by Sample

AMPLE ID B07ZJ2 FRACTION 03G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	97	mg/L	2
Tot. Dissolved Solids	160.1	224	mg/L	5

FORM I

KLB 5/21/93

PB 6/25/93

TMA Inc. REPORT Work Order # A3-01-045

Received: 01/22/93

Results by Sample

SAMPLE ID B07ZJ2 FRACTION 03H TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	~~<1~~ U	mg/L	1

FORM I

5/21/93

PB
6/25/93

9713514.2633

000018

TMA Inc. REPORT Work Order # A3-01-045

Received: 01/22/93

Results by Sample

SAMPLE ID B07ZJ2 FRACTION 03J TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	~~<~~0.05 (UJ)	mg/L	0.05
COD	410.0	~~<~~5 U	mg/L	5

FORM I

5/21/93

5/26/93 fri

PBD 6/25/93

9713514.2634

000019

TMA Inc. REPORT Work Order # A3-01-045

Received: 01/22/93

Results by Sample

SAMPLE ID B07ZY4 FRACTION 05C TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.1 (J)	mg/L	0.2
Fluoride	300.0	0.4 (J)	mg/L	0.1
Phosphate	300.0	<0.4 (R)	mg/L	0.4
pH	150.1	7.9 J	pH	0.1
Sulfate	300.0	33 (J)	mg/L	1
Elect. Conductivity	120.1	320	umho/cm	6

FORM I

KEW 5/21/93

RBD 6/25/93

TMA Inc. REPORT Work Order # A3-01-045

Received: 01/22/93

Results by Sample

SAMPLE ID B072Y4 FRACTION 05D TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	123	mg/L	2
Tot. Dissolved Solids	160.1	218	mg/L	5

FORM I

5/21/93

PBD 6/25/93

TMA Inc. REPORT Work Order # A3-01-045

eceived: 01/22/93 Results by Sample

AMPLE ID B07ZY4 FRACTION 05E TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1 U	mg/L	1

FORM I

5/21/93

PBD 6/25/93

9713514.2637

TMA Inc. REPORT Work Order # ~~WS-010645~~ 090022

Received: 01/22/93 Results by Sample

SAMPLE ID B07ZZY4 FRACTION 05F TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 01/19/93 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	~~<0.05~~ (U)	mg/L	0.05
COD	410.0	~~<5~~ U	mg/L	5

FORM I

KHD 5/24/93

5/26/93 fn

PBD 6/25/93

9713514.2638

237

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZG3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N SAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-12S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U		F
7440-39-3	Barium	70.9	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	25200			P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	2.4	~~B~~ U		F
7439-95-4	Magnesium	9070			P
7439-96-5	Manganese	71.3			P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5348.00 ~~0.00~~			P
7782-49-2	Selenium	16.5	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	13100			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	31.8	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

6/26/93

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

5/29/93

9713514.2639

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07ZG8

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-08S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	33.6	~~B~~ U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U		F
7440-39-3	Barium	40.9	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	40000			P
7440-47-3	Chromium	21.4			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	6.8	B U		P
7439-92-1	Lead	1.2	U		F
7439-95-4	Magnesium	9800			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	3986.0 ~~0.80~~	B		P
7782-49-2	Selenium	16.5	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	11200			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	10.4	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

5/26/93

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR 5/20/93 Artifacts:

Comments:

03

9713514.2640

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZH8

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N5AS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-15S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ.	F
7440-39-3	Barium	31.2	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	49000			P
7440-47-3	Chromium	5.0	B		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	1.2	U		F
7439-95-4	Magnesium	7000			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	2539.~~00.00~~	B		P
7782-49-2	Selenium	16.5	U	WNJ.	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	13300			P
7440-28-0	Thallium	2.6	U	WJ.	F
7440-62-2	Vanadium	4.6	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

7/26/93 RN

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

5/29/93

Comments:

04

6/25/93

FORM I - IN ILM02.1

9713514.2641

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07ZJ3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N5AS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-13S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ	F
7440-39-3	Barium	31.2	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	48900			P
7440-47-3	Chromium	13.2			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	6.0		U	F
7439-95-4	Magnesium	7550			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5/26/93 1927.0 ~~0.001~~	B		P
7782-49-2	Selenium	16.5	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	9630			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	4.0	U		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR 5/30/93 Artifacts:

Comments:

05

FORM I - IN 6/25/93 ILM02.1

9713514.2642

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07ZJ8

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-16S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ	F
7440-39-3	Barium	31.2	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	52500			P
7440-47-3	Chromium	11.3			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	17.3	~~B~~ U		P
7439-92-1	Lead	1.2	U		F
7439-95-4	Magnesium	7010			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	~~4000.00~~ 490.00	B		P
7782-49-2	Selenium	3.3	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	11100			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	4.7	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

5/26/93

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

5/26/93

Comments:

6/25/93

03

FORM I - IN ILM02.1

9713514.2643

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07ZK3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,NSAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-09S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.9	B	WJ	F
7440-39-3	Barium	25.2	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	51600			P
7440-47-3	Chromium	12.6			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	3.3		U	F
7439-95-4	Magnesium	8050			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	~~4598.00.00~~	B		P
7782-49-2	Selenium	16.5	~~U~~	EN R	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	11600			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	7.8	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

5/26/93

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR 5/26/93 Artifacts:

Comments:

07

6/25/93

9713514.2644

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZM3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N SAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-05S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ	F
7440-39-3	Barium	34.8	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	52300			P
7440-47-3	Chromium	10.1			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	16.9	~~B~~ U		P
7439-92-1	Lead	1.2	U	WJ	F
7439-95-4	Magnesium	8010			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	5/26/93 0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5101.0 ~~0.00~~			P
7782-49-2	Selenium	3.3	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	11900			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	7.2	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR 5/26/93 Artifacts:

Comments:

03

6/25/9-

FORM I - IN ILM02.1

9713514.2645

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07ZN3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-04S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	33.6	~~B~~	U	P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ	F
7440-39-3	Barium	33.6	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	53900			P
7440-47-3	Chromium	11.3			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	17.3	~~B~~	U	P
7439-92-1	Lead	1.2	~~B~~	WUJ	F
7439-95-4	Magnesium	6800			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5106.0 ~~0.001~~			P
7782-49-2	Selenium	16.5	U	MWNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	11700			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	7.2	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

5/30/93

03

6/25/93

FORM I - IN ILM02.1

9713514.2646

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZP3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N3AS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-06S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	30.1	~~B~~ U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ	F
7440-39-3	Barium	13.2	~~B~~ U		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	46900			P
7440-47-3	Chromium	16.4			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	30.1	~~B~~ U		P
7439-92-1	Lead	1.2	U		F
7439-95-4	Magnesium	10300			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5/26/93 JN 6744.0 ~~0.00~~			P
7782-49-2	Selenium	16.5	U	ENJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	13100			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	12.4	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

3/24/93

10

6/25/93

9713514.2647

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZP8

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-07S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ	F
7440-39-3	Barium	21.6	~~B~~	U	P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	48000			P
7440-47-3	Chromium	13.8			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	14.7	~~B~~	U	P
7439-92-1	Lead	1.5	~~B~~	WUJ	F
7439-95-4	Magnesium	11100			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5/26/93 6340.0 ~~0.00~~			P
7782-49-2	Selenium	3.3	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	12400			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	10.9	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

6/25/93

FORM I - IN ILM02.1

9713514.2648

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZQ3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-01S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	29.6	~~B~~	U	P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ	F
7440-39-3	Barium	21.6	~~B~~	U	P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	48200			P
7440-47-3	Chromium	11.4			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	644			P
7439-92-1	Lead	1.2	U	WJ	F
7439-95-4	Magnesium	11100			P
7439-96-5	Manganese	9.8	~~B~~	U	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5/26/93 6169.0 ~~0.00~~			P
7782-49-2	Selenium	3.3	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	12300			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	10.5	B		P
7440-66-6	Zinc	9.1	~~B~~	U	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR 5/20/93 Artifacts:

Comments:

6/25/93

12

FORM I - IN ILM02.1

9713514.2649

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZS3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-17S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ	F
7440-39-3	Barium	14.4	~~B~~ U		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	36700			P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	1.3	~~B~~	WUJ	F
7439-95-4	Magnesium	10900			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5771.~~0.001~~			P
7782-49-2	Selenium	3.3	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	21400			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	14.9	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

5/26/93 BW

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

KWS 5/20/93

Comments:

13

RBD 6/25/93

FORM I - IN ILM02.1

9713514.2650

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07ZT3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N5AS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-02S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U		F
7440-39-3	Barium	22.8	~~B~~ U		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	35000			P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	15.0	~~B~~ U		P
7439-92-1	Lead	1.2	U		F
7439-95-4	Magnesium	9300			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5571.0 ~~0.001~~			P
7782-49-2	Selenium	16.5	U	WN	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	14300			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	15.4	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

5/26/93

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

5/30/93

Comments:

14

PBD 6/25/93

9713514.2651

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZT8

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N SAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-03S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	31.3	~~B~~ U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U		F
7440-39-3	Barium	20.4	~~B~~ U		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	38500			P
7440-47-3	Chromium	13.8			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	1.2	U		F
7439-95-4	Magnesium	9710			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5/26/93 4062.0 ~~0.001~~	B		P
7782-49-2	Selenium	3.3	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	8230			P
7440-28-0	Thallium	2.6	U	WJ.	F
7440-62-2	Vanadium	6.7	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR 5/30/93 Artifacts:

Comments:

6/25/93

15

FORM I - IN ILM02.1

9713514.2652

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07ZV8

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-11S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ	F
7440-39-3	Barium	28.8	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	51800			P
7440-47-3	Chromium	10.7			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	2.5	~~B~~ U		F
7439-95-4	Magnesium	8080			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4580, ~~00.00~~	B		P
7782-49-2	Selenium	16.5	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	11600			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	7.8	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

13

FORM I - IN ILM02.1

9713514.2653

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZY5

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N SAS No.: SDG No.: B07ZG3

Matrix (soil/water): WATER Lab Sample ID: 01158-14S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.7	~~B~~ U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ	F
7440-39-3	Barium	14.4	~~B~~ U		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	33000			P
7440-47-3	Chromium	13.8		J	P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	63.2	~~B~~ U		P
7439-92-1	Lead	2.1	~~B~~ U		F
7439-95-4	Magnesium	9250			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5500.0 ~~0.00~~			P
7782-49-2	Selenium	16.5	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	15200			P
7440-28-0	Thallium	2.6	U	WJ	F
7440-62-2	Vanadium	16.0	B		P
7440-66-6	Zinc	2.5	U		P
	Cyanide				NR

5/26/93

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

5/20/93

Comments:

6/25/93

17

FORM I - IN3 ILM02.1

9713514.2654

2137

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07ZG2

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-12S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	4.3	~~B~~	U	F
7440-39-3	Barium	66.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	23500			P
7440-47-3	Chromium	7.4	B		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	59.8	~~B~~	U	P
7439-92-1	Lead	2.8	B		F
7439-95-4	Magnesium	8410			P
7439-96-5	Manganese	74.7			P
7439-97-6	Mercury	0.14	B		CV
7440-02-0	Nickel	4.5	B		P
7440-09-7	Potassium	4990	B		P
7782-49-2	Selenium	19.0	~~U~~	WN R	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	12500			P
7440-28-0	Thallium	1.9	U	WN J	F
7440-62-2	Vanadium	26.4	B		P
7440-66-6	Zinc	5.8	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

5/19/93

Comments:

002

6/24/93

FORM I - IN ILM02.1

9713514.2655

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07ZG7

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N SAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-08S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.6	B		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.4	~~B~~	W UJ	F
7440-39-3	Barium	36.2	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	37800			P
7440-47-3	Chromium	22.0			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	55.9	~~B~~	U	P
7439-92-1	Lead	38.4			F
7439-95-4	Magnesium	9240			P
7439-96-5	Manganese	1.1	~~B~~	U	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	3720	B		P
7782-49-2	Selenium	3.8	~~U~~	WN R	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	10700			P
7440-28-0	Thallium	1.9	U	WN J	F
7440-62-2	Vanadium	6.4	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

5/19/93

Comments:

003

6/24/93

9713514.2656

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07ZH7

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N5AS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-15S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	2.6	~~B~~	W UJ	F
7440-39-3	Barium	32.9	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	49100			P
7440-47-3	Chromium	5.8	B		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	26.0	~~B~~	U	P
7439-92-1	Lead	1.5	U		F
7439-95-4	Magnesium	6930			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	2600	B		P
7782-49-2	Selenium	19.0	~~N~~	EN R	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	13600			P
7440-28-0	Thallium	1.9	U	WN J	F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR KGS 5/19/93 Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

004

RBS 6/24/93

FORM I - IN ILM02.1

9713514.2657

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07ZJ2

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-13S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	28.0	B		P
7440-36-0	Antimony	18.6	~~B~~	U	P
7440-38-2	Arsenic	2.3	~~B~~	WUJ	F
7440-39-3	Barium	33.3	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	48200			P
7440-47-3	Chromium	14.9			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	20.2	~~B~~	U	P
7439-92-1	Lead	1.5	U		F
7439-95-4	Magnesium	7390			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	1760	B		P
7782-49-2	Selenium	3.8	~~U~~	WNR	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	9560			P
7440-28-0	Thallium	1.9	U	WNJ	F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR KWS Texture:

Color After: COLORLESS Clarity After: CLEAR 5/19/93 Artifacts:

Comments:

BB 6/24/93

005

9713514.2658

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZJ7

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-16S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.7	~~B~~	W UJ	F
7440-39-3	Barium	30.1	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	49400			P
7440-47-3	Chromium	10.5			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	57.2	~~B~~	U	P
7439-92-1	Lead	1.5	U		F
7439-95-4	Magnesium	6570			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	3870	B		P
7782-49-2	Selenium	3.8	~~U~~	WNR	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	10600			P
7440-28-0	Thallium	1.9	U	WNJ	F
7440-62-2	Vanadium	5.0	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

5/19/93

Comments:

006

6/24/93

FORM I - IN ILM02.1

9713514.2659

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZK2

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-09S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.3	~~B~~	WUJ	F
7440-39-3	Barium	22.6	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	49100			P
7440-47-3	Chromium	9.8	B		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	14.0	~~B~~	U	P
7439-92-1	Lead	1.5	U		F
7439-95-4	Magnesium	7630			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4540	B		P
7782-49-2	Selenium	3.8	~~U~~	WNR	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	11200			P
7440-28-0	Thallium	1.9	U	WNJ	F
7440-62-2	Vanadium	6.0	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

RGS 5/19/93

Comments:

007

6/24/93

FORM I - IN ILM02.1

9713514.2660

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZM2

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N5AS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-05S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.6	~~B~~ U		P
7440-38-2	Arsenic	2.7	~~B~~ U		F
7440-39-3	Barium	32.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	50000			P
7440-47-3	Chromium	19.3			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	53.8	~~B~~ U		P
7439-92-1	Lead	1.5	U		F
7439-95-4	Magnesium	7590			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	3.9	B		P
7440-09-7	Potassium	4730	B		P
7782-49-2	Selenium	19.0	~~U~~	WNR	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	11400			P
7440-28-0	Thallium	1.9	U	WNJ	F
7440-62-2	Vanadium	5.1	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

KLB 5/19/93

Comments:

BD 6/24/93

008

9713514.2661

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07ZN2

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N SAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-04S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	4.2	~~B~~	WUJ	F
7440-39-3	Barium	30.3	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	49700			P
7440-47-3	Chromium	11.2			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	40.7	~~B~~	U	P
7439-92-1	Lead	1.5	U		F
7439-95-4	Magnesium	6180			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	3.6	B		P
7440-09-7	Potassium	4700	B		P
7782-49-2	Selenium	3.8	~~U~~	WNR	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	10800			P
7440-28-0	Thallium	1.9	U	WNJ	F
7440-62-2	Vanadium	4.7	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

KLW 5/19/93

Comments:

BSJ 6/24/93

009

FORM I - IN ILM02.1

9713514.2662

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07ZP2

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N SAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-06S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	5.3	~~B~~	WUJ	F
7440-39-3	Barium	10.5	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	47700			P
7440-47-3	Chromium	16.3			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	30.0	~~B~~	U	P
7439-92-1	Lead	1.5	U		F
7439-95-4	Magnesium	10200			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	6310			P
7782-49-2	Selenium	19.0	~~U~~	WNR	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	12600			P
7440-28-0	Thallium	1.9	U	WNJ	F
7440-62-2	Vanadium	12.1	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR RWS 5/19/93 Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

6/24/93

010

FORM I - IN ILM02.1

9713514.2663

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZP7

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112, NSAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-07S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	4.6	~~B~~	W UJ	F
7440-39-3	Barium	16.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	46500			P
7440-47-3	Chromium	21.7			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	70.0	~~B~~ U		P
7439-92-1	Lead	1.5	U		F
7439-95-4	Magnesium	10700			P
7439-96-5	Manganese	1.4	~~B~~ U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	7.3	B		P
7440-09-7	Potassium	6150			P
7782-49-2	Selenium	3.8	~~U~~	WN R	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	12200			P
7440-28-0	Thallium	1.9	U	WN J	F
7440-62-2	Vanadium	8.4	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

5/19/93

Comments:

6/24/93

011

9713514.2664

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZQ2

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N5AS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-01S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.5	~~B~~	U	F
7440-39-3	Barium	16.2	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	46100			P
7440-47-3	Chromium	16.6			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	3.0	~~B~~	U	P
7439-89-6	Iron	55.2	~~B~~	U	P
7439-92-1	Lead	2.1	B	WJ	F
7439-95-4	Magnesium	10500			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.14	B		CV
7440-02-0	Nickel	4.5	B		P
7440-09-7	Potassium	5800			P
7782-49-2	Selenium	19.0	~~U~~	WN R	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	11700			P
7440-28-0	Thallium	1.9	U	WNJ	F
7440-62-2	Vanadium	8.7	B		P
7440-66-6	Zinc	13.9	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

KGB 5/19/93

Comments:

BD 6/24/93

012

9713514.2665

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07ZS2

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N SAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-17S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	19.3	~~B~~ U		P
7440-38-2	Arsenic	5.0	~~B~~	WUJ	F
7440-39-3	Barium	11.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	35700			P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	6.5	U		P
7439-92-1	Lead	2.1	B		F
7439-95-4	Magnesium	10600			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	5760			P
7782-49-2	Selenium	19.0	~~U~~	NR	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	21300			P
7440-28-0	Thallium	1.9	U	WNJ	F
7440-62-2	Vanadium	12.7	B		P
7440-66-6	Zinc	39.2			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR KGB 5/19/93 Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

BSD 6/24/93

013

FORM I - IN ILM02.1

9713514.2666

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZT2

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,NSAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-02S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	29.2	~~B~~ U		P
7440-38-2	Arsenic	5.6	~~B~~ U		F
7440-39-3	Barium	19.8	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	32000			P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	14.0	~~B~~ U		P
7439-92-1	Lead	2.2	B		F
7439-95-4	Magnesium	8440			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4940	B		P
7782-49-2	Selenium	3.8	~~U~~	WNR	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	13200			P
7440-28-0	Thallium	1.9	U	WNJ	F
7440-62-2	Vanadium	10.0	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

5/19/93

Comments:

6/24/93

014

FORM I - IN ILM02.1

9713514.2667

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZT7

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N SAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-03S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	17.9	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	37200			P
7440-47-3	Chromium	9.2	B		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	14.7	~~B~~ U		P
7439-92-1	Lead	1.5	U		F
7439-95-4	Magnesium	9320			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	3940	B		P
7782-49-2	Selenium	3.8	~~U~~	MWN R	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	8020			P
7440-28-0	Thallium	1.9	U	WN J	F
7440-62-2	Vanadium	3.4	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR KWS 5/19/93 Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

PBS 6/24/93

015

FORM I - IN ILM02.1

9713514.2668

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07ZV7

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N SAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-11S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	4.7	~~B~~	W UJ	F
7440-39-3	Barium	22.1	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	50600			P
7440-47-3	Chromium	9.2	B		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	12.4	~~B~~ U		P
7439-92-1	Lead	1.5	U		F
7439-95-4	Magnesium	7840			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4710	~~B~~		P
7782-49-2	Selenium	19.0	~~U~~	N R	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	11600			P
7440-28-0	Thallium	1.9	U	WN J	F
7440-62-2	Vanadium	4.7	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR KGS 5/19/93 Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

6/24/93

016

FORM I - IN ILM02.1

9713514.2669

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07ZY4

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N301112,N SAS No.: SDG No.: B07ZG2

Matrix (soil/water): WATER Lab Sample ID: 01156-14S

Level (low/med): LOW Date Received: 01/26/93

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.8	B	W UJ	F
7440-39-3	Barium	12.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	33400			P
7440-47-3	Chromium	11.5		J	P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	63.1	B	U	P
7439-92-1	Lead	2.5	B		F
7439-95-4	Magnesium	9290			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	5690			P
7782-49-2	Selenium	19.0	U	EN R	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	15600			P
7440-28-0	Thallium	1.9	U	WN J	F
7440-62-2	Vanadium	14.4	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		CA

5/26/93 fm

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR 5/14/93 Artifacts:

Comments:

017

9713514.2670

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZH7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/25/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/03/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

BD 6/23/93

DKW 5/20/93

9713514.2671

1D

EPA SAMPLE NO.

B07ZJ7

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/25/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/03/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DKW 5/20/93

PBJ 6/23/93

9713514.2672

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZS2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/25/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/03/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DKW 5/20/93

PBD 6/23/93

9713514.2673

237

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000075

B07ZG7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/28/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/11/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

6/23/93 DKW 5/10/93

9713514.2674

000076

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZK2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/28/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/11/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

BJ 6/23/93

DKW 5/20/93

9713514.2675

000077

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZM2

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

atrix: (soil/water) WATER Lab Sample ID: A301053-09B

ample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Moisture: _____ decanted: (Y/N) ___ Date Received: 01/26/93

xtraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/28/93

oncentrated Extract Volume: 10000 (uL) Date Analyzed: 02/11/93

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RBD 6/23/93

DKW 5/20/93

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZN2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/28/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/11/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

5/20/93 DRW

RD 6/23/93

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZP2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/28/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/11/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

6/23/93

DKW 5/20/95

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZP7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/28/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/11/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

BD 6/23/93

DKW 5/20/93

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZQ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/28/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/11/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

BJ 6/23/93 DKW 5/20/93

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZT2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/28/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/11/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

6/23/93

DKW 5/20/93

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZT7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/28/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/11/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

6/23/93 DKW 5/20/93

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZV7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/28/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/11/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

6/23/93

DEW 5/30/93

9713514.2683

1D

EPA SAMPLE NO.

B07ZG2

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/22/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/25/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/02/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DKW 5/20/93

RD 6/23/93

9713514.2684

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000027
EPA SAMPLE NO.

B07ZJ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/22/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/25/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/02/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DKW 5/20/93

PBJ 6/23/93

9713514.2685

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000028
EPA SAMPLE NO.

B07ZY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 01/22/93

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 01/25/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 02/03/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DCW 5/20/93

PBD 6/23/93

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZH7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S10

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/04/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

5/21/93

6/23/4

9713514.2687

000017

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZH7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S10

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/04/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

5/21/93

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07ZH7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S10

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/04/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

5/31/93

9713514.2689

000019

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZJ7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S13

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/04/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

FORM I SV-1 3/90

1/21/93

9713514.2690

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000020
EPA SAMPLE NO.

B07ZJ7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S13

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/04/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

5/21/93 3/90 6/23/9

9713514.2691

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07EJ7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S13

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/04/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

5/21/93

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZS2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S14

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/04/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

6/21/93
6/22/

9713514.2693

000023

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZS2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S14

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/04/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

3/21/93

9713514.2694

000024

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07ZS2

Lab Name: TMA/ARLI Contract: NHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S14

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/04/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.62	2	J N

KLB 5/21/93

9713514.2695

000045

Y0213J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZG7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S08

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PS 5/21/93

6/23/92

9713514.2696

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000046
EPA SAMPLE NO.

B07ZG7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S08

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	35	~~B~~ U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

PS 5/21/93

(1) - Cannot be separated from Diphenylamine

9713514.2697

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000047
EPA SAMPLE NO.

B07ZG7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S08

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CELLUSOLVE	11.30	10	J
2.	HEXANEDIOIC ACID ISOMER	24.75	5	~~BJ~~ U

PS
5/21/93

9713514.2698

000048

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07ZK2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S09

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PS 5/21/93

6/23/93

9713514.2699

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000049
EPA SAMPLE NO.

B07ZK2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S09

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

PS 5/21/93

9713514.2700

000050
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07ZK2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S09

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.62	3	~~J~~ U

PS
5/21/93

9713514.2704

000051

EPA SAMPLE NO.

B07ZM2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S04

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PS 5/21/93

6/23/93

9713514.2702

1C

000052

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07ZM2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S04

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

DS 5/21/93

9713514.2703

000053
EPA SAMPLE NO.

B07ZM2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S04

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKANE	5.62	3	~~J~~ U

PS
5/21/93

9713514.2704

000054

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZN2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S03

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PB 5/21/93

BD 6/23/92

9713514.2705

1C

000055

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZN2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S03

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

PS 5/21/93

EPA SAMPLE NO.

B07ZN2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S03

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

PS 5/21/93

9713514.2207

000057

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07ZP2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S05

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

FORM I SV-1 3/90

RS 5/21/93

BD 6/23/93

9713514.2708

1C

000058

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07ZP2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S05

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10 ~~5~~	~~BJ~~ U PS spike
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9713514.2709

1F

EPA SAMPLE NO. 000059

B07ZP2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S05

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKANE	5.60	2	~~BJ~~ U

PS 5/21/93

9713514.2710

000060

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZP7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S07

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PS 5/21/93

PBD 6/23/90

9713514.2711

1C

000061

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07ZP7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S07

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

PS 5/21/93

9713514.2712

1F

EPA SAMPLE NO.

B07ZP7

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S07

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.62	3	~~J~~ U

PS 5/21/93

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZQ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S21

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PS 5/21/93

BD 6/23/93

EPA SAMPLE NO.

B07ZQ2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S21

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

PS 5/21/93

EPA SAMPLE NO.

B07ZQ2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S21

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.63	3	~~J~~ U

PS
5/21/93

9713514.2716

000006

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZT2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S24

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PS 5/21/93

BD 6/23/93

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZT2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S24

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

RS 5/24/93

9713514.2718

1F

000068

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07ZT2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30204S24

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.63	3	~~J~~ U

PS
5/21/93

9713514.2719

000069

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZT7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S02

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

DS 5/21/93

9713514.2720

IC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000070
EPA SAMPLE NO.

B07ZT7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S02

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10 ~~5~~	~~BJ~~ U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

PS 5/21/c

(1) - Cannot be separated from Diphenylamine

9713514.2721

000071

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07ZT7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S02

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKANE	5.60	3	~~J~~ U

PS
5/21/93

9713514.2722

1B

000072

EPA SAMPLE NO.

B07ZV7

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S11

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PS 5/21/93

6/23/6

9713514.2723

1C

000073

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07ZV7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S11

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

PS 5/21/93

EPA SAMPLE NO.

B07ZV7

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S11

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/28/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

PS 5/21/93

X02151

9713514.2725

1B

000017
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07ZG2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S13

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PS 5/20/93

6/23/93

9713514.2726

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000018

B07ZG2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S13

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

PS 5/20/93

9713514.2727

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000019
EPA SAMPLE NO.

B07ZG2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S13

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/26/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/05/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.62	3	~~BJ~~ U
2.	CHLOROETHANOL PHOSPHATE ISOM	19.12	66	J

PS
5/20/93

9713514.2728

000020

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZJ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S17

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/25/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/06/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PS 5/20/93

6/23/6

9713514.2729

000021

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZJ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S17

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/25/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/06/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

PS 5/20/93

9713514.2730

000022

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07ZJ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S17

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/25/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/06/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	21.13	5	J

PS
5/20/93

9713514.2731

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000023

B07ZY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S18

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/25/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/06/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PS 5/30/93

6/23/93

9713514.2732

000024

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S18

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 01/25/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/06/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	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	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

PS 5/20/93

9713514.2733

000025

EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07ZY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30205S18

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 01/25/93

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/06/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

PS 5/20/93

9713514.2734

000004

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZH7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B14

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	11	~~B~~ U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/22/K

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07ZH7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B14

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ARW
5/22/93

9713514.2736

000006

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZH9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B15

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	~~4~~	~~B~~
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FBD 5/25/93

ABW 5/22/9

9713514.2737

000007

EPA SAMPLE NO.

B07ZH9

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B15

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ASW 5/28/93

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZJ7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B18

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	1	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

AHW 5/22/9

9713514.2739

000009

EPA SAMPLE NO.

B07ZJ7

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: QU449 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B18

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW 5/22/93

9713514.2740

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000010
EPA SAMPLE NO.

B07ZJ9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B19

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	~~4~~	~~BJ~~
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

PBD 5/25/93

ABW 5/22/9

9713514.2741

000011

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07ZJ9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B19

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/22/93

9713514.2742

000012

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZS2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B20

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/22/93

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07ZS2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B20

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/22/93

9713514.2744

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000014
EPA SAMPLE NO.

B07ZS4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B21

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	~~3~~	~~BJ~~
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

PBN 5/25/93

ABW 5/22/93

9713514.2745

000015

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07ZS4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01049 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301049-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B21

Level: (low/med) LOW Date Received: 01/25/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/22/93

9713514.2746

000005
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07ZG7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R08

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/20/93

9713514.2747

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000006
EPA SAMPLE NO.

B07ZG7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R08

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2748

000007
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07ZG9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R09

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

TB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

AISW 5/20/93

9713514.2749

000008
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07ZG9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R09

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2750

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000009
EPA SAMPLE NO.

B07ZK2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R10

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ASW 5/20/93

9713514.2751

000010
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07ZK2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R10

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2752

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000011
EPA SAMPLE NO.

B07ZK4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R11

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

TB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/20/93

9713514.2753

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000012
EPA SAMPLE NO.

B07ZK4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R11

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

A1342
5/20/93

9713514.2754

000013

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZM2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B29

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	1	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/20/9

9713514.2755

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000014
EPA SAMPLE NO.

B07ZM2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B29

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AB 5/20/93

9713514.2756

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000015

EPA SAMPLE NO.

B07ZM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B30

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

TB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	R
74-83-9	Bromomethane	10	
75-01-4	Vinyl Chloride	10	
75-00-3	Chloroethane	10	
75-09-2	Methylene Chloride	3	
67-64-1	Acetone	10	
75-15-0	Carbon Disulfide	10	
75-35-4	1,1-Dichloroethene	10	
75-34-3	1,1-Dichloroethane	10	
540-59-0	1,2-Dichloroethene (total)	10	
67-66-3	Chloroform	10	
107-06-2	1,2-Dichloroethane	10	
78-93-3	2-Butanone	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon Tetrachloride	10	
75-27-4	Bromodichloromethane	10	
78-87-5	1,2-Dichloropropane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
79-01-6	Trichloroethene	10	
124-48-1	Dibromochloromethane	10	
79-00-5	1,1,2-Trichloroethane	10	
71-43-2	Benzene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
75-25-2	Bromoform	10	
108-10-1	4-Methyl-2-Pentanone	10	
591-78-6	2-Hexanone	10	
127-18-4	Tetrachloroethene	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	
108-88-3	Toluene	10	
108-90-7	Chlorobenzene	10	
100-41-4	Ethylbenzene	10	
100-42-5	Styrene	10	
1330-20-7	Xylene (total)	10	R

PBT 5/26/9

ABW 5/20/9

9713514.2757

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000016
EPA SAMPLE NO.

B07ZM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B30

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2758

000017
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07ZN2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B27

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10 ~~1~~	~~J~~ U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	1	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10 ~~7~~	~~BJ~~ U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

PBJ 5/25/93

ABW 5/20/9:

9713514.2759

000018

EPA SAMPLE NO.

B07ZN2

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B27

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2760

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000019

EPA SAMPLE NO.

B07ZN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B28

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	~~3~~	~~BJ~~
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

TB PBS 5/28/93

ABW 5/20/93

9713514.2761

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000020
EPA SAMPLE NO.

B07ZN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B28

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AB W
5/20/93

9713514.2762

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000021

B07ZP2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-11A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B31

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/04/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	1	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/20/9

9713514.2763

000022
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07ZP2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-11A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B31

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/04/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2764

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000023
EPA SAMPLE NO.

B07ZP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-12A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B32

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/04/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

TB

ABW 5/20/93

9713514.2765

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000024
EPA SAMPLE NO.

B07ZP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-12A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B32

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/04/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2766

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000025

EPA SAMPLE NO.

B07ZP7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R06

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	19	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10 ~~3~~	~~J~~ U
108-10-1	4-Methyl-2-Pentanone	10 ~~6~~	~~J~~ U
591-78-6	2-Hexanone	4	J
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10 ~~5~~	~~J~~ U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

PBD 5/25/93

ABW 5/20/93

9713514.2767

000026

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07ZP7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R06

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2768

000027
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07ZP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R07

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	23	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	13	
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	3	J
108-10-1	4-Methyl-2-Pentanone	5	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	5	J
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

TB

ATBW 5/20/94

9713514.2769

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000028
EPA SAMPLE NO.

B07ZP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R07

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW 5/20/93

9713514.2770

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000029
EPA SAMPLE NO.

B07ZQ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B19

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	1	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10 ~~2~~	~~BJ~~ U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/20/93

9713514.2771

1E

000030

EPA SAMPLE NO.

B07ZQ2

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B19

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2772

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000031
EPA SAMPLE NO.

B07ZQ4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B20

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	X ~~2~~	~~BJ~~ X
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

TB PBS 5/25/93

ABW 5/20/93

9713514.2773

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000032
EPA SAMPLE NO.

B07ZQ4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B20

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2774

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000033

EPA SAMPLE NO.

B07ZT2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B23

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10 ~~1~~	~~BJ~~ U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/20/93

9713514.2775

000034

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07ZT2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B23

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW 5/20/93

9713514.2776

000035

EPA SAMPLE NO.

B07ZT4

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B24

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

TB

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/20/93

9713514.2277

1E

000036

EPA SAMPLE NO.

B07ZT4

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B24

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2778

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000037
EPA SAMPLE NO.

B07ZT7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B25

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

A13W
5/20/9

9713514.2779

000038
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07ZT7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B25

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2780

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000039
EPA SAMPLE NO.

B07ZT9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B26

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

TB

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	~~10~~ 1	BJ
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

PBD 5/25/93

ABW 5/20/93

9713514.2781

000040

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07ZT9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301053-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30203B26

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/03/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AMW
5/20/93

9713514.2782

000041

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZV7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R14

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/20/93

9713514.2783

000042

EPA SAMPLE NO.

B07ZV7

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R14

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2784

000043

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZV9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R15

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

TB

ABW 5/20/9

9713514.2785

000044

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07ZV9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01053 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301054-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30201R15

Level: (low/med) LOW Date Received: 01/26/93

% Moisture: not dec. ____ Date Analyzed: 02/01/93

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW 5/20/93

9713514.2786

000005

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZG2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B04

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U R
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10 ~~1~~	~~BRL~~
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U R

ABW 5/20/93

PBD 5/26/93

9713514.2787

1E

000006

EPA SAMPLE NO.

B07ZG2

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B04

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

6/23/93

9713514.2788

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000007

EPA SAMPLE NO.

B07ZG4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B05

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	~~3~~ 10	~~BJ~~ U
67-64-1	Acetone	10	~~B~~ U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/20/93

TB PBD 5/25/93

9713514.2789

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 000008

B07ZG4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B05

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2790

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000009

EPA SAMPLE NO.

B07ZJ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B12

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10 ~~2~~	~~BJ~~ U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ACW 5/20/93

9713514.2791

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07ZJ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B12

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2792

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000011
EPA SAMPLE NO.

B07ZJ4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B13

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10 ~~6~~	~~BJ~~ X
67-64-1	Acetone	10 ~~6~~	~~BJ~~ X
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ARW 5/24/93

PBD 5/24/93

✓

No sample change 5/24/93

9713514.2793

000012

EPA SAMPLE NO.

B07ZJ4

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B13

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2794

000013

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07ZY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B22

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10 ~~1~~	~~B~~ U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/20/93

PBD 5/24/93

9713514.2795

1E

EPA SAMPLE NO. 000014

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07ZY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B22

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2796

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000015

EPA SAMPLE NO.

B07ZY6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B09

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	~~3~~	~~BJ~~
67-64-1	Acetone	~~7~~	~~BJ~~
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ABW 5/20/93

PAD 5/24/93

No qualifier changed PAD 6/22/

9713514.2797

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

00001G
EPA SAMPLE NO.

B07ZY6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 01045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A301045-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 30126B09

Level: (low/med) LOW Date Received: 01/22/93

% Moisture: not dec. ____ Date Analyzed: 01/26/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ABW
5/20/93

9713514.2798

N301066-08

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZG2

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-08
Dept sample id 7147-008
Received 01/22/93

Client sample id B07ZG2
Matrix WATER
Collected 01/19/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	0.28	0.92	1	3	~~U~~ R	80A
Gross Beta	Beta	5.2	1.3	2	4	J	80B
Uranium 233/234		1.0	0.26	0.1	0.2	J	U
Uranium 235	15117-96-1	0.018	0.036	0.1	0.2	U J	U
Uranium 238	7440-61-1	0.49	0.19	0.1	0.2	J	U
Plutonium 238	13981-16-3	0	0.019	0.05	0.05	U J	PU
Plutonium 239/240		0	0.019	0.05	0.05	U J	PU
Americium 241	14596-10-2	-0.006	0.024	0.04	0.05	U J	AM
Strontium 90	10098-97-2	0.14	0.26	0.8	2	U J	Y
Technetium 99	14133-76-7	0.73	0.72	2	5	U J	TC
Tritium	10028-17-8	120	150	200	400	U	H
Carbon 14	14762-75-5	-23	28	50	50	U J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59	14596-12-4	U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

MRC, 5/24/93

RB 5/26/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

PBD 6/25/93

9713514.2799

N301066-14

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZG7

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-14
Dept sample id 7147-014
Received 01/26/93

Client sample id B07ZG7
Matrix WATER
Collected 01/23/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	0.44	1.5	2	3	~~U~~ R	80A
Gross Beta	Beta	9.4	1.5	2	4		80B
Uranium 233/234		0.46	0.17	0.1	0.2		U
Uranium 235	15117-96-1	0.028	0.028	0.1	0.2	U	U
Uranium 238	7440-61-1	0.47	0.15	0.09	0.2		U
Plutonium 238	13981-16-3	0	0.015	0.04	0.05	U	PU
Plutonium 239/240		0.019	0.023	0.03	0.05	U	PU
Americium 241	14596-10-2	0.005	0.015	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.34	1.5	0.8	2	U	Y
Technetium 99	14133-76-7	14	1.1	1	5		TC
Tritium	10028-17-8	13000	480	200	400		H
Carbon 14	14762-75-5	86	25	40	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59	14596-12-4	U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

TMRC, 5/24/93

RB 5/26/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

6/25/93

9713514.2800

N301066-02

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZH2

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-02
Dept sample id 7147-002
Received 01/19/93

Client sample id B07ZH2
Matrix WATER
Collected 01/15/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	0.79	2.1	2	3	~~J~~R	80A
Gross Beta	Beta	140	4.7	2	4	J	80B
Uranium 233/234		0.73	0.21	0.1	0.2	~~J~~	U
Uranium 235	15117-96-1	0.030	0.060	0.1	0.2	U ~~J~~	U
Uranium 238	7440-61-1	0.83	0.22	0.1	0.2	~~J~~	U
Plutonium 238	13981-16-3	0.005	0.011	0.02	0.05	U ~~J~~	PU
Plutonium 239/240		0.008	0.011	0.02	0.05	U ~~J~~	PU
Americium 241	14596-10-2	0.019	0.024	0.04	0.05	U ~~J~~	AM
Strontium 90	10098-97-2	44	1.6	0.9	2	~~J~~	Y
Technetium 99	14133-76-7	95	5.4	4	5	~~J~~	TC
Tritium	10028-17-8	3800	280	200	400		H
Carbon 14	14762-75-5	-5.1	23	40	50	U J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		70		U	GAM
Iron 59	14596-12-4	U		20	30	U	GAM
Chromium 51	14392-02-0	U		100		U	GAM
Cobalt 60	10198-40-0	U		7	30	U	GAM
Zinc 65	13982-39-3	U		10		U	GAM
Ruthenium 106	13967-48-1	U		60		U	GAM
Cesium 134	13967-70-9	U		7		U	GAM
Cesium 137	10045-97-3	U		6	20	U	GAM
Europium 152	14683-23-9	U		10	40	U	GAM
Europium 154	15585-10-1	U		8	40	U	GAM
Radium 226	13982-63-3	U		10		U	GAM
Thorium 228	14274-82-9	U		10		U	GAM
Thorium 232	7440-29-1	U		30		U	GAM

MRC, 5/24/93

RB 5/26/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

PBJ 6/25/93

9713514.2801

N301066-11

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZH7

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-11
Dept sample id 7147-011
Received 01/25/93

Client sample id B07ZH7
Matrix WATER
Collected 01/21/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	-3.6	1.8	2	3	~~U~~ R	80A
Gross Beta	Beta	290	6.5	2	4		80B
Uranium 233/234		0.50	0.17	0.1	0.2		U
Uranium 235	15117-96-1	0.016	0.032	0.1	0.2	U	U
Uranium 238	7440-61-1	0.59	0.19	0.1	0.2		U
Plutonium 238	13981-16-3	0.033	0.025	0.04	0.05	U	PU
Plutonium 239/240		0.004	0.017	0.03	0.05	U	PU
Americium 241	14596-10-2	-0.011	0.015	0.05	0.05	U	AM
Strontium 90	10098-97-2	120	5.0	3	2		Y
Technetium 99	14133-76-7	130	8.3	4	5		TC
Tritium	10028-17-8	4600	300	200	400		H
Carbon 14	14762-75-5	-19	24	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59	14596-12-4	U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB
5/26/93

MRL,
5/24/95

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

BJ
6/25/93

9713514.2802

N301066-09

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZJ2

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-09
Dept sample id 7147-009
Received 01/22/93

Client sample id B07ZJ2
Matrix WATER
Collected 01/19/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	3.0	2.0	2	3		80A
Gross Beta	Beta	74	3.5	2	4		80B
Uranium 233/234		1.1	0.28	0.1	0.2		U
Uranium 235	15117-96-1	0.050	0.067	0.1	0.2	U	U
Uranium 238	7440-61-1	0.94	0.25	0.1	0.2		U
Plutonium 238	13981-16-3	-0.009	0.028	0.06	0.05	U	PU
Plutonium 239/240		0.005	0.019	0.04	0.05	U	PU
Americium 241	14596-10-2	-0.003	0.017	0.04	0.05	U	AM
Strontium 90	10098-97-2	20	1.6	0.8	2		Y
Technetium 99	14133-76-7	74	2.0	1	5		TC
Tritium	10028-17-8	17000	540	200	400		H
Carbon 14	14762-75-5	-5.7	21	30	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59	14596-12-4	U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	13982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

MRC
5/24/93

RB
5/26/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

6/25/93

9713514.2803

N301066-12

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZJ7

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-12
Dept sample id 7147-012
Received 01/25/93

Client sample id B07ZJ7
Matrix WATER
Collected 01/21/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	2.0	2.2	2	3	BR	80A
Gross Beta	Beta	72	3.4	2	4	S	80B
Uranium 233/234		0.72	0.22	0.2	0.2		U
Uranium 235	15117-96-1	-0.015	0.031	0.1	0.2	U	U
Uranium 238	7440-61-1	0.52	0.16	0.1	0.2		U
Plutonium 238	13981-16-3	-0.006	0.019	0.04	0.05	U	PU
Plutonium 239/240		0.006	0.006	0.02	0.05	U	PU
Americium 241	14596-10-2	0.006	0.012	0.02	0.05	U	AM
Strontium 90	10098-97-2	23	1.2	1	2		Y
Technetium 99	14133-76-7	70	4.1	4	5		TC
Tritium	10028-17-8	3100	260	200	400		H
Carbon 14	14762-75-5	-11	28	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59	14596-12-4	U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 5/26/93

MRC, 5/24/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

RB 6/25/93

9713514.2804

N301066-15

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZK2

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-15
Dept sample id 7147-015
Received 01/26/93

Client sample id B07ZK2
Matrix WATER
Collected 01/24/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	1.3	2.1	2	3	~~U~~ R	80A
Gross Beta	Beta	87	3.7	2	4	J	80B
Uranium 233/234		0.59	0.20	0.2	0.2		U
Uranium 235	15117-96-1	0.032	0.065	0.1	0.2	U	U
Uranium 238	7440-61-1	0.40	0.17	0.1	0.2		U
Plutonium 238	13981-16-3	-0.004	0.029	0.06	0.05	U	PU
Plutonium 239/240		0.004	0.007	0.03	0.05	U	PU
Americium 241	14596-10-2	0.010	0.029	0.05	0.05	U	AM
Strontium 90	10098-97-2	33	1.3	0.8	2		Y
Technetium 99	14133-76-7	70	3.7	3	5		TC
Tritium	10028-17-8	2800	250	200	400		H
Carbon 14	14762-75-5	-14	23	40	50	U J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59	14596-12-4	U		30	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-63-3	U		40		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

MRC, 5/24/93

LB 5/26/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

PBD 6/25/93

9713514.2805

N301066-04

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZL7

SDG 7147
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-04
Dept sample id 7147-004
Received 01/20/93
Client sample id B07ZL7
Matrix WATER
Collected 01/17/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	0.18	1.3	2	3	UR	80A
Gross Beta	Beta	46	2.8	2	4	U	80B
Uranium 233/234		0.39	0.23	0.2	0.2		U
Uranium 235	15117-96-1	0.034	0.068	0.3	0.2	U	U
Uranium 238	7440-61-1	0.51	0.24	0.2	0.2		U
Plutonium 238	13981-16-3	0.016	0.032	0.06	0.05	U	PU
Plutonium 239/240		-0.009	0.013	0.03	0.05	U	PU
Americium 241	14596-10-2	0.006	0.022	0.04	0.05	U	AM
Strontium 90	10098-97-2	1.2	0.52	0.9	2	J	Y
Technetium 99	14133-76-7	87	4.2	3	5		TC
Tritium	10028-17-8	3600	270	200	400		H
Carbon 14	14762-75-5	-12	30	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59	14596-12-4	U		50	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

AB 5/26/93

MRC, 5/24/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

PDJ 5/25/93

9713514.2806

N301066-16

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZM2

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-16
Dept sample id 7147-016
Received 01/26/93

Client sample id B07ZM2
Matrix WATER
Collected 01/24/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	0.90	1.6	2	3	~~J~~R	80A
Gross Beta	Beta	83	3.6	2	4	J	80B
Uranium 233/234		0.59	0.17	0.09	0.2	J	U
Uranium 235	15117-96-1	0.028	0.056	0.1	0.2	U J	U
Uranium 238	7440-61-1	0.36	0.14	0.09	0.2	J	U
Plutonium 238	13981-16-3	0.005	0.018	0.03	0.05	U J	PU
Plutonium 239/240		0	0.007	0.02	0.05	U J	PU
Americium 241	14596-10-2	-0.002	0.014	0.02	0.05	U J	AM
Strontium 90	10098-97-2	29	1.4	1	2	J	Y
Technetium 99	14133-76-7	73	4.0	3	5	J	TC
Tritium	10028-17-8	2900	260	200	400		H
Carbon 14	14762-75-5	2.0	28	50	50	U J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59	14596-12-4	U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

MRC 5/24/93

RB 5/26/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

PBD 6/25/93

9713514.2807

N301066-03

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZM7

SDG	7147	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N301066-03	Client sample id	B07ZM7
Dept sample id	7147-003	Matrix	WATER
Received	01/19/93	Collected	01/15/93
		Chain of custody id	EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	1.1	1.7	2	3	~~J~~ R	80A
Gross Beta	Beta	37	2.5	2	4		80B
Uranium 233/234		0.60	0.21	0.2	0.2		U
Uranium 235	15117-96-1	0	0.040	0.2	0.2	U	U
Uranium 238	7440-61-1	0.56	0.21	0.1	0.2		U
Plutonium 238	13981-16-3	0.005	0.009	0.02	0.05	U	PU
Plutonium 239/240		0.002	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.006	0.024	0.05	0.05	U	AM
Strontium 90	10098-97-2	0.78	0.68	0.8	2	U	Y
Technetium 99	14133-76-7	67	3.8	3	5		TC
Tritium	10028-17-8	2600	250	200	400		H
Carbon 14	14762-75-5	-10	26	40	50	U J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59	14596-12-4	U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	13982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		9	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

KB 5/26/93

MRC, 5/24/93

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SUMMARY DATA SECTION
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RBJ 6/25/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.23
Report date	04/09/93

9713514.2808

N301066-17

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZN2

SDG	7147	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N301066-17	Client sample id	B07ZN2
Dept sample id	7147-017	Matrix	WATER
Received	01/26/93	Collected	01/23/93
		Chain of custody id	EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	-0.75	1.5	2	3	UR	80A
Gross Beta	Beta	64	3.3	2	4	J	80B
Uranium 233/234		0.49	0.19	0.1	0.2		U
Uranium 235	15117-96-1	0	0.036	0.1	0.2	U	U
Uranium 238	7440-61-1	0.55	0.19	0.1	0.2		U
Plutonium 238	13981-16-3	0	0.018	0.04	0.05	U	PU
Plutonium 239/240		0	0.006	0.02	0.05	U	PU
Americium 241	14596-10-2	0.010	0.015	0.02	0.05	U	AM
Strontium 90	10098-97-2	16	1.4	0.8	2		Y
Technetium 99	14133-76-7	80	4.6	4	5		TC
Tritium	10028-17-8	3600	280	200	400		H
Carbon 14	14762-75-5	-9.2	20	30	50	U J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59	14596-12-4	U		30	30	U	GAM
Chromium 51	14392-02-0	U		100		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		80		U	GAM
Cesium 134	13967-70-9	U		8		U	GAM
Cesium 137	10045-97-3	U		8	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		10		U	GAM
Thorium 232	7440-29-1	U		30		U	GAM

RB 5/24/93

MRC, 5/24/93

PBJ 6/25/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.23
Report date	04/09/93

9713514.2809

N301066-19

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZP2

SDG	7147	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N301066-19	Client sample id	B07ZP2
Dept sample id	7147-019	Matrix	WATER
Received	01/26/93	Collected	01/22/93
		Chain of custody id	EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	0.78	1.5	2	3	U R	80A
Gross Beta	Beta	26	2.2	2	4		80B
Uranium 233/234		0.38	0.17	0.1	0.2		U
Uranium 235	15117-96-1	0.016	0.033	0.1	0.2	U	U
Uranium 238	7440-61-1	0.50	0.17	0.1	0.2		U
Plutonium 238	13981-16-3	0.003	0.020	0.04	0.05	U	PU
Plutonium 239/240		0.007	0.014	0.03	0.05	U	PU
Americium 241	14596-10-2	-0.008	0.009	0.02	0.05	U	AM
Strontium 90	10098-97-2	1.2	0.56	0.9	2	J	Y
Technetium 99	14133-76-7	47	3.2	4	5		TC
Tritium	10028-17-8	2000	230	200	400		H
Carbon 14	14762-75-5	-13	24	40	50	U J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59	14596-12-4	U		30	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		90		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

RB 5/26/93

MRC, 5/24/93

6/25/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.23
Report date	04/09/93

9713514.2810

N301066-20

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZP7

SDG 7147
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-20
Dept sample id 7147-020
Received 01/26/93
Client sample id B07ZP7
Matrix WATER
Collected 01/23/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	0.57	1.5	2	3	UR	80A
Gross Beta	Beta	30	2.4	2	4		80B
Uranium 233/234		0.60	0.20	0.1	0.2		U
Uranium 235	15117-96-1	0	0.032	0.1	0.2	U	U
Uranium 238	7440-61-1	0.57	0.20	0.1	0.2		U
Plutonium 238	13981-16-3	0.019	0.025	0.04	0.05	U	PU
Plutonium 239/240		0.006	0.012	0.02	0.05	U	PU
Americium 241	14596-10-2	0.003	0.012	0.02	0.05	U	AM
Strontium 90	10098-97-2	0.32	0.26	0.8	2	U	Y
Technetium 99	14133-76-7	53	3.2	3	5		TC
Tritium	10028-17-8	2300	240	200	400		H
Carbon 14	14762-75-5	-15	25	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	110	100				GAM
Iron 59	14596-12-4	U		30	30	U	GAM
Chromium 51	14392-02-0	U		100		U	GAM
Cobalt 60	10198-40-0	U		8	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		70		U	GAM
Cesium 134	13967-70-9	U		8		U	GAM
Cesium 137	10045-97-3	U		8	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		10		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

AB 5/26/93

MRC, 5/24/93

PBS 6/25/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

9713514.2811

N301066-05

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZQ7

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-05
Dept sample id 7147-005
Received 01/20/93

Client sample id B07ZQ7
Matrix WATER
Collected 01/16/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	-0.21	1.1	2	3	~~J~~R	80A
Gross Beta	Beta	3.8	1.4	2	4	J	80B
Uranium 233/234		0.99	0.24	0.1	0.2	~~J~~	U
Uranium 235	15117-96-1	0.080	0.054	0.1	0.2	U ~~J~~	U
Uranium 238	7440-61-1	0.32	0.14	0.08	0.2	~~J~~	U
Plutonium 238	13981-16-3	0.010	0.020	0.04	0.05	U ~~J~~	PU
Plutonium 239/240		0.020	0.020	0.03	0.05	U ~~J~~	PU
Americium 241	14596-10-2	0.008	0.022	0.04	0.05	U ~~J~~	AM
Strontium 90	10098-97-2	0.066	0.23	0.9	2	U ~~J~~	Y
Technetium 99	14133-76-7	0.93	0.59	1	5	U ~~J~~	TC
Tritium	10028-17-8	120	150	200	400	U	H
Carbon 14	14762-75-5	-16	22	40	50	U ~~J~~	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59	14596-12-4	U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

RB 5/26/93

MRC, 5/24/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

RBJ 6/25/93

9713514.2812

N301066-01

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZR2

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-01
Dept sample id 7147-001
Received 01/18/93

Client sample id B07ZR2
Matrix WATER
Collected 01/14/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.50	1.7	2	3	~~U~~R	80A
Gross Beta	Beta	18	1.9	2	4	J	80B
Uranium 233/234		1.2	0.32	0.2	0.2	~~U~~	U
Uranium 235	15117-96-1	0.039	0.039	0.1	0.2	U ~~U~~	U
Uranium 238	7440-61-1	0.98	0.28	0.1	0.2	~~U~~	U
Plutonium 238	13981-16-3	-0.020	0.016	0.05	0.05	U ~~U~~	PU
Plutonium 239/240		-0.004	0.008	0.03	0.05	U ~~U~~	PU
Americium 241	14596-10-2	0.006	0.024	0.05	0.05	U ~~U~~	AM
Strontium 90	10098-97-2	0.10	0.19	0.8	2	U ~~U~~	Y
Technetium 99	14133-76-7	29	2.5	3	5	~~U~~	TC
Tritium	10028-17-8	27000	670	200	400		H
Carbon 14	14762-75-5	-13	25	40	50	U J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59	14596-12-4	U		20	30	U	GAM
Chromium 51	14392-02-0	U		100		U	GAM
Cobalt 60	10198-40-0	U		8	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		70		U	GAM
Cesium 134	13967-70-9	U		8		U	GAM
Cesium 137	10045-97-3	U		7	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		10		U	GAM
Thorium 228	14274-82-9	U		10		U	GAM
Thorium 232	7440-29-1	U		30		U	GAM

RB 5/26/93

MRC, 5/24/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

BDJ 6/25/93

9713514.2813

N301066-13

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZS2

SDG 7147
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-13
Dept sample id 7147-013
Received 01/25/93
Client sample id B07ZS2
Matrix WATER
Collected 01/21/93
Chain of custody id EFL-1037

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	2.5	2.3	2	3	~~J~~R	80A
Gross Beta	Beta	110	4.1	2	4	J	80B
Uranium 233/234		0.77	0.21	0.1	0.2	~~J~~	U
Uranium 235	15117-96-1	0.12	0.091	0.1	0.2	J	U
Uranium 238	7440-61-1	0.63	0.19	0.09	0.2	~~J~~	U
Plutonium 238	13981-16-3	-0.016	0.027	0.06	0.05	U ~~J~~	PU
Plutonium 239/240		-0.007	0.013	0.03	0.05	U ~~J~~	PU
Americium 241	14596-10-2	0.015	0.015	0.02	0.05	U ~~J~~	AM
Strontium 90	10098-97-2	0.14	0.22	0.8	2	U ~~J~~	Y
Technetium 99	14133-76-7	230	8.0	4	5	~~J~~	TC
Tritium	10028-17-8	6300	350	200	400		H
Carbon 14	14762-75-5	240	30	40	50	J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59	14596-12-4	U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		50	40	U	GAM
Europium 154	15585-10-1	U		30	40	U	GAM
Radium 226	13982-63-3	U		30		U	GAM
Thorium 228	14274-82-9	U		40		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 5/26/93

MRC, 5/24/93

PBJ 6/25/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

9713514.2814

N301066-06

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZS7

SDG 7147
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-06
Dept sample id 7147-006
Received 01/20/93
Client sample id B07ZS7
Matrix WATER
Collected 01/18/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	1.4	1.9	2	3	~~UR~~	80A
Gross Beta	Beta	38	2.6	2	4	J	80B
Uranium 233/234		1.0	0.26	0.1	0.2	Z	U
Uranium 235	15117-96-1	0.048	0.064	0.1	0.2	U Z	U
Uranium 238	7440-61-1	0.58	0.19	0.1	0.2	Z	U
Plutonium 238	13981-16-3	-0.012	0.012	0.04	0.05	U Z	PU
Plutonium 239/240		-0.003	0.006	0.02	0.05	U Z	PU
Americium 241	14596-10-2	0.003	0.027	0.06	0.05	U Z	AM
Strontium 90	10098-97-2	0.27	0.32	1	2	U Z	Y
Technetium 99	14133-76-7	76	4.1	3	5	Z	TC
Tritium	10028-17-8	2700	250	200	400		H
Carbon 14	14762-75-5	-4.0	24	40	50	U J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59	14596-12-4	U		30	30	U	GAM
Chromium 51	14392-02-0	U		100		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		80		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		9	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		10		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

RB 5/26/93

MRC, 5/24/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

BJ 6/25/93

9713514.2815

N301066-07

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZV2

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-07
Dept sample id 7147-007
Received 01/20/93

Client sample id B07ZV2
Matrix WATER
Collected 01/18/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.99	1.8	2	3	UR	80A
Gross Beta	Beta	43	2.7	2	4	J	80B
Uranium 233/234		0.56	0.19	0.1	0.2		U
Uranium 235	15117-96-1	0.018	0.036	0.1	0.2	U	U
Uranium 238	7440-61-1	0.40	0.15	0.1	0.2		U
Plutonium 238	13981-16-3	-0.003	0.027	0.05	0.05	U	PU
Plutonium 239/240		-0.003	0.011	0.03	0.05	U	PU
Americium 241	14596-10-2	0	0.019	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.66	0.46	0.8	2	U	Y
Technetium 99	14133-76-7	85	8.1	3	5		TC
Tritium	10028-17-8	3500	280	200	400		H
Carbon 14	14762-75-5	-18	19	30	50	U J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59	14596-12-4	U		30	30	U	GAM
Chromium 51	14392-02-0	U		100		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		70		U	GAM
Cesium 134	13967-70-9	U		8		U	GAM
Cesium 137	10045-97-3	U		8	20	U	GAM
Europium 152	14683-23-9	U		10	40	U	GAM
Europium 154	15585-10-1	U		9	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		30		U	GAM

RB 5/26/93

MRC, 5/24/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
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PJ 6/25/93

9713514.2816

N301066-10

TMA NORCAL
REPORTING GROUP 7147

DATA SHEET

B07ZY4

SDG 7147
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N301066-10
Dept sample id 7147-010
Received 01/22/93

Client sample id B07ZY4
Matrix WATER
Collected 01/19/93
Chain of custody id EFL-1036

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	0.57	1.6	2	3	~~U~~ R	80A
Gross Beta	Beta	6.3	1.4	2	4	J	80B
Uranium 233/234		0.49	0.16	0.1	0.2	U	U
Uranium 235	15117-96-1	0.046	0.061	0.1	0.2	U	U
Uranium 238	7440-61-1	0.35	0.13	0.1	0.2	U	U
Plutonium 238	13981-16-3	-0.008	0.045	0.09	0.05	~~U~~ R	PU
Plutonium 239/240		-0.015	0.015	0.07	0.05	~~U~~ R	PU
Americium 241	14596-10-2	-0.006	0.013	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.008	0.36	0.8	2	U	Y
Technetium 99	14133-76-7	1.7	0.63	1	5	J	TC
Tritium	10028-17-8	710	180	200	400		H
Carbon 14	14762-75-5	5.1	23	40	50	U J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59	14596-12-4	U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	13982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-63-3	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

MRC, 5/24/93

RB 5/26/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 04/09/93

BJ 6/25/93