DATA REVIEW

GREER TOYOTA SITE

INITIAL BORINGS

Sampled April 1998

SEMIVOLATILE ORGANICS
VOLATILE ORGANICS
INORGANICS
TOC

Prepared for:

THE CHAZEN COMPANIES
229B Page Park, Manchester Road
P.O. Box 3479
Poughkeepsie, New York 12603

Prepared by:

DATAVAL, Inc.
840 Hooper Rd., Suite 283
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COLUMBIA ANALYTICAL SERVICES

Reported: 05/08/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-3 8-10'

Date Sampled : 04/01/98
Date Received: 04/03/98
Order #: 203793
Submission #:9804000115
Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
SUB CONTRACTED ANALYSIS					
TOC *	1.00	1510	MG/KG	04/20/98	1.0

RAW DATA NOT AVAILABLE FOR REVIEW

155

* Subcontracted To:H2M Labs, Inc.

DATA REVIEW

for

CHAZEN ENVIRONMENTAL SERVICES, INC.

PAGE PARK, MANCHESTER ROAD

P.O. BOX 3479

POUGHKEEPSIE, NEW YORK 12603

GREER TOYOTA
Sampled 4/1/98

SAMPLE DELIVERY GROUP 9804000115

SOIL AND AQUEOUS SAMPLES for SEMIVOLATILE ORGANICS

B-3 8-10'	(203790)	B-2 8-10'	(203791)
B-1 6-8'	(203792)	B-2 water	(204298)

DATA ASSESSMENT

A semivolatile organics data package containing analytical results for 3 soils and an aqueous sample was received from Chazen Environmental Services on 980513. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Greer Toyota site, were identified by Chain of Custody documents and trackable through the work of Columbia Analytical Services, the laboratory contracted for analysis. Analyses were performed by EPA Method 8270A and addressed Target Compound List analytes. Laboratory data was evaluated according to the requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP) and the cited method. Where the required protocol was not followed, the current Region II Functional Guidelines (SOW HW-6,Rev 8, CLP Organics Data Review and Preliminary Review, Jan. 1992) was used as a technical reference.

The handling of sample B-2-Water requires that results from this sample be qualified. The sample was subjected to elevated temperatures while delayed in shipment, and stored beyond it's holding time limit prior to extraction. Negative results from this sample have been rejected. Positive results have been qualified as estimations.

Acenaphthalene and 4-chlorophenylphenylether results have been qualified as estimations due to poor calibration performance.

Because phthalates frequently represent laboratory artifacts, the bis(2-ethylhexyl)phthalate concentration reported from B-1 6-8' has been qualified as an estimation.

The chromatography of B-2 8-10' and B-2-Water contained fingerprint patterns indicative of the presence of petroleum.

CORRECTNESS AND USABILITY

The identification of 2-methylnaphthalene in B-2-Water could not be verified from the reference mass spectra included in the raw data. 2-Methylnaphthalene should be considered undetected in this sample.

The results reported for this group of samples should be considered correct and completely usable in there present form. Data felt to represent a usable estimation of the conditions being measured has been flagged "J" or "UJ". Data felt to be unreliable has been identified with single red line and flagged "R". Rejected data should not be included in data tables. Estimated data should be used with caution.

Two facts should be considered by all data users. No compound

concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 6/1/98

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Sample holding times are calculated from the time of receipt, by the laboratory. Samples must remain chilled to 4°C from the time of collection. Soil and groundwater samples must be extracted within 5 days of receipt and analyzed within 40 days of extraction. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This group of samples, was collected from the Greer Toyota site on 980401. Three soil samples were shipped via Airborne Express on 980402 and received by the laboratory the following morning. A cooler temperature of 5°C was recorded by the laboratory at the time of receipt.

A single aqueous sample, B-2-Water, was collected on 980401 and held in the field until 980403 prior to shipment via Airborne Express. The sample cooler was delivered to the laboratory the following Monday (980406). At the time of receipt, a cooler temperature of 15°C was recorded. Due to the extended time in transit and the exposure to elevated temperatures, the possibility of volatile losses from this sample cannot be ignored. Analyte concentrations reported from this sample should be assumed to represent the lowest levels likely to be present. The possibility of a significant negative bias should not be ignored.

Soil samples were extracted for semivolatile organics on 980410, the aqueous sample on 970413. Sample analyses were performed between 980414 and 980423. Although not consistent with ASP protocol, the SW-846 holding time requirements for soil samples were satisfied.

The extraction of the aqueous sample was performed 12 days after collection and 7 days after receipt, violating ASP and SW-846 holding time limitations. When the previous concerns related to the handling of this sample are also considered, results from this sample must be considered unreliable. Negative results have been rejected. Positive results have been qualified as estimations.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank. Any sample concentration less than 5 times the level determined in a blank must be qualified.

Two method blanks were associated with this group of samples. Both were free of target analyte contamination.

Although not detected in blanks, bis-(2-ethylhexyl)phthalate was reported from B-1 6-8'. Because phthalates frequently represent laboratory or program artifacts, the result reported from B-1 6-8' has been qualified as an estimation.

MS TUNING

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of DFTPP was analyzed prior to each analytical sequence and during every 12 hour period of instrument operation. An Instrument Performance Check Form is present for each DFTPP evaluation. DFTPP tunes associated with this group of samples satisfied acceptance criteria.

CALIBRATION

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The required levels of initial calibration were performed on 980414 and 980423. Standards of 20, 50, 80, 120 and 160 ng were included.

The initial instrument calibration for most targeted analytes demonstrated an acceptable degree of linearity and the required level of response at each reported concentration. During both calibrations, 2,6-dinitrotoluene demonstrated poor linearity and a low response to 120 and 160 ng standards. 4-Chlorophenyl-phenylether demonstrated similar performance during the 980414 calibration. Based on this performance, associated 2,6-dinitrotoluene and 4-chlorophenylphenylether results have been qualified as estimations.

A single calibration verification conducted on 980415 demonstrated an acceptable level of instrument stability.

SURROGATES

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structure of surrogates is similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Surrogate Summary Sheets were not prepared. Surrogate recoveries were reported on Form 1. The recovery of surrogates added to each program sample satisfied ASP acceptance requirements.

INTERNAL STANDARDS

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the recovery of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

Internal standard recoveries were stable throughout this work. The laboratory correctly calculated control limits for internal standard areas and retention times. The response of each internal standard that was added to program samples was within the calculated limits of acceptance.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS

Matrix spiking refers to the addition of known analyte concentrations to a sample prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Sample B-3 8-10' was selected for matrix spiking. Spikes to two aliquots of this sample demonstrated acceptable levels of measurement accuracy and precision. Spikes to an aqueous matrix were not reported.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates were not included in this group of samples.

SAMPLE INFORMATION

Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument printouts. Sample chromatograms were properly attenuated, demonstrating stable baselines. The data package also included laboratory reference spectra which provided a conclusive identification of most reported analytes. Analyte concentrations are correct as reported.

The identification of 2-methylnaphthalene in B-2-Water could not be confirmed by the mass spectra provided by the laboratory. It was impossible to determine if the sample mass spectra represented the product of coelution or a compound of similar structure. 2-Methylnaphthalene should be considered undetected in this sample.

The chromatography of B-2 8-10' and B-2-Water contained fingerprint patterns that indicated the presence of petroleum.

QUALIFIED DATA

GREER TOYOTA SITE
CHAZEN ENVIRONMENTAL SERVICES

SAMPLED 4/1/98

SAMPLE GROUP 9804000115

		HANDLING	HANDLING	ACENAPHTHENE CALIBRATE	4-CHLOROPHENPHENETHER CALIBRATE
B-3 8-10'	(203790)			UJ	UJ
B-2 8-10'	(203791)			UJ	UJ
B-1 6-8'	(203792)			UJ	UJ
B-2 water	(204298)	POS. J	NEG. REJECT	UJ	

QUALIFIED DATA

GREER TOYOTA SITE
CHAZEN ENVIRONMENTAL SERVICES

SAMPLED 4/1/98

SAMPLE GROUP 9804000115

	2-METHYLNAPHTHALENE MASS SPECTRA	PETROLEUM	PHTHALATES
B-3 8-10' (203790)			
B-2 8-10' (203791)		PRESENT	
B-1 6-8' (203792)			170 J
B-2 water (204298)	12U	PRESENT	

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-3 8-10'

Date Sampled : 04/01/98 **Order #:** 203790 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:** 9804000115 **Percent Solid:** 84.4

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/10/98			
DATE ANALYZED : 04/14/98			
ANALYTICAL DILUTION: 1.0			Dry Weight
ACENAPHTHENE	330	390 U	UG/KG
ACENAPHTHYLENE	330	390 UJ	UG/KG
ANTHRACENE	330	390 U	UG/KG
BENZO(A)ANTHRACENE	330	390 U	UG/KG
BENZO(A)PYRENE	330	390 U	UG/KG
BENZO(B)FLUORANTHENE	330	390 U	UG/KG
BENZO(G,H,I)PERYLENE	330	390 U	UG/KG
BENZO(K)FLUORANTHENE	330	390 U	UG/KG
BENZYL ALCOHOL	330	390 U	UG/KG
BUTYL BENZYL PHTHALATE	330	390 U	UG/KG
DI-N-BUTYLPHTHALATE	330	390 U	UG/KG
ARBAZOLE	330	390 U	UG/KG
NDENO(1,2,3-CD)PYRENE	330	390 U	UG/KG
4-CHLOROANILINE	330	390 U	UG/KG
BIS(-2-CHLOROETHOXY)METHANE	330	390 U	UG/KG
BIS(2-CHLOROETHYL)ETHER	330	390 U	UG/KG
2-CHLORONAPHTHALENE	330	390 U	UG/KG
2-CHLOROPHENOL	670	790 U	UG/KG
2,2'-OXYBIS(1-CHLOROPROPANE)	330	390 U	UG/KG
CHRYSENE	330	390 U	UG/KG
DIBENZO(A,H)ANTHRACENE	330	390 U	UG/KG
DIBENZOFURAN	330	390 U	UG/KG
1,3-DICHLOROBENZENE	330	390 U	UG/KG
1,2-DICHLOROBENZENE	330	390 U	UG/KG
1,4-DICHLOROBENZENE	330	390 U	UG/KG
3,3'-DICHLOROBENZIDINE	330	390 U	UG/KG
2,4-DICHLOROPHENOL	670	790 U	UG/KG
DIETHYLPHTHALATE	330	390 U	UG/KG
DIMETHYL PHTHALATE	330	390 U	UG/KG
2,4-DIMETHYLPHENOL	670	790 U	UG/KG
2,4-DINITROPHENOL	1300	1500 U	UG/KG
2,4-DINITROTOLUENE	330	390 U	UG/KG
2,6-DINITROTOLUENE	330	390 U	UG/KG
BIS(2-ETHYLHEXYL)PHTHALATE	330	390 U	UG/KG
FLUORANTHENE	330	390 U	UG/KG
FLUORENE	330	390 U	UG/KG
EXACHLOROBENZENE	330	390 U	UG/KG
EXACHLOROBUTADIENE	330	390 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	390 U	UG/KG
HEXACHLOROETHANE	330	390 U	UG/KG
ISOPHORONE	330	390 U	UG/KG
2-METHYLNAPHTHALENE	670	790 U	UG/KG
4,6-DINITRO-2-METHYLPHENOL	1300	1500 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-3 8-10'

Date Sampled : 04/01/98 **Order #:** 203790 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:** 9804000115 **Percent Solid:** 84.4

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/10/98			
DATE ANALYZED : 04/14/98			
ANALYTICAL DILUTION: 1.0			Dry Weight
4-CHLORO-3-METHYLPHENOL	670	790 U	UG/KG
2-METHYLPHENOL	670	790 U	UG/KG
4-METHYLPHENOL	670	790 U	UG/KG
NAPHTHALENE	330	390 U	UG/KG
2-NITROANILINE	330	390 U	UG/KG
3-NITROANILINE	330	390 U	UG/KG
4-NITROANILINE	330	390 U	UG/KG
NITROBENZENE	330	390 U	UG/KG
2-NITROPHENOL	670	790 U	UG/KG
4-NITROPHENOL	1300	1500 U	UG/KG
N-NITROSODIMETHYLAMINE	330	390 U	UG/KG
-NITROSODIPHENYLAMINE	330	390 U	UG/KG
-N-OCTYL PHTHALATE	330	390 U	UG/KG
ENTACHLOROPHENOL	1300	1500 U	UG/KG
PHENANTHRENE	330	390 U	UG/KG
PHENOL	670	790 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	390 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	390 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	390 U	UG/KG
PYRENE	330	390 U	UG/KG
1,2,4-TRICHLOROBENZENE	330	390 U	UG/KG
2,4,6-TRICHLOROPHENOL	670	790 U	UG/KG
2,4,5-TRICHLOROPHENOL	670	790 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(18 - 137 %)	68	%
NITROBENZENE-d5	(23 - 120 %)	56	%
PHENOL-d6	(24 - 113 %)	62	%
2-FLUOROBIPHENYL	(30 - 115 %)	64	%
2-FLUOROPHENOL	(25 - 121 %)	54	%
2,4,6-TRIBROMOPHENOL	(19 - 122 %)	87	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-1 6-8'

Date Sampled : 04/01/98 **Order #:** 203792 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:** 9804000115 **Percent Solid:** 69.4

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/10/98			
DATE ANALYZED : 04/14/98			
ANALYTICAL DILUTION: 1.0			Dry Weight
ACENAPHTHENE	330	480 U	UG/KG
ACENAPHTHYLENE	330	480 U J	UG/KG
ANTHRACENE	330	480 U	UG/KG
BENZO(A)ANTHRACENE	330	480 U	UG/KG
BENZO(A)PYRENE	330	480 U	UG/KG
BENZO(B)FLUORANTHENE	330	480 U	UG/KG
BENZO(G,H,I)PERYLENE	330	480 U	UG/KG
BENZO(K)FLUORANTHENE	330	480 U	UG/KG
BENZYL ALCOHOL	330	480 U	UG/KG
BUTYL BENZYL PHTHALATE	330	480 U	UG/KG
DI-N-BUTYLPHTHALATE	330	480 U	UG/KG
CARBAZOLE	330	480 U	UG/KG
INDENO(1,2,3-CD)PYRENE	330	480 U	UG/KG
4-CHLOROANILINE	330	480 U	UG/KG
BIS(-2-CHLOROETHOXY)METHANE	330	480 U	UG/KG
BIS(2-CHLOROETHYL)ETHER	330	480 U	UG/KG
2-CHLORONAPHTHALENE	330	480 U	UG/KG
2-CHLOROPHENOL	670	970 U	UG/KG
2,2'-OXYBIS(1-CHLOROPROPANE)	330	480 U	UG/KG
CHRYSENE	330	480 U	UG/KG
DIBENZO(A,H)ANTHRACENE	330	480 U	UG/KG
DIBENZOFURAN	330	480 U	UG/KG
1,3-DICHLOROBENZENE	330	480 U	UG/KG
1,2-DICHLOROBENZENE	330	480 U	UG/KG
1,4-DICHLOROBENZENE	330	480 U	UG/KG
3,3'-DICHLOROBENZIDINE	330	480 U	UG/KG
2,4-DICHLOROPHENOL	670	970 U	UG/KG
DIETHYLPHTHALATE	330	480 U	UG/KG
DIMETHYL PHTHALATE	330	480 U	UG/KG
2,4-DIMETHYLPHENOL	670	970 U	UG/KG
2,4-DINITROPHENOL	1300	1900 U	UG/KG
2,4-DINITROTOLUENE	330	480 U	UG/KG
2,6-DINITROTOLUENE	330	480 U	UG/KG
BIS(2-ETHYLHEXYL)PHTHALATE	330	170 J	UG/KG
FLUORANTHENE	330	480 U	UG/KG
FLUORENE	330	480 U	UG/KG
HEXACHLOROBENZENE	330	480 U	UG/KG
HEXACHLOROBUTADIENE	330	480 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	480 U	UG/KG
HEXACHLOROETHANE	330	480 U	UG/KG
ISOPHORONE	330	480 U	UG/KG
2-METHYLNAPHTHALENE	670	970 U	UG/KG
4,6-DINITRO-2-METHYLPHENOL	1300	1900 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-1 6-8'

Date Sampled : 04/01/98 **Order #:** 203792 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:** 9804000115 **Percent Solid:** 69.4

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/10/98			
DATE ANALYZED : 04/14/98			
ANALYTICAL DILUTION: 1.0			Dry Weight
4-CHLORO-3-METHYLPHENOL	670	970 U	UG/KG
2-METHYLPHENOL	670	970 U	UG/KG
4-METHYLPHENOL	670	970 U	UG/KG
NAPHTHALENE	330	480 U	UG/KG
2-NITROANILINE	330	480 U	UG/KG
3-NITROANILINE	330	480 U	UG/KG
4-NITROANILINE	330	480 U	UG/KG
NITROBENZENE	330	480 U	UG/KG
2-NITROPHENOL	670	970 U	UG/KG
4-NITROPHENOL	1300	1900 U	UG/KG
N-NITROSODIMETHYLAMINE	330	480 U	UG/KG
N-NITROSODIPHENYLAMINE	330	480 U	UG/KG
DI-N-OCTYL PHTHALATE	330	480 U	UG/KG
PENTACHLOROPHENOL	1300	1900 U	UG/KG
PHENANTHRENE	330	480 U	UG/KG
PHENOL	670	970 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	480 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	480 ~~U~~ UJ	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	480 U	UG/KG
PYRENE	330	480 U	UG/KG
1,2,4-TRICHLOROBENZENE	330	480 U	UG/KG
2,4,6-TRICHLOROPHENOL	670	970 U	UG/KG
2,4,5-TRICHLOROPHENOL	670	970 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(18 - 137 %)	72 ✓	%
NITROBENZENE-d5	(23 - 120 %)	63	%
PHENOL-d6	(24 - 113 %)	73	%
2-FLUOROBIPHENYL	(30 - 115 %)	74	%
2-FLUOROPHENOL	(25 - 121 %)	61	%
2,4,6-TRIBROMOPHENOL	(19 - 122 %)	98	%

JJJ

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-2 8-10'

Date Sampled : 04/01/98 **Order #:** 203791 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:** 9804000115 **Percent Solid:** 83.8

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/10/98			
DATE ANALYZED : 04/15/98			
ANALYTICAL DILUTION: 10.0			Dry Weight
ACENAPHTHENE	330	3900 U	UG/KG
ACENAPHTHYLENE	330	3900 U	UG/KG
ANTHRACENE	330	3900 U	UG/KG
BENZO(A)ANTHRACENE	330	3900 U	UG/KG
BENZO(A) PYRENE	330	3900 U	UG/KG
BENZO(B) FLUORANTHENE	330	3900 U	UG/KG
BENZO(G,H,I) PERYLENE	330	3900 U	UG/KG
BENZO(K) FLUORANTHENE	330	3900 U	UG/KG
BENZYL ALCOHOL	330	3900 U	UG/KG
BUTYL BENZYL PHTHALATE	330	3900 U	UG/KG
DI-N-BUTYLPHTHALATE	330	3900 U	UG/KG
CARBAZOLE	330	3900 U	UG/KG
INDENO(1,2,3-CD) PYRENE	330	3900 U	UG/KG
4-CHLOROANILINE	330	3900 U	UG/KG
BIS(-2-CHLOROETHOXY) METHANE	330	3900 U	UG/KG
BIS(2-CHLOROETHYL) ETHER	330	3900 U	UG/KG
2-CHLORONAPHTHALENE	330	3900 U	UG/KG
2-CHLOROPHENOL	670	8000 U	UG/KG
2,2'-OXYBIS(1-CHLOROPROPANE)	330	3900 U	UG/KG
CHRYSENE	330	3900 U	UG/KG
DIBENZO(A,H)ANTHRACENE	330	3900 U	UG/KG
DIBENZOFURAN	330	3900 U	UG/KG
1,3-DICHLOROBENZENE	330	3900 U	UG/KG
1,2-DICHLOROBENZENE	330	3900 U	UG/KG
1,4-DICHLOROBENZENE	330	3900 U	UG/KG
3,3'-DICHLOROBENZIDINE	330	3900 U	UG/KG
2,4-DICHLOROPHENOL	670	8000 U	UG/KG
DIETHYLPHTHALATE	330	3900 U	UG/KG
DIMETHYL PHTHALATE	330	3900 U	UG/KG
2,4-DIMETHYLPHENOL	670	8000 U	UG/KG
2,4-DINITROPHENOL	1300	16000 U	UG/KG
2,4-DINITROTOLUENE	330	3900 U	UG/KG
2,6-DINITROTOLUENE	330	3900 U	UG/KG
BIS(2-ETHYLHEXYL) PHTHALATE	330	3900 U	UG/KG
FLUORANTHENE	330	3900 U	UG/KG
FLUORENE	330	3900 U	UG/KG
HEXACHLOROBENZENE	330	3900 U	UG/KG
HEXACHLOROBUTADIENE	330	3900 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	3900 U	UG/KG
HEXACHLOROETHANE	330	3900 U	UG/KG
ISOPHORONE	330	3900 U	UG/KG
2-METHYLNAPHTHALENE	670	1900 J	UG/KG
4,6-DINITRO-2-METHYLPHENOL	1300	16000 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-2 8-10'

Date Sampled : 04/01/98 **Order #:** 203791 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:** 9804000115 **Percent Solid:** 83.8

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/10/98			
DATE ANALYZED : 04/15/98			
ANALYTICAL DILUTION: 10.0			Dry Weight
4-CHLORO-3-METHYLPHENOL	670	8000 U	UG/KG
2-METHYLPHENOL	670	8000 U	UG/KG
4-METHYLPHENOL	670	8000 U	UG/KG
NAPHTHALENE	330	1200 J	UG/KG
2-NITROANILINE	330	3900 U	UG/KG
3-NITROANILINE	330	3900 U	UG/KG
4-NITROANILINE	330	3900 U	UG/KG
NITROBENZENE	330	3900 U	UG/KG
2-NITROPHENOL	670	8000 U	UG/KG
4-NITROPHENOL	1300	16000 U	UG/KG
N-NITROSODIMETHYLAMINE	330	3900 U	UG/KG
N-NITROSODIPHENYLAMINE	330	3900 U	UG/KG
DI-N-OCTYL PHTHALATE	330	3900 U	UG/KG
PENTACHLOROPHENOL	1300	16000 U	UG/KG
PHENANTHRENE	330	3900 U	UG/KG
PHENOL	670	8000 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	3900 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	3900 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	3900 U	UG/KG
PYRENE	330	3900 U	UG/KG
1,2,4-TRICHLOROBENZENE	330	3900 U	UG/KG
2,4,6-TRICHLOROPHENOL	670	8000 U	UG/KG
2,4,5-TRICHLOROPHENOL	670	8000 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(18 - 137 %)	116	%
NITROBENZENE-d5	(23 - 120 %)	61	%
PHENOL-d6	(24 - 113 %)	75	%
2-FLUOROBIPHENYL	(30 - 115 %)	107	%
2-FLUOROPHENOL	(25 - 121 %)	70	%
2,4,6-TRIBROMOPHENOL	(19 - 122 %)	96	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-2 WATER

Date Sampled : 04/01/98 **Order #:** 204298 **Sample Matrix:** WATER
Date Received: 04/06/98 **Submission #:** 9804000115 **Analytical Run** 25752

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/13/98			
DATE ANALYZED : 04/23/98			
ANALYTICAL DILUTION: 1.2			
ACENAPHTHENE	5.0	~~5.9 U~~	UG/L
ACENAPHTHYLENE	5.0	~~5.9 U~~ UJ	UG/L
ANTHRACENE	5.0	~~5.9 U~~	UG/L
BENZO(A)ANTHRACENE	5.0	~~5.9 U~~	UG/L
BENZO(A) PYRENE	5.0	~~5.9 U~~	UG/L
BENZO(B) FLUORANTHENE	5.0	~~5.9 U~~	UG/L
BENZO(G,H,I) PERYLENE	5.0	~~5.9 U~~	UG/L
BENZO(K) FLUORANTHENE	5.0	~~5.9 U~~	UG/L
BENZYL ALCOHOL	5.0	~~5.9 U~~	UG/L
BUTYL BENZYL PHTHALATE	5.0	~~5.9 U~~	UG/L
DI-N-BUTYLPHTHALATE	5.0	~~5.9 U~~	UG/L
CARBAZOLE	5.0	~~5.9 U~~	UG/L
INDENO(1,2,3-CD) PYRENE	5.0	~~5.9 U~~	UG/L
4-CHLOROANILINE	5.0	~~5.9 U~~	UG/L
BIS(-2-CHLOROETHOXY) METHANE	5.0	~~5.9 U~~	UG/L
BIS(2-CHLOROETHYL) ETHER	5.0	~~5.9 U~~	UG/L
2-CHLORONAPHTHALENE	5.0	~~5.9 U~~	UG/L
2-CHLOROPHENOL	10	~~12 U~~	UG/L
2,2'-OXYBIS(1-CHLOROPROPANE)	5.0	~~5.9 U~~ R	UG/L
CHRYSENE	5.0	~~5.9 U~~	UG/L
DIBENZO(A,H)ANTHRACENE	5.0	~~5.9 U~~	UG/L
DIBENZOFURAN	5.0	~~5.9 U~~	UG/L
1,3-DICHLOROBENZENE	5.0	~~5.9 U~~	UG/L
1,2-DICHLOROBENZENE	5.0	~~5.9 U~~	UG/L
1,4-DICHLOROBENZENE	5.0	~~5.9 U~~	UG/L
3,3'-DICHLOROBENZIDINE	5.0	~~5.9 U~~	UG/L
2,4-DICHLOROPHENOL	10	~~12 U~~	UG/L
DIETHYLPHTHALATE	5.0	~~5.9 U~~	UG/L
DIMETHYL PHTHALATE	5.0	~~5.9 U~~	UG/L
2,4-DIMETHYLPHENOL	10	~~12 U~~	UG/L
2,4-DINITROPHENOL	20	~~24 U~~	UG/L
2,4-DINITROTOLUENE	5.0	~~5.9 U~~	UG/L
2,6-DINITROTOLUENE	5.0	~~5.9 U~~	UG/L
BIS(2-ETHYLHEXYL) PHTHALATE	5.0	~~5.9 U~~	UG/L
FLUORANTHENE	5.0	~~5.9 U~~	UG/L
FLUORENE	5.0	~~5.9 U~~	UG/L
HEXACHLOROBENZENE	5.0	~~5.9 U~~	UG/L
HEXACHLOROBUTADIENE	5.0	~~5.9 U~~	UG/L
HEXACHLOROCYCLOPENTADIENE	5.0	~~5.9 U~~	UG/L
HEXACHLOROETHANE	5.0	~~5.9 U~~	UG/L
ISOPHORONE	5.0	~~5.9 U~~	UG/L
2-METHYLNAPHTHALENE	10	~~12~~ 32 U	UG/L
4,6-DINITRO-2-METHYLPHENOL	20	~~24 U~~	UG/L

00163

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-2 WATER

Date Sampled : 04/01/98 **Order #:** 204298 **Sample Matrix:** WATER
Date Received: 04/06/98 **Submission #:** 9804000115 **Analytical Run** 25752

ANALYTE	PQL	RESULT		UNITS
DATE EXTRACTED : 04/13/98				
DATE ANALYZED : 04/23/98				
ANALYTICAL DILUTION: 1.2				
4-CHLORO-3-METHYLPHENOL	10	~~12 U~~	R	UG/L
2-METHYLPHENOL	10	~~12 U~~	R	UG/L
4-METHYLPHENOL	10	190	J	UG/L
NAPHTHALENE	5.0	64	J	UG/L
2-NITROANILINE	5.0	~~5.9 U~~		UG/L
3-NITROANILINE	5.0	~~5.9 U~~		UG/L
4-NITROANILINE	5.0	~~5.9 U~~		UG/L
NITROBENZENE	5.0	~~5.9 U~~		UG/L
2-NITROPHENOL	10	~~12 U~~		UG/L
4-NITROPHENOL	20	~~24 U~~	R	UG/L
N-NITROSODIMETHYLAMINE	5.0	~~5.9 U~~		UG/L
N-NITROSODIPHENYLAMINE	5.0	~~5.9 U~~		UG/L
DI-N-OCTYL PHTHALATE	5.0	~~5.9 U~~		UG/L
PENTACHLOROPHENOL	20	~~24 U~~		UG/L
PHENANTHRENE	5.0	~~5.9 U~~		UG/L
PHENOL	10	55	J	UG/L
4-BROMOPHENYL-PHENYLETHER	5.0	~~5.9 U~~		UG/L
4-CHLOROPHENYL-PHENYLETHER	5.0	~~5.9 U~~		UG/L
N-NITROSO-DI-N-PROPYLAMINE	5.0	~~5.9 U~~		UG/L
PYRENE	5.0	~~5.9 U~~	R	UG/L
1,2,4-TRICHLOROBENZENE	5.0	~~5.9 U~~		UG/L
2,4,6-TRICHLOROPHENOL	10	~~12 U~~		UG/L
2,4,5-TRICHLOROPHENOL	10	~~12 U~~		UG/L

JBS

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(33 - 141 %)	98	%
NITROBENZENE-d5	(35 - 114 %)	70	%
PHENOL-d6	(10 - 94 %)	63	%
2-FLUOROBIPHENYL	(43 - 116 %)	69	%
2-FLUOROPHENOL	(21 - 110 %)	60	%
2,4,6-TRIBROMOPHENOL	(10 - 123 %)	106	%

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
SOIL/SEDIMENT

Spiked Order No. : 203790 The Chazen Companies

Client ID: B-3 8-10'

Test: 8270C SEMIVOLATILES

Analytical Units: UG/KG

Run Number : 25499

Percent Solid : 84.4

			MATRIX SPIKE		MATRIX SPIKE DUP.			QC LIMITS	
ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.
ACENAPHTHENE	7900	0	7460	94	7460	94	0	19	31 - 137
2-CHLOROPHENOL	15800	0	10100	64	10400	66	3	50	25 - 102
1,4-DICHLOROBENZENE	7900	0	4500	57	4150	53	8	27	28 - 104
2,4-DINITROTOLUENE	7900	0	5210	66	5210	66	0	38	28 - 89
4-CHLORO-3-METHYLPHENOL	15800	0	10200	65	10700	68	5	33	26 - 103
4-NITROPHENOL	15800	0	9360	59	9830	62	5	50	11 - 114
PENTACHLOROPHENOL	15800	0	11800	75	13000	82	10	47	17 - 109
PHENOL	15800	0	10200	65	10700	68	5	35	26 - 90
N-NITROSO-DI-N-PROPYLAMINE	7900	0	5920	75	6160	78	4	38	41 - 126
PYRENE	7900	0	5210	66	5570	71	7	36	35 - 142
1,2,4-TRICHLOROBENZENE	7900	0	5330	67	4980	63	7	33	38 - 107

00132

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY BLANK SPIKE RECOVERY

SOIL/SEDIMENT

Spiked Order No. : 203790 The Chazen Companies

Client ID: B-3 8-10'

Test: 8270C SEMIVOLATILES

Analytical Units: UG/KG

Run Number : 25499

ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	BLANK SPIKE FOUND	BLANK SPIKE % REC.	QC LIMITS REC.
ACENAPHTHENE	6670	0	4600	69	31 - 137
2-CHLOROPHENOL	13300	0	5300	40	25 - 102
1,4-DICHLOROBENZENE	6670	0	3200	48	28 - 104
2,4-DINITROTOLUENE	6670	0	3600	54	28 - 89
4-CHLORO-3-METHYLPHENO	13300	0	5700	43	26 - 103
4-NITROPHENOL	13300	0	5800	43	11 - 114
PENTACHLOROPHENOL	13300	0	8300	62	17 - 109
PHENOL	13300	0	3600	27	26 - 90
N-NITROSO-DI-N-PROPYLA	6670	0	3400	51	41 - 126
PYRENE	6670	0	3600	54	35 - 142
1,2,4-TRICHLOROBENZENE	6670	0	3600	54	38 - 107

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

SBLK1

Lab Name: Columbia Analytical Services Contract: CHAZEN

Lab Code: 10145 Case No.: 984-115 SAS No.: _____ SDG No.: B-38

Lab File ID: BO900.D Lab Sample ID: 205402 1.0

Instrument ID: MS #2 Date Extracted: 04/10/98

Matrix: (soil/water) ~~WATER~~ Soil Date Analyzed: 04/14/98

Level: (low/med) LOW mwp 5/4/98 Time Analyzed: 16:49

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK1MS	205403	BO901.D	04/14/98
02	B-38-10'	203790	BO902.D	04/14/98
03	B-38-10'MS	205406	BO903.D	04/14/98
04	B-38-10'MSD	205407	BO904.D	04/14/98
05	B-16-8'	203792	BO906.D	04/14/98
06	B-28-10'	203791 1/10	BO919.D	04/15/98

COMMENTS:

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

SBLK1

Lab Name: Columbia Analytical Services Contract: Chazen

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: B-38

Lab File ID: BP022.D Lab Sample ID: 207302

Instrument ID: MS #2 Date Extracted: 04/13/98

Matrix: (soil/water) WATER Date Analyzed: 04/23/98

Level: (low/med) LOW Time Analyzed: 19:35

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK1MS	207303	BP023.D	04/23/98
02	B-2 WATER	204298	BP029.D	04/23/98

COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Columbia Analytical Services Contract: CHAZEN

Lab Code: 10145 Case No.: 984-115 SAS No.: _____ SDG No.: B-38

Lab File ID: BO889.D DFTPP Injection Date: 04/14/98

Instrument ID: MS #2 DFTPP Injection Time: 10:59

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 -60.0% of mass 198	59.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	68.3
70	Less than 2.0% of mass 69	0.3 (0.4)1
127	40.0 - 60.0% of mass 198	49.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.9
275	10.0 - 30.0% of mass 198	17.6
365	Greater than 1.00% of mass 198	2.0
441	Present, but less than mass 443	7.7
442	40.0 - 100.0% of mass 198	46.3
443	17.0 - 23.0% of mass 442	8.9 (19.3)2

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

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

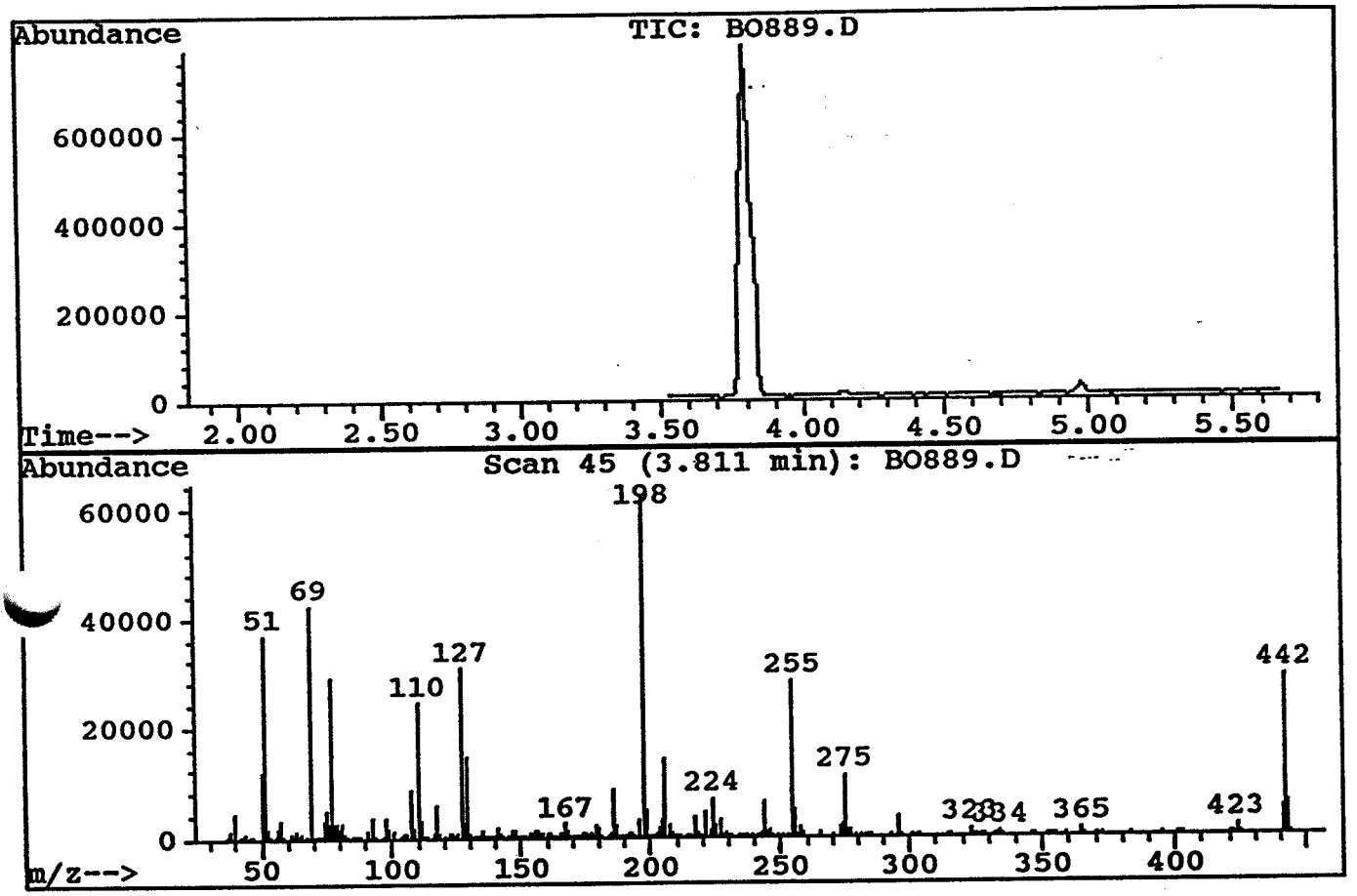
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020	20 PPM STD	BO890.D	04/14/98	11:13
02	SSTD050	50 PPM STD	BO891.D	04/14/98	11:47
03	SSTD080	80 PPM STD	BO892.D	04/14/98	12:21
04	SSTD120	120 PPM STD	BO893.D	04/14/98	12:54
05	SSTD160	160 PPM STD	BO894.D	04/14/98	13:28
06	SBLK1	205402	BO900.D	04/14/98	16:49
07	SBLK1MS	205403	BO901.D	04/14/98	17:23
08	B-38-10'	203790	BO902.D	04/14/98	17:58
09	B-38-10'MS	205406	BO903.D	04/14/98	18:31
10	B-38-10'MSD	205407	BO904.D	04/14/98	19:05
11	B-16-8'	203792	BO906.D	04/14/98	20:13

DFTPP

Data File : C:\HPCHEM\2\DATA\BO889.D
Acq On : 14 Apr 98 10:59 am
Sample : 50 ng DFTPP
Misc : TUNE CHECK

Vial: 1
Operator: Todd Brown
Inst : MS #2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\DFTPP.M
Title : DFTPP ANALYSIS



Peak Apex is scan: 45

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	59.5	36968	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	68.3	42448	PASS
70	69	0	2	0.4	180	PASS
127	198	40	60	49.7	30904	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	62144	PASS
199	198	5	9	7.9	4913	PASS
275	198	10	30	17.6	10945	PASS
365	198	1	100	2.0	1219	PASS
441	443	0	100	85.9	4762	PASS
442	198	40	100	46.3	28752	PASS
443	442	17	23	19.3	5542	PASS

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Columbia Analytical Services Contract: CHAZEN

Lab Code: 10145 Case No.: 984-115 SAS No.: _____ SDG No.: B-38

Lab File ID: BO915.D DFTPP Injection Date: 04/15/98

Instrument ID: MS #2 DFTPP Injection Time: 12:11

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 -60.0% of mass 198	46.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	48.1
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	43.9
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 30.0% of mass 198	20.1
365	Greater than 1.00% of mass 198	2.2
441	Present, but less than mass 443	7.7
442	40.0 - 100.0% of mass 198	50.2
443	17.0 - 23.0% of mass 442	9.3 (18.5)2

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

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

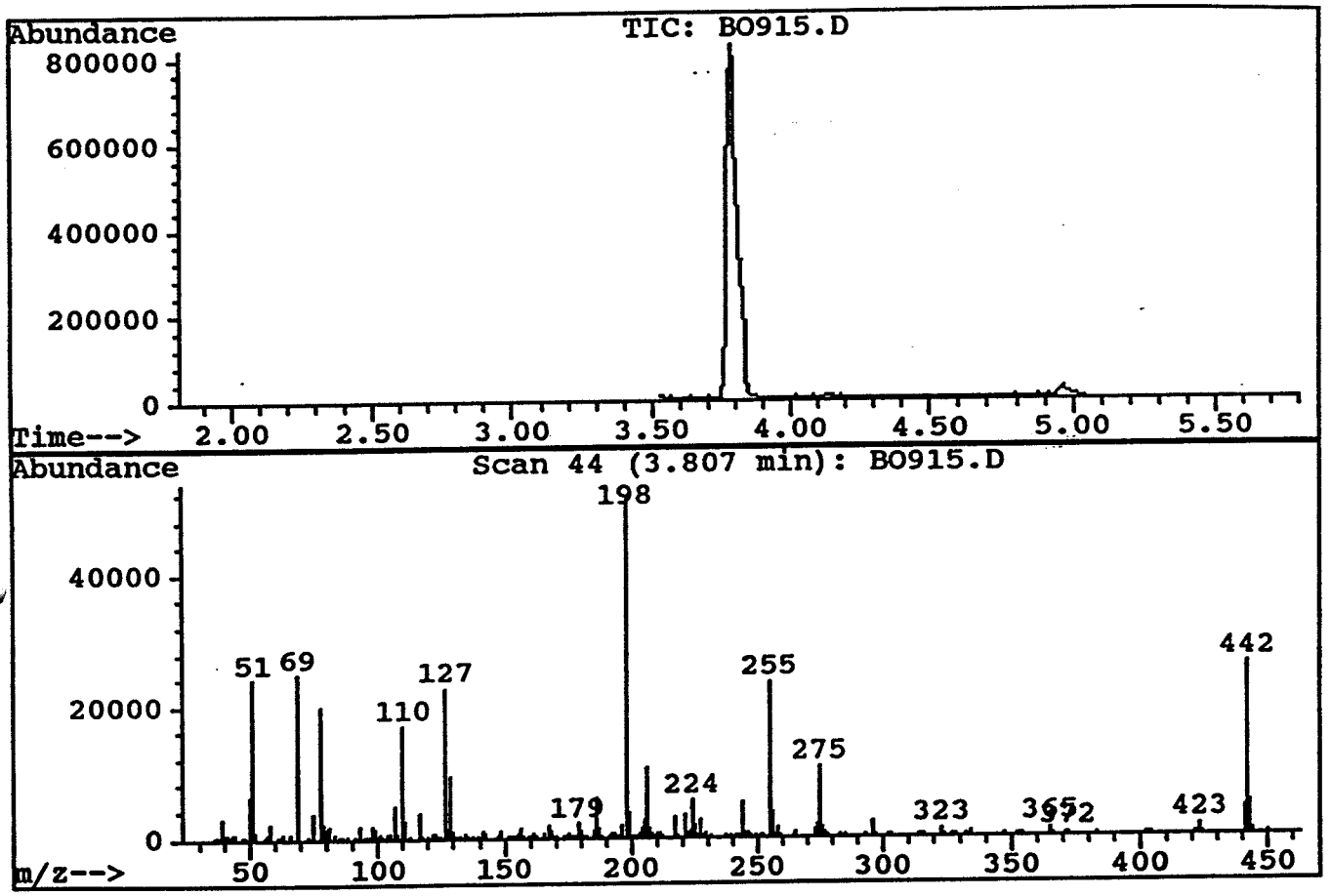
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD150	50 PPM STD	BO916.D	04/15/98	12:25
02	B-28-10'	203791 1/10	BO919.D	04/15/98	14:06

DFTPP

Data File : C:\HPCHEM\2\DATA\BO915.D
Acq On : 15 Apr 98 12:11 pm
Sample : 50 ng DFTPP
Misc : TUNE CHECK

Vial: 1
Operator: Todd Brown
Inst : MS #2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\DFTPP.M
Title : DFTPP ANALYSIS



Peak Apex is scan: 44

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	46.5	23928	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	48.1	24768	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	43.9	22616	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	51512	PASS
199	198	5	9	7.4	3798	PASS
275	198	10	30	20.1	10364	PASS
365	198	1	100	2.2	1128	PASS
441	443	0	100	83.1	3981	PASS
442	198	40	100	50.2	25880	PASS
443	442	17	23	18.5	4791	PASS

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Columbia Analytical Services Contract: Chazen

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: B-38

Lab File ID: BP011.D DFTPP Injection Date: 04/23/98

Instrument ID: MS #2 DFTPP Injection Time: 13:44

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 -60.0% of mass 198	50.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	57.2
70	Less than 2.0% of mass 69	0.5 (0.8)1
127	40.0 - 60.0% of mass 198	45.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.6
275	10.0 - 30.0% of mass 198	19.8
365	Greater than 1.00% of mass 198	2.2
441	Present, but less than mass 443	6.2
442	40.0 - 100.0% of mass 198	46.2
443	17.0 - 23.0% of mass 442	10.6 (22.9)2

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

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

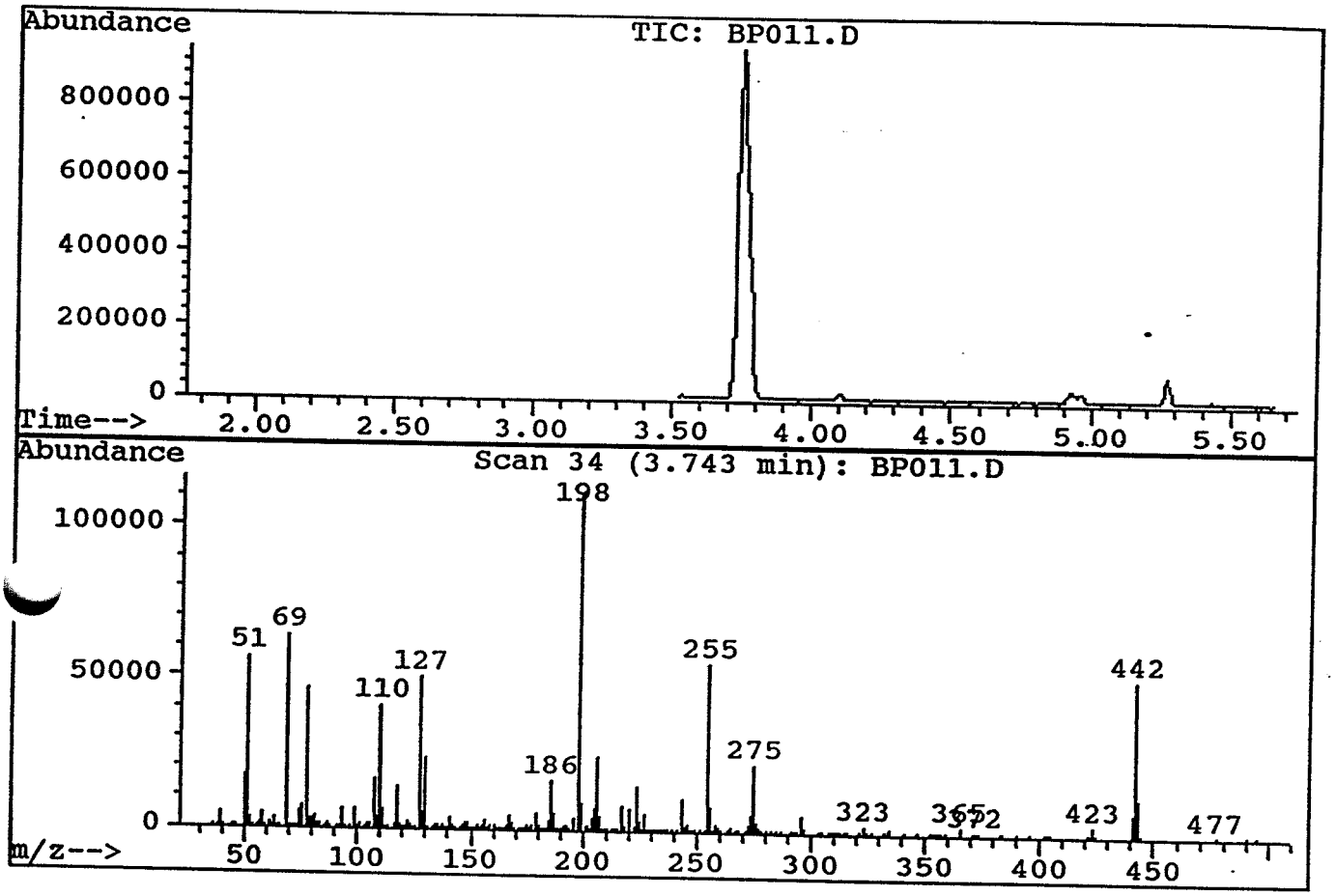
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020	20 PPM STD	BP012.D	04/23/98	13:57
02	SSTD050	50 PPM STD	BP013.D	04/23/98	14:31
03	SSTD080	80 PPM STD	BP014.D	04/23/98	15:05
04	SSTD120	120 PPM STD	BP015.D	04/23/98	15:39
05	SSTD160	160 PPM STD	BP016.D	04/23/98	16:12
06	SBLK1	207302	BP022.D	04/23/98	19:35
07	SBLK1MS	207303	BP023.D	04/23/98	20:09
08	B-2 WATER	204298	BP029.D	04/23/98	23:31

DFTPP

Data File : C:\HPCHEM\2\DATA\BP011.D
Acq On : 23 Apr 98 1:44 pm
Sample : 50 ng DFTPP
Misc : TUNE CHECK

Vial: 1
Operator: Todd Brown
Inst : MS #2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\DFTPP.M
Title : DFTPP ANALYSIS



Peak Apex is scan: 34

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	50.7	56448	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	57.2	63736	PASS
70	69	0	2	0.8	522	PASS
127	198	40	60	45.1	50272	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	111376	PASS
199	198	5	9	7.6	8410	PASS
275	198	10	30	19.8	22104	PASS
365	198	1	100	2.2	2450	PASS
441	443	0	100	59.1	6957	PASS
442	198	40	100	46.2	51480	PASS
443	442	17	23	22.9	11766	PASS

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: CHAZEN

Lab Code: 10145 Case No.: 984-115 SAS No.: _____ SDG No.: B-38

Lab File ID (Standard): BO891.D Date Analyzed: 04/14/98

Instrument ID: MS #2 Time Analyzed: 11:47

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	44121	6.36	165865	8.96	91928	12.37
	UPPER LIMIT	88242	6.86	331730	9.46	183856	12.87
	LOWER LIMIT	22061	5.86	82933	8.46	45964	11.87
	EPA SAMPLE NO.						
01	SBLK1	43314	6.34	143340	8.94	80065	12.36
02	SBLK1MS	46029	6.34	162606	8.95	89619	12.36
03	B-38-10'	45514	6.35	157929	8.95	85496	12.36
04	B-38-10'MS	42586	6.36	150561	8.96	85680	12.37
05	B-38-10'MSD	41050	6.36	149038	8.96	84103	12.37
06	B-16-8'	37658	6.35	133583	8.95	76025	12.36

IS1 (DCB) = d4-1,4-Dichlorobenzene
IS2 (NPT) = d8-Naphthalene
IS3 (ANT) = d10-Acenaphthene
IS4 (PHN) = d10-Phenanthrene
IS5 (CRY) = d12-Chrysene
IS6 (PRY) = d12-Perylene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: CHAZEN

Lab Code: 10145 Case No.: 984-115 SAS No.: _____ SDG No.: B-38

Lab File ID (Standard): BO891.D Date Analyzed: 04/14/98

Instrument ID: MS #2 Time Analyzed: 11:47

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	169901	14.80	125189	19.02	129726	21.11
	UPPER LIMIT	339802	15.30	250378	19.52	259452	21.61
	LOWER LIMIT	84951	14.30	62595	18.52	64863	20.61
	EPA SAMPLE NO.						
01	SBLK1	151215	14.78	140211	19.00	108846	21.09
02	SBLK1MS	168243	14.79	153760	19.00	117169	21.10
03	B-38-10'	169458	14.80	153580	19.00	120971	21.10
04	B-38-10'MS	164569	14.80	149164	19.00	138986	21.11
05	B-38-10'MSD	159716	14.80	142029	19.01	102267	21.10
06	B-16-8'	146830	14.79	133739	19.01	113009	21.10

IS1 (DCB) = d4-1,4-Dichlorobenzene
IS2 (NPT) = d8-Naphthalene
IS3 (ANT) = d10-Acenaphthene
IS4 (PHN) = d10-Phenanthrene
IS5 (CRY) = d12-Chrysene
IS6 (PRY) = d12-Perylene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: CHAZEN

Lab Code: 10145 Case No.: 984-115 SAS No.: _____ SDG No.: B-38

Lab File ID (Standard): BO916.D Date Analyzed: 04/15/98

Instrument ID: MS #2 Time Analyzed: 12:25

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	42492	6.35	151660	8.95	83483	12.37
UPPER LIMIT	84984	6.85	303320	9.45	166966	12.87
LOWER LIMIT	21246	5.85	75830	8.45	41742	11.87
EPA SAMPLE NO.						
01 B-28-10'	49125	6.34	170602	8.94	95562	12.36

IS1 (DCB) = d4-1,4-Dichlorobenzene
IS2 (NPT) = d8-Naphthalene
IS3 (ANT) = d10-Acenaphthene
IS4 (PHN) = d10-Phenanthrene
IS5 (CRY) = d12-Chrysene
IS6 (PRY) = d12-Perylene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: CHAZEN

Lab Code: 10145 Case No.: 984-115 SAS No.: _____ SDG No.: B-38

Lab File ID (Standard): BO916.D Date Analyzed: 04/15/98

Instrument ID: MS #2 Time Analyzed: 12:25

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	157698	14.79	130938	19.01	150528	21.11
UPPER LIMIT	315396	15.29	261876	19.51	301056	21.61
LOWER LIMIT	78849	14.29	65469	18.51	75264	20.61
EPA SAMPLE NO.						
01 B-28-10'	175865	14.78	133912	19.00	129995	21.11

IS1 (DCB) = d4-1,4-Dichlorobenzene
IS2 (NPT) = d8-Naphthalene
IS3 (ANT) = d10-Acenaphthene
IS4 (PHN) = d10-Phenanthrene
IS5 (CRY) = d12-Chrysene
IS6 (PRY) = d12-Perylene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: Chazen

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: B-38

Lab File ID (Standard): BP013.D Date Analyzed: 04/23/98

Instrument ID: MS #2 Time Analyzed: 14:31

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	45351	6.29	166699	8.89	97980	12.31
	UPPER LIMIT	90702	6.79	333398	9.39	195960	12.81
	LOWER LIMIT	22676	5.79	83350	8.39	48990	11.81
	EPA SAMPLE NO.						
01	SBLK1	42427	6.29	140573	8.88	84860	12.31
02	SBLK1MS	38295	6.30	135077	8.89	82724	12.31
03	B-2 WATER	43904	6.29	143981	8.89	85974	12.31

IS1 (DCB) = d4-1,4-Dichlorobenzene
IS2 (NPT) = d8-Naphthalene
IS3 (ANT) = d10-Acenaphthene
IS4 (PHN) = d10-Phenanthrene
IS5 (CRY) = d12-Chrysene
IS6 (PRY) = d12-Perylene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: Chazen

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: B-38

Lab File ID (Standard): BP013.D Date Analyzed: 04/23/98

Instrument ID: MS #2 Time Analyzed: 14:31

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	189115	14.74	151121	18.96	163157	21.06
	UPPER LIMIT	378230	15.24	302242	19.46	326314	21.56
	LOWER LIMIT	94558	14.24	75561	18.46	81579	20.56
	EPA SAMPLE NO.						
01	SBLK1	172832	14.73	184364	18.95	186573	21.05
02	SBLK1MS	172510	14.74	177891	18.95	181353	21.04
03	B-2 WATER	159871	14.74	90532	18.99	82796	21.10

IS1 (DCB) = d4-1,4-Dichlorobenzene
IS2 (NPT) = d8-Naphthalene
IS3 (ANT) = d10-Acenaphthene
IS4 (PHN) = d10-Phenanthrene
IS5 (CRY) = d12-Chrysene
IS6 (PRY) = d12-Perylene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

00147

DATA REVIEW

for

CHAZEN ENVIRONMENTAL SERVICES, INC.

PAGE PARK, MANCHESTER ROAD

P.O. BOX 3479

POUGHKEEPSIE, NEW YORK 12603

GREER TOYOTA
Sampled 4/1/98

SAMPLE DELIVERY GROUP 9804000115

SOIL AND AQUEOUS SAMPLES for VOLATILE ORGANICS

B-3 8-10'	(203790)	B-2 8-10'	(203791)
B-1 6-8'	(203792)	B-2 water	(204298)

DATA ASSESSMENT

A volatile organics data package containing analytical results for three soils and one aqueous sample was received from Chazen Environmental Services on 980513. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Greer Toyota site, were identified by Chain of Custody documents and trackable through the work of Columbia Analytical Services, the laboratory contracted for analysis. Analyses, performed by EPA Method 8260A, addressed Target Compound List analytes. CRDLs reflected RCRA TCL requirements. Laboratory data was evaluated according to the requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP) and the cited method. Where the required protocol was not followed, the current Region II Functional Guidelines (SOW HW-6,Rev 8, CLP Organics Data Review and Preliminary Review, Jan. 1992) was used as a technical reference.

The handling of B-2-Water requires that results from this sample be qualified. The sample was collected without preservation, shipped at 15°C, and held beyond its holding time limitation prior to analysis. Negative results have been rejected. Positive results have been qualified as estimations.

The initial instrument calibrations for 2-butanone, 2-hexanone and 4-methyl-2-pentanone failed to demonstrate PQL. Based on this observation, the negative results reported for these ketones have been qualified as usable estimations.

The chromatography of B-2 8-10' and B-2-Water contained a fingerprint pattern indicative of the presence of petroleum. Analytes reported from these samples were consistent with this observation.

CORRECTNESS AND USABILITY

The identification of chlorobenzene in B-2-Water could not be verified with the reference mass spectra included in the raw data. The sample spectra was overwhelmed with mass fragment contributions from coeluting peaks. Chlorobenzene should be considered undetected in this sample.

The results reported for this group of samples should be considered correct and completely usable in there present form. Data felt to represent a usable estimation of the conditions being measured has been flagged "J" or "UJ". Data felt to be unreliable has been identified with single red line and flagged "R". Rejected data should not be included in data tables. Estimated data should be used with caution.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be

guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 6/1/98

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Sample holding times are calculated from the time of receipt, by the laboratory. Samples must remain chilled to 4°C from the time of collection. Soil samples and groundwater preserved with HCl must be analyzed within 10 days of receipt; unpreserved samples within 7 days. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This group of samples was collected from the Greer Toyota site on 980401. Three soil samples were shipped via Airborne Express on 980402 and received by the laboratory the following morning. A cooler temperature of 5°C was recorded by the laboratory at the time of receipt.

A single aqueous sample, B-2-Water, was collected on 980401 and held in the field until 980403 prior to shipment via Airborne Express. The sample cooler was delivered to the laboratory the following Monday (980406). At the time of receipt, a cooler temperature of 15°C was recorded. Due to the extended time in transit and the exposure to elevated temperatures, the possibility of volatile losses from this sample cannot be ignored. Analyte concentrations reported from this sample should be assumed to represent the lowest levels likely to be present. A significant negative bias should be assumed.

Each soil sample was analyzed for volatile organics on 980415. Although not consistent with ASP protocol, the SW-846 holding time requirement for soils was satisfied.

The unpreserved aqueous sample was also analyzed on 980415, exceeding ASP and SW-846 holding time limitations. When the previous concerns related to the handling of this sample are also considered, data obtained from this sample must be considered unreliable. Negative results have been rejected. Positive results have been qualified as estimations.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank. Any sample concentration less than 5 times the level determined in a blank must be qualified. The qualification criteria is extended to ten times the concentration observed in blanks for common laboratory artifacts. These include acetone, methylene chloride and 2-butanone. Chloroform is also frequently present as a laboratory artifact.

Two method blanks were associated with this group of samples. Trip and Field Blanks were not included. Both blanks were free of target analyte contamination.

MS TUNING

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of BFB was analyzed prior to each analytical sequence and during every 12 hour period of instrument operation. An Instrument Performance Check Form is present for each BFB evaluation. BFB tunes associated with this group of samples satisfied acceptance criteria.

CALIBRATION

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The required levels of initial calibration were performed on 980414 and 980415. Standards of 5, 20, 50, 100, 150 and 200 µg/L were included. The 980415 calibration incorporated a heated purge. Ketones were not reported from the 5 µg/l standard. Because 2-butanone, 2-hexanone and 4-methyl-2-pentanone calibrations failed to demonstrate PQL, negative results reported for these analytes have been qualified as estimations.

The initial instrument calibration for each targeted analyte demonstrated an acceptable degree of linearity and the required level of response at each reported concentration.

Both initial calibrations were verified on 980415. When compared to the initial instrument calibration, both checks demonstrated an acceptable level of instrument stability.

SURROGATES

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structure of surrogates is similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Surrogate Summary Sheets were not prepared. Surrogate recoveries were reported on Form 1. The recovery of surrogates added to each program sample satisfied the laboratory's acceptance requirements. Excellent recoveries were reported for each surrogate standard.

INTERNAL STANDARDS
Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the recovery of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

Internal standard recoveries were stable throughout this work. The laboratory correctly calculated control limits for internal standard areas and retention times. The response of each internal standard that was added to program samples was within the calculated limits of acceptance.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS
Matrix spiking refers to the addition of known analyte concentrations to a sample prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Sample B-3 8-10' was selected for matrix spiking. Spikes to two aliquots of this sample demonstrated acceptable levels of measurement accuracy and precision. Spikes to an aqueous matrix were not reported.

DUPLICATES
Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates were not included in this group of samples.

SAMPLE INFORMATION
Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument printouts. Sample chromatograms were properly attenuated, demonstrating stable baselines. The data package also included laboratory reference spectra which provided a conclusive identification of each reported analyte. Analyte concentrations are correct as reported.

It is noted that the reference spectra provided to confirm the identification of acetone in B-3 8-10' was overwhelmed by contributions from Freon 113. The identification of acetone in this sample was confirmed using an office reference.

The identification of chlorobenzene in B-2-Water could not be confirmed using the mass spectra provided by the laboratory. Chlorobenzene should be considered undetected in this sample.

The chromatography of B-2 8-10' and B-2-Water contained fingerprint patterns that indicated the presence of petroleum. Analytes reported from these samples were consistent with this observation.

QUALIFIED DATA

GREER TOYOTA SITE
CHAZEN ENVIRONMENTAL SERVICES

SAMPLED 4/1/98 SAMPLE GROUP 9804000115

		HANDLING	HANDLING	KETONE* CALIBRATE	CHLOROBENZENE MASS SPECTRA
B-3 8-10'	(203790)			UJ	
B-2 8-10'	(203791)			UJ	
B-1 6-8'	(203792)			UJ	
B-2 water	(204298)	POS. J	NEG. REJECT	UJ	UJ

KETONES = 2-butanone, 2-hexanone, 4-methyl-2-pentanone

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-3 8-10'

Date Sampled : 04/01/98 **Order #:** 203790 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:** 9804000115 **Percent Solid:** 84.4

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/15/98			
ANALYTICAL DILUTION: 1.0			Dry Weight
ACETONE	20	15 J	UG/KG
BENZENE	5.0	5.9 U	UG/KG
BROMODICHLOROMETHANE	5.0	5.9 U	UG/KG
BROMOFORM	5.0	5.9 U	UG/KG
BROMOMETHANE	5.0	5.9 U	UG/KG
2-BUTANONE (MEK)	10	12 ~~U~~ UJ	UG/KG
CARBON DISULFIDE	10	12 U	UG/KG
CARBON TETRACHLORIDE	5.0	5.9 U	UG/KG
CHLOROBENZENE	5.0	5.9 U	UG/KG
CHLOROETHANE	5.0	5.9 U	UG/KG
CHLOROFORM	5.0	5.9 U	UG/KG
CHLOROMETHANE	5.0	5.9 U	UG/KG
BROMOCHLOROMETHANE	5.0	5.9 U	UG/KG
1,1-DICHLOROETHANE	5.0	5.9 U	UG/KG
1,2-DICHLOROETHANE	5.0	5.9 U	UG/KG
1,1-DICHLOROETHENE	5.0	5.9 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	5.9 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	5.9 U	UG/KG
1,2-DICHLOROPROPANE	5.0	5.9 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	5.9 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	5.9 U	UG/KG
ETHYLBENZENE	5.0	5.9 U	UG/KG
2-HEXANONE	10	12 ~~U~~ UJ	UG/KG
METHYLENE CHLORIDE	5.0	5.9 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	12 ~~U~~ UJ	UG/KG
STYRENE	5.0	5.9 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	5.9 U	UG/KG
TETRACHLOROETHENE	5.0	5.9 U	UG/KG
TOLUENE	5.0	5.9 U	UG/KG
1,1,1-TRICHLOROETHANE	5.0	5.9 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	5.9 U	UG/KG
TRICHLOROETHENE	5.0	5.9 U	UG/KG
VINYL CHLORIDE	5.0	5.9 U	UG/KG
O-XYLENE	5.0	5.9 U	UG/KG
M+P-XYLENE	5.0	5.9 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS			
BROMOFLUOROBENZENE	(74 - 121 %)		93	%
TOLUENE-D8	(81 - 117 %)	J33	92	%
DIBROMOFLUOROMETHANE	(80 - 120 %)		95	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-2 8-10'

Date Sampled : 04/01/98 **Order #:** 203791 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:** 9804000115 **Percent Solid:** 83.8

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/15/98			
ANALYTICAL DILUTION: 5.0			Dry Weight
ACETONE	20	120 U	UG/KG
BENZENE	5.0	19 J	UG/KG
BROMODICHLOROMETHANE	5.0	30 U	UG/KG
BROMOFORM	5.0	30 U	UG/KG
BROMOMETHANE	5.0	30 U	UG/KG
2-BUTANONE (MEK)	10	60 ~~U~~ UJ	UG/KG
CARBON DISULFIDE	10	60 U	UG/KG
CARBON TETRACHLORIDE	5.0	30 U	UG/KG
CHLOROBENZENE	5.0	30 U	UG/KG
CHLOROETHANE	5.0	30 U	UG/KG
CHLOROFORM	5.0	30 U	UG/KG
CHLOROMETHANE	5.0	30 U	UG/KG
BROMOCHLOROMETHANE	5.0	30 U	UG/KG
1-DICHLOROETHANE	5.0	30 U	UG/KG
,2-DICHLOROETHANE	5.0	30 U	UG/KG
1,1-DICHLOROETHENE	5.0	30 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	30 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	30 U	UG/KG
1,2-DICHLOROPROPANE	5.0	30 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	30 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	30 U	UG/KG
ETHYLBENZENE	5.0	180	UG/KG
2-HEXANONE	10	60 ~~U~~ UJ	UG/KG
METHYLENE CHLORIDE	5.0	30 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	60 ~~U~~ UJ	UG/KG
STYRENE	5.0	30 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	30 U	UG/KG
TETRACHLOROETHENE	5.0	30 U	UG/KG
TOLUENE	5.0	57	UG/KG
1,1,1-TRICHLOROETHANE	5.0	30 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	30 U	UG/KG
TRICHLOROETHENE	5.0	30 U	UG/KG
VINYL CHLORIDE	5.0	30 U	UG/KG
O-XYLENE	5.0	290	UG/KG
M+P-XYLENE	5.0	690	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(74 - 121 %)	92	%
OLUENE-D8	(81 - 117 %)	93	%
DIBROMOFLUOROMETHANE	(80 - 120 %)	95	%

00037

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-1 6-8'

Date Sampled : 04/01/98 **Order #:** 203792 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:** 9804000115 **Percent Solid:** 69.4

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/15/98			
ANALYTICAL DILUTION: 1.0			Dry Weight
ACETONE	20	29 U	UG/KG
BENZENE	5.0	7.2 U	UG/KG
BROMODICHLOROMETHANE	5.0	7.2 U	UG/KG
BROMOFORM	5.0	7.2 U	UG/KG
BROMOMETHANE	5.0	7.2 U	UG/KG
2-BUTANONE (MEK)	10	14 ~~U~~ UJ	UG/KG
CARBON DISULFIDE	10	14 U	UG/KG
CARBON TETRACHLORIDE	5.0	7.2 U	UG/KG
CHLOROBENZENE	5.0	7.2 U	UG/KG
CHLOROETHANE	5.0	7.2 U	UG/KG
CHLOROFORM	5.0	7.2 U	UG/KG
CHLOROMETHANE	5.0	7.2 U	UG/KG
BROMOCHLOROMETHANE	5.0	7.2 U	UG/KG
1-DICHLOROETHANE	5.0	7.2 U	UG/KG
,2-DICHLOROETHANE	5.0	7.2 U	UG/KG
1,1-DICHLOROETHENE	5.0	7.2 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	7.2 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	7.2 U	UG/KG
1,2-DICHLOROPROPANE	5.0	7.2 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	7.2 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	7.2 U	UG/KG
ETHYLBENZENE	5.0	7.2 U	UG/KG
2-HEXANONE	10	14 ~~U~~ UJ	UG/KG
METHYLENE CHLORIDE	5.0	7.2 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	14 ~~U~~ UJ	UG/KG
STYRENE	5.0	7.2 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	7.2 U	UG/KG
TETRACHLOROETHENE	5.0	7.2 U	UG/KG
TOLUENE	5.0	7.2 U	UG/KG
1,1,1-TRICHLOROETHANE	5.0	7.2 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	7.2 U	UG/KG
TRICHLOROETHENE	5.0	7.2 U	UG/KG
VINYL CHLORIDE	5.0	7.2 U	UG/KG
O-XYLENE	5.0	7.2 U	UG/KG
M+P-XYLENE	5.0	7.2 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(74 - 121 %)	80	%
OLUENE-D8	(81 - 117 %)	89	%
DIBROMOFLUOROMETHANE	(80 - 120 %)	98	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 05/06/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-2 WATER

Date Sampled : 04/01/98 **Order #:** 204298 **Sample Matrix:** WATER
Date Received: 04/06/98 **Submission #:** 9804000115 **Analytical Run** 25849

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/15/98			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	~~20 U~~ R	UG/L
BENZENE	5.0	10 J	UG/L
BROMODICHLOROMETHANE	5.0	~~5.0 U~~	UG/L
BROMOFORM	5.0	~~5.0 U~~	UG/L
BROMOMETHANE	5.0	~~5.0 U~~ R	UG/L
2-BUTANONE (MEK)	10	~~10 U~~	UG/L
CARBON DISULFIDE	10	~~10 U~~	UG/L
CARBON TETRACHLORIDE	5.0	~~5.0 U~~	UG/L
CHLOROBENZENE	5.0	~~5.0 U~~ R	UG/L
CHLOROETHANE	5.0	~~5.0 U~~	UG/L
CHLOROFORM	5.0	~~5.0 U~~	UG/L
CHLOROMETHANE	5.0	~~5.0 U~~	UG/L
DIBROMOCHLOROMETHANE	5.0	~~5.0 U~~	UG/L
1,1-DICHLOROETHANE	5.0	~~5.0 U~~	UG/L
1,2-DICHLOROETHANE	5.0	~~5.0 U~~ R	UG/L
1,1-DICHLOROETHENE	5.0	~~5.0 U~~	UG/L
CIS-1,2-DICHLOROETHENE	5.0	~~5.0 U~~	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	~~5.0 U~~	UG/L
1,2-DICHLOROPROPANE	5.0	~~5.0 U~~	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	~~5.0 U~~	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	~~5.0 U~~	UG/L
ETHYLBENZENE	5.0	33 J	UG/L
2-HEXANONE	10	~~10 U~~	UG/L
METHYLENE CHLORIDE	5.0	~~5.0 U~~	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	~~10 U~~	UG/L
STYRENE	5.0	~~5.0 U~~ R	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	~~5.0 U~~	UG/L
TETRACHLOROETHENE	5.0	~~5.0 U~~	UG/L
TOLUENE	5.0	30 J	UG/L
1,1,1-TRICHLOROETHANE	5.0	~~5.0 U~~	UG/L
1,1,2-TRICHLOROETHANE	5.0	~~5.0 U~~	UG/L
TRICHLOROETHENE	5.0	~~5.0 U~~ R	UG/L
VINYL CHLORIDE	5.0	~~5.0 U~~	UG/L
O-XYLENE	5.0	27 J	UG/L
M+P-XYLENE	5.0	220 J	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(86 - 115 %)	109	%
TOLUENE-D8	(88 - 110 %)	104	%
DIBROMOFLUOROMETHANE	(86 - 118 %) ✓	94	%

00048

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
SOIL/SEDIMENT

Spiked Order No. : 203790 The Chazen Companies

Client ID: B-3 8-10'

Files R8515, R8516

JJJ

Test: 8260B TCL

Analytical Units: UG/KG

Run Number : 25849

Percent Solid : 84.4

			MATRIX SPIKE		MATRIX SPIKE DUP.			QC LIMITS	
ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.
BENZENE	59.2	0	52.1	88	53.3	90	2	21	66 - 142
CHLOROBENZENE	59.2	0	49.8	84	49.8	84	0	21	60 - 133
1,1-DICHLOROETHENE	59.2	0	48.6	82	47.4	80	3	22	59 - 172
TOLUENE	59.2	0	48.6	82	47.4	80	3	21	59 - 139
TRICHLOROETHENE	59.2	0	47.4	80	46.2	78	3	24	62 - 137

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 8260B TCL

LABORATORY REFERENCE SPIKE SUMMARY

REFERENCE ORDER #: 208193 ANALYTICAL RUN # : 25849

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 4/15/98			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	165	21 - 165
BENZENE	20	93	37 - 151
BROMODICHLOROMETHANE	20	90	35 - 155
BROMOFORM	20	87	45 - 169
BROMOMETHANE	20	62	10 - 242
2-BUTANONE (MEK)	20	117	25 - 162
CARBON DISULFIDE	20	84	45 - 148
CARBON TETRACHLORIDE	20	86	70 - 140
CHLOROBENZENE	20	93	37 - 160
CHLOROETHANE	20	83	53 - 149
CHLOROFORM	20	91	51 - 138
CHLOROMETHANE	20	56	10 - 273
DIBROMOCHLOROMETHANE	20	88	53 - 149
1,1-DICHLOROETHANE	20	83	59 - 155
1,2-DICHLOROETHANE	20	91	49 - 155
1,1-DICHLOROETHENE	20	86	10 - 234
CIS-1,2-DICHLOROETHENE	20	86	54 - 156
TRANS-1,2-DICHLOROETHENE	20	91	54 - 156
1,2-DICHLOROPROPANE	20	88	10 - 210
CIS-1,3-DICHLOROPROPENE	20	84	10 - 227
TRANS-1,3-DICHLOROPROPENE	20	86	17 - 183
ETHYLBENZENE	20	93	37 - 162
2-HEXANONE	20	150	22 - 155
METHYLENE CHLORIDE	20	86	10 - 221
4-METHYL-2-PENTANONE (MIBK)	20	108	46 - 157
STYRENE	40	96	66 - 144
1,1,2,2-TETRACHLOROETHANE	20	99	46 - 157
TETRACHLOROETHENE	20	85	64 - 148
TOLUENE	20	89	47 - 150
1,1,1-TRICHLOROETHANE	20	87	52 - 162
1,1,2-TRICHLOROETHANE	20	89	52 - 150
TRICHLOROETHENE	20	86	71 - 157
VINYL CHLORIDE	20	80	10 - 251
O-XYLENE	40	92	71 - 135
M+P-XYLENE	40	94	71 - 135

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: CAS Rochester Contract: CHAZEN

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: _____

Lab File ID: R8507.D Lab Sample ID: VBLK01

Date Analyzed: 04/15/98 Time Analyzed: 10:25

GC Column: RX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: GCMS#5

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	203791 5.0	203791 5.0	R8512.D	14:04
02	203790 1.0	203790 1.0	R8513.D	15:10
03	203792 1.0	203792 1.0	R8514.D	15:49
04	203790 1.0MS	203970 1.0MS	R8515.D	16:25
05	203790 1.0MSD	203790 1.0MSD	R8516.D	17:05
06	QC/REF	QC/REF	R8517.D	17:47

RJH 4/30

COMMENTS

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLK01

Lab Name: CAS-ROC Contract: CHAZEN

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: _____

Lab File ID: X6428.D Lab Sample ID: VBLK01

Date Analyzed: 04/15/98 Time Analyzed: 10:01

GC Column: RESTEK ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS#3

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	204298 1.0	204298 1.0	X6433.D	14:02

RJH 4/30

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS-ROC Contract: Chazen

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: _____

Lab File ID: X6382.D BFB Injection Date: 04/13/98

Instrument ID: GCMS#3 BFB Injection Time: 16:12

GC Column: RESTEK50 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.8
75	30.0 - 66.0% of mass 95	54.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	92.1
175	4.0 - 9.0% of mass 174	6.5 (7.1)1
176	93.0 - 101.0% of mass 174	88.9 (96.5)1
177	5.0 - 9.0% of mass 176	6.4 (7.2)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	50 PPB	X6383.D	04/13/98	16:31
02	VSTD005	5.0 PPB	X6385.D	04/13/98	18:06
03	VSTD020	20.0 PPB	X6386.D	04/13/98	18:48
04	VSTD100	100.0 PPB	X6387.D	04/13/98	19:31
05	VSTD150	150.0 PPB	X6388.D	04/13/98	20:14
06	VSTD200	200.0 PPB	X6389.D	04/13/98	20:57

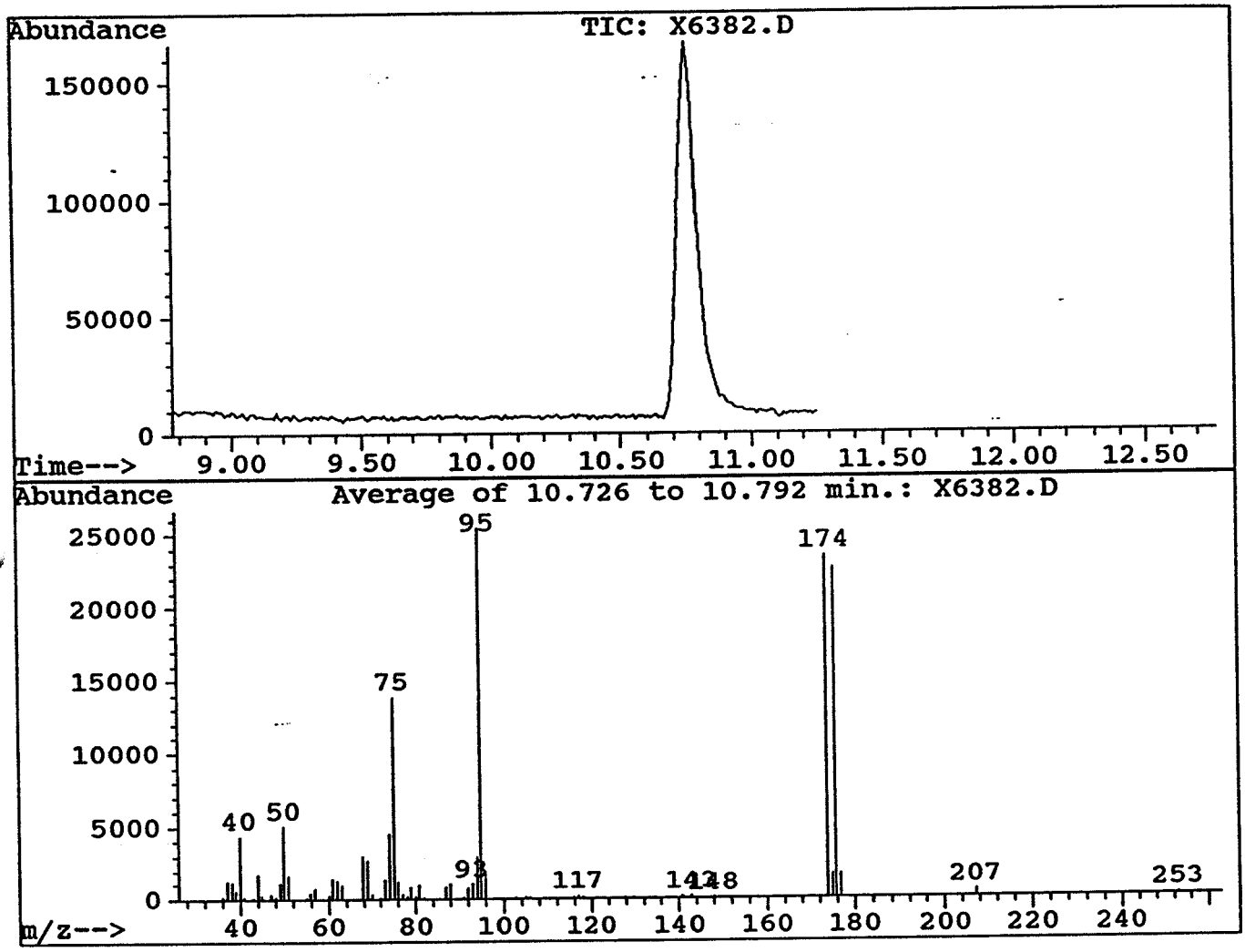
RJH 4/30

BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\041398\X6382.D
Acq On : 13 Apr 98 4:12 pm
Sample : TUNE CHECK
Misc :

Vial: 11
Operator: TTRAVER
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FVOA320.M
Title : 8260voa



Peak Apex is scan: 239

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.8	5035	PASS
75	95	30	60	54.4	13856	PASS
95	95	100	100	100.0	25450	PASS
96	95	5	9	7.6	1929	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	92.1	23446	PASS
175	174	5	9	7.1	1666	PASS
176	174	95	101	96.5	22637	PASS
177	176	5	9	7.2	1628	PASS

X6382.D FVOA320.M Mon Apr 13 16:24:21 1998

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS Rochester Contract: CHAZEN

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: _____

Lab File ID: R8497.D BFB Injection Date: 04/14/98

Instrument ID: GCMS#5 BFB Injection Time: 17:16

GC Column: RX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.2
75	30.0 - 60.0% of mass 95	41.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	65.0
175	5.0 - 9.0% of mass 174	3.9 (5.9)1
176	95.0 - 101.0% of mass 174	64.0 (98.3)1
177	5.0 - 9.0% of mass 176	4.4 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	5.0PPB	5.0PPB	R8498.D	04/14/98	17:35
02	20PPB	20PPB	R8499.D	04/14/98	18:17
03	50PPB	50PPB	R8500.D	04/14/98	18:59
04	100PPB	100PPB	R8501.D	04/14/98	19:41
05	150PPB	150PPB	R8502.D	04/14/98	20:23
06	200PPB	200PPB	R8503.D	04/14/98	21:05

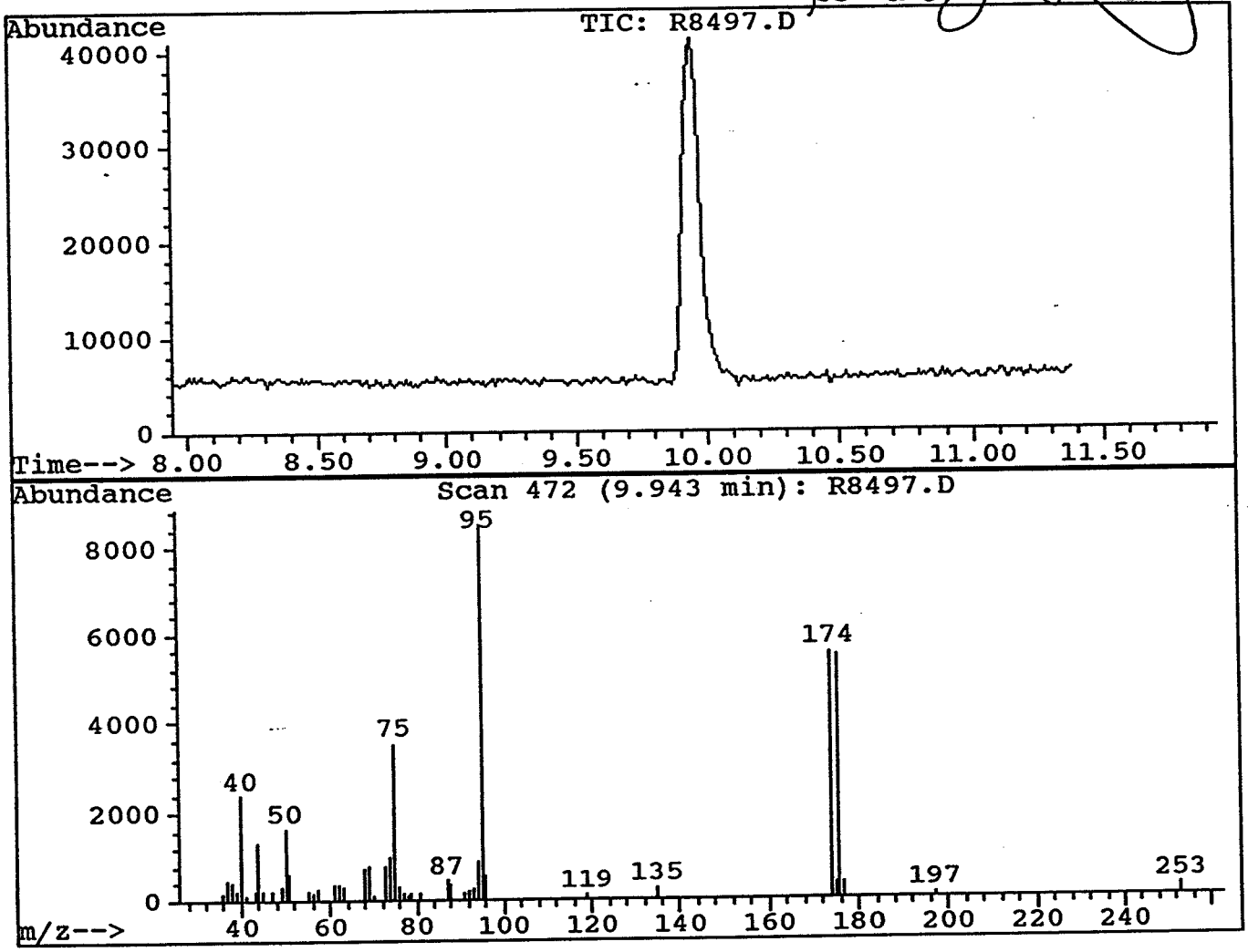
RJH 4/30

BFB

Data File : C:\HPCHEM\1\DATA\R8497.D
Acq On : 14 Apr 98 5:16 pm
Sample : TUNE CHECK
Misc :

Vial: 6
Operator: HERRING
Inst : 5971 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SOIL414.M
Title : 8260voa



Peak Apex is scan: 472

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	1635	PASS
75	95	30	60	41.3	3522	PASS
95	95	100	100	100.0	8519	PASS
96	95	5	9	6.5	556	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	65.0	5540	PASS
175	174	5	9	5.9	329	PASS
176	174	95	101	98.3	5448	PASS
177	176	5	9	6.9	377	PASS

R8497.D SOIL414.M Tue Apr 14 17:28:55 1998

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS Rochester Contract: CHAZEN

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: _____

Lab File ID: R8505.D BFB Injection Date: 04/15/98

Instrument ID: GCMS#5 BFB Injection Time: 08:54

GC Column: RX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.1
75	30.0 - 60.0% of mass 95	41.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	61.6
175	5.0 - 9.0% of mass 174	4.1 (6.7)1
176	95.0 - 101.0% of mass 174	60.6 (98.4)1
177	5.0 - 9.0% of mass 176	3.8 (6.2)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	R8506.D	04/15/98	09:15
02	VBLK01	VBLK01	R8507.D	04/15/98	10:25
03	203791 5.0	203791 5.0	R8512.D	04/15/98	14:04
04	203790 1.0	203790 1.0	R8513.D	04/15/98	15:10
05	203792 1.0	203792 1.0	R8514.D	04/15/98	15:49
06	203790 1.0MS	203970 1.0MS	R8515.D	04/15/98	16:25
07	203790 1.0MSD	203790 1.0MSD	R8516.D	04/15/98	17:05
08	QC/REF	QC/REF	R8517.D	04/15/98	17:47

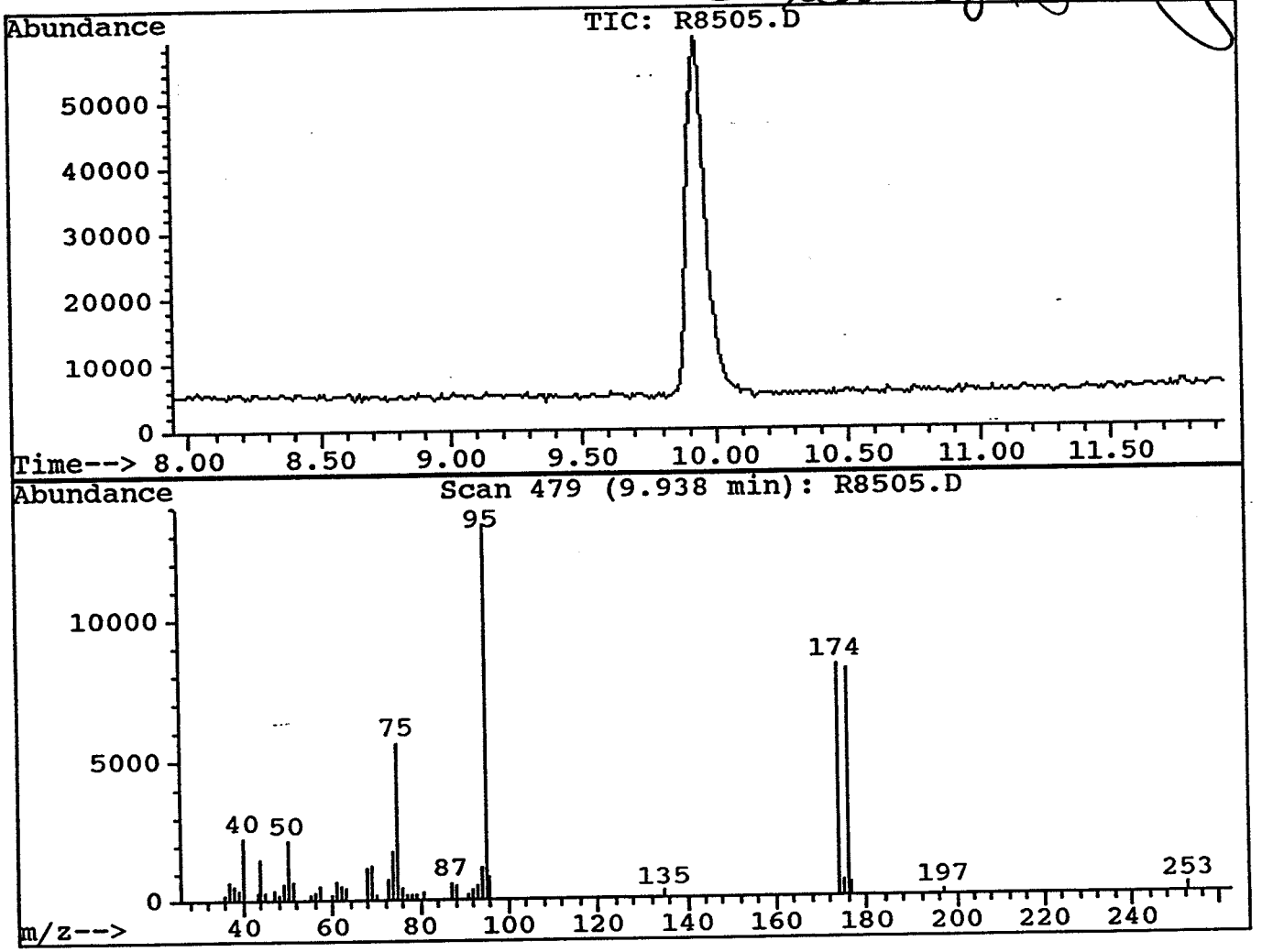
RJH 4/30

BFB

Data File : C:\HPCHEM\1\DATA\R8505.D
Acq On : 15 Apr 98 8:54 am
Sample : TUNE CHECK
Misc :

Vial: 7
Operator: HERRING
Inst : 5971 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SOIL414.M
Title : 8260voa



Peak Apex is scan: 479

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.1	2146	PASS
75	95	30	60	41.9	5586	PASS
95	95	100	100	100.0	13339	PASS
96	95	5	9	5.8	778	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	61.6	8217	PASS
175	174	5	9	6.7	553	PASS
176	174	95	101	98.4	8082	PASS
177	176	5	9	6.2	505	PASS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS-ROC Contract: CHAZEN

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: _____

Lab File ID: X6426.D BFB Injection Date: 04/15/98

Instrument ID: GCMS#3 BFB Injection Time: 08:44

GC Column: RESTEK50 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.7
75	30.0 - 66.0% of mass 95	49.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.7 (0.8)1
174	50.0 - 120.0% of mass 95	89.8
175	4.0 - 9.0% of mass 174	5.7 (6.4)1
176	93.0 - 101.0% of mass 174	87.2 (97.1)1
177	5.0 - 9.0% of mass 176	6.2 (7.1)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	X6427.D	04/15/98	09:16
02	VBLK01	VBLK01	X6428.D	04/15/98	10:01
03	204298 1.0	204298 1.0	X6433.D	04/15/98	14:02

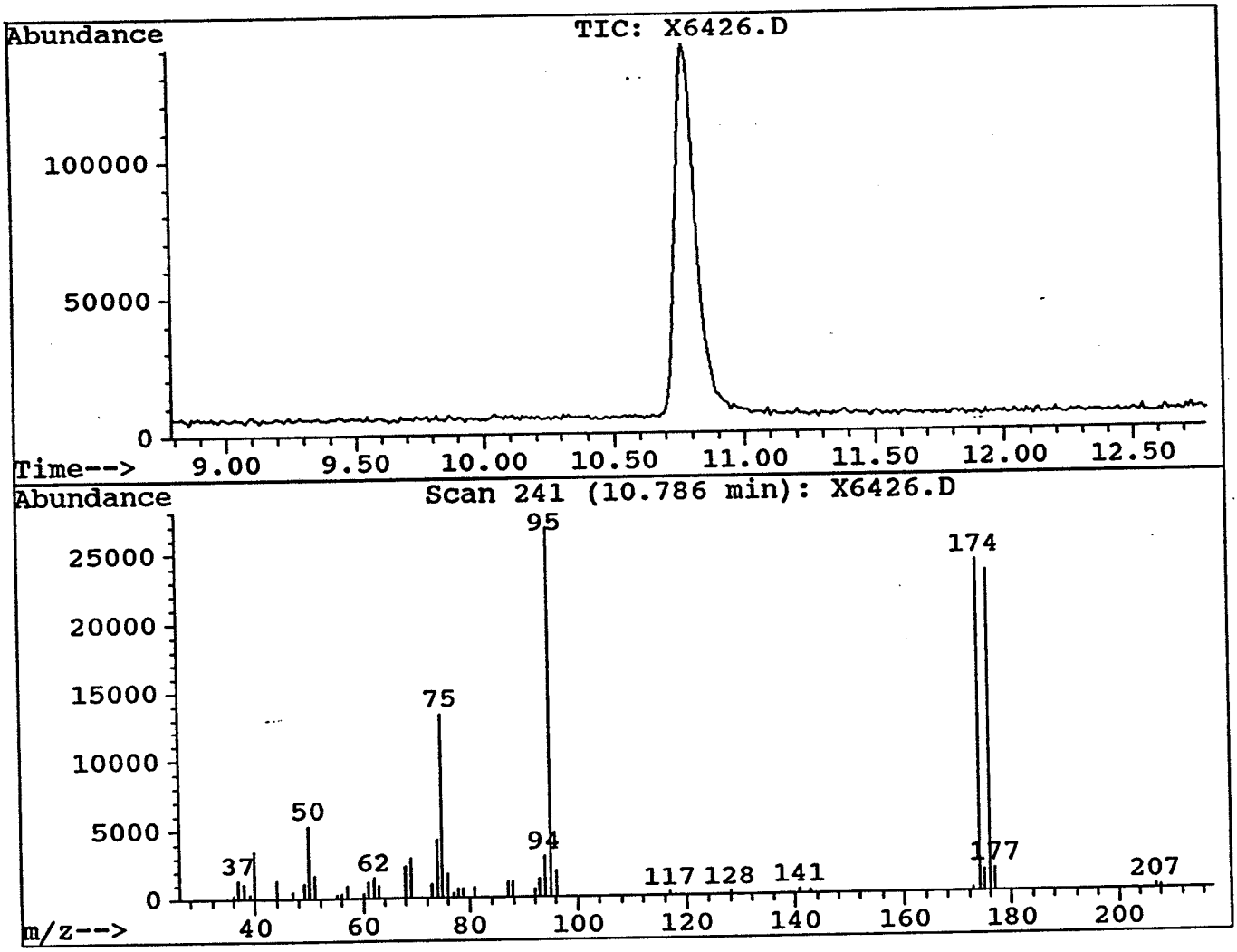
RJ 4/30

BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\041598\X6426.D
Acq On : 15 Apr 98 8:44 am
Sample : TUNE CHECK
Misc :

Vial: 1
Operator: TTRAVER
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FVOA413.M
Title : 8260voa



Peak Apex is scan: 241

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.7	5279	PASS
75	95	30	60	49.5	13281	PASS
95	95	100	100	100.0	26808	PASS
96	95	5	9	7.1	1900	PASS
173	174	0	2	0.8	200	PASS
174	95	50	100	89.8	24072	PASS
175	174	5	9	6.4	1540	PASS
176	174	95	101	97.1	23376	PASS
177	176	5	9	7.1	1659	PASS

X6426.D FVOA413.M Wed Apr 15 08:58:41 1998

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS Rochester Contract: CHAZEN

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): R8506.D Date Analyzed: 04/15/98

Instrument ID: GCMS#5 Time Analyzed: 09:15

GC Column: RX502.2 ID: 0.53 (mm) Heated Purge (Y/N): Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	222711	10.92	417443	13.04	298644	19.88
UPPER LIMIT	445422	10.42	834886	12.54	597288	19.38
LOWER LIMIT	111356	11.42	208722	13.54	149322	20.38
EPA SAMPLE NO.						
01 VBLK01	262218	10.90	478569	13.04	341729	19.91
02 203791 5.0	258342	10.94	475597	13.06	333433	19.90
03 203790 1.0	257863	10.93	476389	13.05	342274	19.91
04 203792 1.0	249440	10.94	440830	13.06	289848	19.92
05 203790 1.0MS	261102	10.90	470344	13.05	337051	19.92
06 203790 1.0MS	255498	10.92	459055	13.04	326344	19.92
07 QC/REF	229786	10.91	420611	13.03	295490	19.91

RJH 4/30

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = d5-Chlorobenze
IS4 = d4-1,4-Dichlorobenzene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS Rochester Contract: CHAZEN

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): R8506.D Date Analyzed: 04/15/98

Instrument ID: GCMS#5 Time Analyzed: 09:15

GC Column: RX502.2 ID: 0.53 (mm) Heated Purge (Y/N): Y

	IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	120038	25.76				
UPPER LIMIT	240076	25.26				
LOWER LIMIT	60019	26.26				
EPA SAMPLE NO.						
01 VBLK01	137426	25.77				
02 203791 5.0	133535	25.76				
03 203790 1.0	143292	25.78				
04 203792 1.0	103642	25.78				
05 203790 1.0MS	139761	25.79				
06 203790 1.0MS	140860	25.79				
07 QC/REF	130413	25.78				

RJH 4/30

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = d5-Chlorobenze
IS4 = d4-1,4-Dichlorobenzene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROC Contract: CHAZEN

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): X6427.D Date Analyzed: 04/15/98

Instrument ID: GCMS#3 Time Analyzed: 09:16

GC Column: RESTEK50 ID: 0.53 (mm) Heated Purge (Y/N): N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	2537232	11.24	3542141	13.52	2760796	20.73
UPPER LIMIT	5074464	10.74	7084282	13.02	5521592	20.23
LOWER LIMIT	1268616	11.74	1771071	14.02	1380398	21.23
EPA SAMPLE NO.						
01 VBLK01	2196766	11.23	3384880	13.51	2750043	20.75
02 204298 1.0	2465479	11.26	3815203	13.56	3032719	20.75

RJH 4/30

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = d5-Chlorobenze
IS4 = d4-1,4-Dichlorobenzene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROC Contract: CHAZEN

Lab Code: 10145 Case No.: 98-4-115 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): X6427.D Date Analyzed: 04/15/98

Instrument ID: GCMS#3 Time Analyzed: 09:16

GC Column: RESTEK50 ID: 0.53 (mm) Heated Purge (Y/N): N

	IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	1829126	26.87				
UPPER LIMIT	3658252	26.37				
LOWER LIMIT	914563	27.37				
EPA SAMPLE NO.						
01 VBLK01	1656992	26.87				
02 204298 1.0	1639904	26.88				

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = d5-Chlorobenze
IS4 = d4-1,4-Dichlorobenzene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

DATA REVIEW

for

CHAZEN ENVIRONMENTAL SERVICES, INC.

PAGE PARK, MANCHESTER ROAD

P.O. BOX 3479

POUGHKEEPSIE, NEW YORK 12603

GREER TOYOTA
Sampled 4/1/98

SAMPLE DELIVERY GROUP 9804000115

SOIL SAMPLES for INORGANICS

B-3 8-10' (203790) B-2 8-10' (203791)
B-1 6-8' (203792)

DATA ASSESSMENT

An inorganic data package containing analytical results for 3 soil samples was received from Chazen Environmental Services on 980513. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Greer Toyota site, were identified by Chain of Custody documents and trackable through the work of Columbia Analytical Services, the laboratory contracted for analysis. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. Laboratory data was evaluated according to the requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP). Where the required protocol was not followed, the current Region II Functional Guidelines (SOW HW-2, Rev. 11, Jan. 1992, Evaluation of Metals Data for the Contract Laboratory Program) was used as a technical reference.

The selenium CRDL standard associated with this group of samples produced a recovery of 133%. Based on this performance, positive selenium data as been qualified as usable estimations.

Arsenic and thallium ICS standards demonstrated a consistent positive bias. Although the level of interfering analytes was lower in program samples, the presence of an interelement interference cannot be ignored. Positive arsenic and thallium results have been qualified an usable estimations.

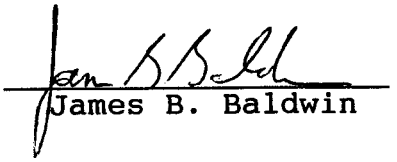
Antimony, selenium, copper, sodium and zinc spikes to B-3 8-10' produced unacceptably low recoveries. Based on this performance, associated data has been qualified as a usable estimation.

When compared to the concentrations reported from the undiluted digestate of B-3 8-10', serial dilutions of beryllium, lead and nickel produced differences in excess of 10%. This performance requires that beryllium, lead and nickel results be qualified as usable estimations.

CORRECTNESS AND USABILITY

This data package should be considered completely usable in its present form. Data that is felt to provide a usable estimation of the conditions being measured has been flagged "J", "BJ" or "UJ". Unreliable data has been identified with a single red line. Rejected data should not be included in data tables. Estimated data should be used with caution.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature:  Date: 6/1/98

James B. Baldwin

SAMPLE HISTORY
Sample holding times are calculated between the time of receipt, by the laboratory, and the time of analysis. Metal concentrations must be determined within 180 days; mercury within 26 days. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a rinsate blank, a matrix spike, a spiked blank (LCS), and a laboratory split duplicate.

This group of three soil samples was collected from the Greer Toyota site on 980401 and shipped via Airborne Express on 980402. The cooler of samples was received by the laboratory the following morning. At that time, a cooler temperature of 5°C was recorded. Each inorganic analysis was completed within established holding time limitations.

CALIBRATIONS
Calibration curves are constructed to define the linear range of each analytical instrument. Beyond this range measurements cannot be made with certainty. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) are made after every ten samples. ICV and CCV recoveries must meet established criteria.

Selenium was determined by GFAA. The initial selenium calibration included a blank and standards of 5, 15, 30 and 50 µg/l; the low standard demonstrating CRDL. The mercury calibration included a blank and standards of 0.50, 1.0, 2.0, 5.0 and 10 µg/l. The linearity of both curves satisfied program acceptance requirements.

Each calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. Each calibration verification satisfied program acceptance criteria.

CONTRACT REQUIRED DETECTION LIMIT STANDARDS (CRDL)
To verify instrument linearity near CRDL, an ICP standard at a concentration twice CRDL (CRI) is analyzed at the beginning and end of each analytical sequence. A standard equaling CRDL (CRA) must be included in each GFAA sequence. CRDL standards must produce a recovery between 80% and 120%.

The required CRDL verifications were made at the beginning of each GFAA analysis sequence, and at the beginning and end of each group of ICP samples. One CRDL standard failed to satisfy acceptance criteria. A recovery of 133% was reported for selenium. Based on this observation, positive selenium results have been qualified as usable estimations.

BLANKS
Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each set of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested, prior to analysis, with each group of samples. Each laboratory prepared blank was free of analyte contamination.

ICP INTERFERENCE CHECK SAMPLE (ICS)
ICS standards are analyzed at the beginning and end of each ICP analysis sequence to verify background and inter-element correction factors. The recovery of specified analytes are measured in the presence of high Al, Ca, Mg and Fe concentrations.

Interference check standards, ICSA and ICSAB, were run at the beginning and end of each ICP analysis sequence. Each analyte included in these standards was recovered within the range of acceptance, 80-120%. Arsenic and thallium were not included in ICS standards. However, evidence of a significant positive bias was observed. Although aluminum, calcium, iron and magnesium were reported at significantly lower concentrations in program samples, it cannot be assumed that the reported positive arsenic and thallium results are not the result of an interfering sample matrix. Positive arsenic and thallium results should be considered usable estimations.

PREDIGESTION SPIKE
The recovery of spike concentrations added to samples prior to digestion and analysis demonstrate measurement bias due to sample matrix effects. Predigestion spikes must be recovered within control limits of 75-125%.

Sample B-3 8-10' was selected for matrix spiking. Several metals added to this sample produced unacceptable spike recoveries.

ANALYTE	RECOVERY
Antimony	51%
Selenium	51%
Copper	50%
Sodium	52%
Zinc	54%

Based on this performance, reported concentrations of antimony, selenium, copper, sodium and zinc have been qualified as estimations. When interpreting data, the presence of a significant negative bias should not be ignored.

Additionally, aluminum, iron and manganese produced low spike recoveries. In each case, however, the initial sample concentration of these metals exceeded four times the spiking level. Data qualifications are not required.

DUPLICATES
Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Laboratory splits of B-3 8-10' were analyzed with this group of samples. With the exception of lead, each pair of duplicate measurements differed by less than 20%. Although lead duplicates differed by 23%, the difference was less than +/-CRDL. Data has been left unqualified.

LABORATORY CONTROL SAMPLE (LCS)
LCS standards are prepared by adding a certified standard material to a clean matrix. The prepared standard is processed as a sample to evaluate analysis protocol without interferences attributed to the sample's matrix.

A solid LCS standard (spiked blank) was analyzed with this group of samples. The recovery of each metal satisfied laboratory acceptance criteria.

ICP SERIAL DILUTION SAMPLE
Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations less than 50 times IDL are not considered.

Sample B-3 8-10' was prepared as an ICP serial dilution. Of the reported analytes, the concentrations reported for beryllium, lead and nickel exceeded 50 times IDL and produced measurements that differed by more than 10% Beryllium, lead and nickel results have been qualified as usable estimations.

GFAA FURNACE
Selenium determinations were performed by GFAA. The analysis of each sample was correctly followed by an analytical spike that satisfied the program acceptance criteria. Determinations by the Method of Standard Additions (MSA) were not required.

DATA REPORTS
All data calculations have been verified; reports are correct in their present form. Reported concentrations reflect corrections for sample size, moisture and dilutions.

SUMMARY OF ESTIMATED DATA

Greer Toyota Site — Sampled 4/1/98

		Se CRDL	As ICS	Tl ICS	Sb SPIKE	Se SPIKE	Cu SPIKE	Na SPIKE	Zn SPIKE
B-3 8-10'	(203790)	0.598J	14.1J	7.83J	UJ	0.598J	28.0J	130J	76.8J
B-2 8-10'	(203791)		13.5J	6.92J	UJ	UJ	37.6J	104J	73.3J
B-1 6-8'	(203792)	0.806J	54.5J	7.26J	UJ	0.805J	44.4J	265J	102J

SUMMARY OF ESTIMATED DATA

Greer Toyota Site

Sampled 4/1/98

		Be SERIAL	Pb SERIAL	Ni SERIAL
B-3 8-10'	(203790)	3.89J	12.7J	26.1J
B-2 8-10'	(203791)	3.76J	9.52J	22.4J
B-1 6-8'	(203792)	3.82J	357J	21.0J

COLUMBIA ANALYTICAL SERVICES

Reported: 05/08/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-3 8-10'

Date Sampled : 04/01/98 **Order #:** 203790 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:**9804000115

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ALUMINUM	10.0	13200	MG/KG	04/09/98	1.0
ANTIMONY	6.00	7.11 ~~B~~ JJ	MG/KG	04/09/98	1.0
ARSENIC	1.00	14.1 J	MG/KG	04/09/98	1.0
BARIUM	2.00	58.1	MG/KG	04/09/98	1.0
BERYLLIUM	0.500	3.89 J	MG/KG	04/09/98	1.0
CADMIUM	0.500	1.52	MG/KG	04/09/98	1.0
CALCIUM	50.0	865	MG/KG	04/14/98	1.0
CHROMIUM	1.00	14.2	MG/KG	04/09/98	1.0
COBALT	5.00	15.2	MG/KG	04/09/98	1.0
COPPER	2.00	28.0 J	MG/KG	04/14/98	1.0
IRON	10.0	24900	MG/KG	04/09/98	1.0
LEAD	5.00	12.7 J	MG/KG	04/09/98	1.0
MAGNESIUM	50.0	4740	MG/KG	04/09/98	1.0
MANGANESE	1.00	813	MG/KG	05/01/98	1.0
MERCURY	0.150	0.178 U	MG/KG	04/17/98	1.0
NICKEL	4.00	26.1 J	MG/KG	04/09/98	1.0
POTASSIUM	200	769	MG/KG	04/09/98	1.0
SELENIUM	0.500	0.598 J	MG/KG	04/24/98	1.0
SILVER	1.00	1.18 U	MG/KG	04/09/98	1.0
SODIUM	50.0	130 J	MG/KG	04/14/98	1.0
THALLIUM	1.00	7.83 J	MG/KG	04/09/98	1.0
VANADIUM	5.00	14.3	MG/KG	04/09/98	1.0
ZINC	1.00	76.8 J	MG/KG	04/14/98	1.0
WET CHEMISTRY					
PERCENT SOLIDS	1.0	84.4	%	04/08/98	1.0

JJJ

COLUMBIA ANALYTICAL SERVICES

Reported: 05/08/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-2 8-10'

Date Sampled : 04/01/98 **Order #:** 203791 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:**9804000115

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ALUMINUM	10.0	12900	MG/KG	04/09/98	1.0
ANTIMONY	6.00	7.16 ~~U~~ UJ	MG/KG	04/09/98	1.0
ARSENIC	1.00	13.5 J	MG/KG	04/09/98	1.0
BARIUM	2.00	48.9	MG/KG	04/09/98	1.0
BERYLLIUM	0.500	3.76 J	MG/KG	04/09/98	1.0
CADMIUM	0.500	1.34	MG/KG	04/09/98	1.0
CALCIUM	50.0	690	MG/KG	04/14/98	1.0
CHROMIUM	1.00	15.0	MG/KG	04/09/98	1.0
COBALT	5.00	12.8	MG/KG	04/09/98	1.0
COPPER	2.00	37.6 J	MG/KG	04/14/98	1.0
IRON	10.0	24200	MG/KG	04/09/98	1.0
LEAD	5.00	9.52 J	MG/KG	04/09/98	1.0
MAGNESIUM	50.0	4300	MG/KG	04/09/98	1.0
MANGANESE	1.00	776	MG/KG	05/01/98	1.0
MERCURY	0.150	0.179 U	MG/KG	04/17/98	1.0
NICKEL	4.00	22.4 J	MG/KG	04/09/98	1.0
POTASSIUM	200	770	MG/KG	04/09/98	1.0
SELENIUM	0.500	0.597 ~~U~~ UJ	MG/KG	04/24/98	1.0
SILVER	1.00	1.19 U	MG/KG	04/09/98	1.0
SODIUM	50.0	104 J	MG/KG	04/14/98	1.0
THALLIUM	1.00	6.92 J	MG/KG	04/09/98	1.0
VANADIUM	5.00	14.0	MG/KG	04/09/98	1.0
ZINC	1.00	73.3 J	MG/KG	04/14/98	1.0
WET CHEMISTRY					
PERCENT SOLIDS	1.0	83.8	%	04/08/98	1.0

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COLUMBIA ANALYTICAL SERVICES

Reported: 05/08/98

The Chazen Companies
Project Reference: GREER TOYOTA-INITIAL BORINGS-49799.24
Client Sample ID : B-1 6-8'

Date Sampled : 04/01/98 **Order #:** 203792 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 04/03/98 **Submission #:**9804000115

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ALUMINUM	10.0	18700	MG/KG	04/09/98	1.0
ANTIMONY	6.00	8.65 ~~U~~ J	MG/KG	04/09/98	1.0
ARSENIC	1.00	54.5 J	MG/KG	04/09/98	1.0
BARIUM	2.00	112	MG/KG	04/09/98	1.0
BERYLLIUM	0.500	3.82 J	MG/KG	04/09/98	1.0
CADMIUM	0.500	1.54	MG/KG	04/09/98	1.0
CALCIUM	50.0	2670	MG/KG	04/14/98	1.0
CHROMIUM	1.00	17.3	MG/KG	04/09/98	1.0
COBALT	5.00	11.6	MG/KG	04/09/98	1.0
COPPER	2.00	44.4 J	MG/KG	04/14/98	1.0
IRON	10.0	22500	MG/KG	04/09/98	1.0
LEAD	5.00	357 J	MG/KG	04/09/98	1.0
MAGNESIUM	50.0	3950	MG/KG	04/09/98	1.0
MANGANESE	1.00	833	MG/KG	05/01/98	1.0
MERCURY	0.150	0.216 U	MG/KG	04/17/98	1.0
NICKEL	4.00	21.0 J	MG/KG	04/09/98	1.0
POTASSIUM	200	821	MG/KG	04/09/98	1.0
SELENIUM	0.500	0.805 J	MG/KG	04/24/98	1.0
SILVER	1.00	1.44 U	MG/KG	04/09/98	1.0
SODIUM	50.0	265 J	MG/KG	04/14/98	1.0
THALLIUM	1.00	7.26 J	MG/KG	04/09/98	1.0
VANADIUM	5.00	23.6	MG/KG	04/09/98	1.0
ZINC	1.00	102 J	MG/KG	04/14/98	1.0
WET CHEMISTRY					
PERCENT SOLIDS	1.0	69.4	%	04/08/98	1.0

J33

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 05/08/98
CAS Order # : 203790 - B-3 8-10'
Client : The Chazen Companies
GREER TOYOTA-INITIAL BORINGS-49799.24
Reported Units: MG/KG
Run # : 25630
Percent Solid : 84.4

	PRECISION			ACCURACY			
	ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
ALUMINUM	13200	13200	0	14800	415	D	75 - 125
ANTIMONY	7.11 U	7.11 U	NC	53.1	104	51 N	75 - 125
ARSENIC	14.1	13.5	4	21.6	8.32	89	75 - 125
BARIUM	58.1	58.5	1	496	415	106	75 - 125
BERYLLIUM	3.89	4.02	3	14.1	10.4	98	75 - 125
CADMIUM	1.52	1.50	1	11.7	10.4	98	75 - 125
CHROMIUM	14.2	14.2	0	55.8	41.5	100	75 - 125
COBALT	15.2	16.6	9	120	104	101	75 - 125
IRON	24900	26100	5	27100	206	D	75 - 125

0267

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 05/08/98
CAS Order # : 203790 - B-3 8-10'
Client : The Chazen Companies
GREER TOYOTA-INITIAL BORINGS-49799.24
Reported Units: MG/KG
Run # : 25630
Percent Solid : 84.4

	PRECISION			ACCURACY			
	ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
LEAD ±5 mg/kg	12.7	16.0	23	121	104	104	75 - 125
MAGNESIUM	4740	4550	4	5210	415	115	75 - 125
NICKEL	26.1	24.5	6	132	104	102	75 - 125
POTASSIUM	769	733	5	5230	4570	98	75 - 125
SILVER	1.18 U	1.18 U	NC	10.4	10.4	100	75 - 125
THALLIUM	7.83	6.75	15	402	415	95	75 - 125
VANADIUM	14.3	15.3	7	120	104	101	75 - 125

00268

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 05/08/98
CAS Order # : 203790 - B-3 8-10'
Client : The Chazen Companies
GREER TOYOTA-INITIAL BORINGS-49799.24
Reported Units: MG/KG
Run # : 25680
Percent Solid : 84.4

	PRECISION			ACCURACY			
	ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
CALCIUM	865	884	2	1290	419	102	75 - 125
COPPER	28.0	26.3	6	54.3	52.4	50 N	75 - 125
SODIUM	130	139	6	2540	4610	52 N	75 - 125
ZINC	76.8	78.0	2	134	105	54 N	75 - 125

49799

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 05/08/98
CAS Order # : 203790 - B-3 8-10'
Client : The Chazen Companies
GREER TOYOTA-INITIAL BORINGS-49799.24
Reported Units: MG/KG
Run # : 26034
Percent Solid : 84.4

	PRECISION			ACCURACY			
	ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
MANGANESE	813	840	3	821	107	8	75 - 125

00270

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 05/08/98
CAS Order # : 203790 - B-3 8-10'
Client : The Chazen Companies
GREER TOYOTA-INITIAL BORINGS-49799.24
Reported Units: MG/KG
Run # : 25789
Percent Solid : 84.4

	PRECISION			ACCURACY			
	ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
SELENIUM	0.598	0.592 U	NC	2.97	2.11	112	75 - 125

00271

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 05/08/98
CAS Order # : 203790 - B-3 8-10'
Client : The Chazen Companies
GREER TOYOTA-INITIAL BORINGS-49799.24
Reported Units: MG/KG
Run # : 25629
Percent Solid : 84.4

	PRECISION			ACCURACY			
	ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
MERCURY	0.178 U	0.178 U	NC	0.545	0.494	110	75 - 125

00272

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 05/08/98
CAS Order # : 203790 - B-3 8-10'
Client : The Chazen Companies
GREER TOYOTA-INITIAL BORINGS-49799.24
Reported Units: %
Run # : 25298

PRECISION

	ORIGINAL	DUPLICATE	RPD
PERCENT SOLIDS	84.4	84.1	0

00213

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: 9804000115
Client: The Chazen Companies
GREER TOYOTA-INITIAL BORINGS-49799.24

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
MERCURY	0.150 U	3.33	3.18	105	58 - 142	25629	MG/KG
ALUMINUM	10.0 U	5420	5380	101	59 - 141	25630	MG/KG
ANTIMONY	6.00 U	38.9	34.4	113	2.9 - 290	25630	MG/KG
ARSENIC	1.00 U	71.4	60.2	119	74 - 126	25630	MG/KG
BARIUM	2.00 U	95.1	83.4	114	77 - 124	25630	MG/KG
BERYLLIUM	0.500 U	49.0	45.2	108	78 - 121	25630	MG/KG
CADMIUM	0.500 U	60.4	52.4	115	77 - 123	25630	MG/KG
CHROMIUM	1.00 U	101	88.2	115	80 - 120	25630	MG/KG
COBALT	5.00 U	53.1	46.9	113	80 - 120	25630	MG/KG
IRON	10.0 U	10800	7760	139	37 - 162	25630	MG/KG

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: 9804000115
Client: The Chazen Companies
GREER TOYOTA-INITIAL BORINGS-49799.24

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
LEAD	5.00 U	89.2	75.1	119	76 - 124	25630	MG/KG
MAGNESIUM	50.0 U	1530	1360	112	76 - 124	25630	MG/KG
NICKEL	4.00 U	64.5	55.9	115	78 - 122	25630	MG/KG
POTASSIUM	200 U	1890	2000	94	65 - 135	25630	MG/KG
SILVER	1.00 U	85.9	70.6	122	74 - 126	25630	MG/KG
THALLIUM	1.00 U	59.2	44.1	134	57 - 143	25630	MG/KG
VANADIUM	5.00 U	62.7	52.5	119	68 - 132	25630	MG/KG
CALCIUM	50.0 U	1990	1680	119	75 - 125	25680	MG/KG
COPPER	2.00 U	127	108	118	82 - 118	25680	MG/KG
SODIUM	50.0 U	896	837	107	68 - 133	25680	MG/KG

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: 9804000115
Client: The Chazen Companies
GREER TOYOTA-INITIAL BORINGS-49799.24

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
ZINC	1.00 U	107	87.8	122	77 - 123	25680	MG/KG
SELENIUM	0.500 U	68.9	51.5	134	63 - 137	25789	MG/KG
MANGANESE	1.00 U	219	225	97	80 - 121	26034	MG/KG

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COLUMBIA ANALYTICAL Contract: CHAZEN

Lab Code: 10145 Case No.: SAS No.: SDG No.: B3

Initial Calibration Source: LABPREP

Continuing Calibration Source: LABPREP

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Aluminum	10000.0	9336.22	93.4	10000.0	9514.18	95.1	9403.31	94.0	P
Antimony	5000.0	4981.47	99.6	5000.0	5013.37	100.3	4932.90	98.7	P
Arsenic	1000.0	1005.68	100.6	1000.0	1013.17	101.3	993.23	99.3	P
Barium	10000.0	10099.45	101.0	10000.0	10098.54	101.0	10115.38	101.2	P
yllium	250.0	242.69	97.1	250.0	244.91	98.0	242.84	97.1	P
mium	500.0	509.38	101.9	500.0	514.50	102.9	504.57	100.9	P
Calcium	50000.0	51016.67	102.0	50000.0	50416.67	100.8	51056.67	102.1	P
Chromium	500.0	513.90	102.8	500.0	515.28	103.1	508.46	101.7	P
Cobalt	2500.0	2502.40	100.1	2500.0	2527.54	101.1	2482.08	99.3	P
Copper	1260.0	1273.33	101.1	1260.0	1277.67	101.4	1263.33	100.3	P
Iron	5000.0	4852.00	97.0	5000.0	4939.46	98.8	4936.44	98.7	P
Lead	500.0	504.45	100.9	500.0	505.65	101.1	503.96	100.8	P
Magnesium	25000.0	25367.09	101.5	25000.0	25466.17	101.9	25287.34	101.1	P
Manganese	750.0	762.50	101.7	750.0	779.00	103.9	756.17	100.8	P
Mercury	3.0	3.10	103.3	3.0	3.10	103.3	2.94	98.0	CV
Nickel	2000.0	2068.12	103.4	2000.0	2087.74	104.4	2082.79	104.1	P
Potassium	25000.0	23516.75	94.1	25000.0	23641.25	94.6	23811.52	95.2	P
Selenium	25.0	24.86	99.4	25.0	25.36	101.4	25.66	102.6	F
Silver	500.0	502.13	100.4	500.0	507.67	101.5	497.76	99.6	P
Sodium	50000.0	49756.67	99.5	50000.0	49676.67	99.4	49003.33	98.0	P
Thallium	1000.0	999.28	99.9	1000.0	1000.51	100.1	994.61	99.5	P
Vanadium	2520.0	2469.16	98.0	2520.0	2470.17	98.0	2472.99	98.1	P
Zinc	1000.0	1066.33	106.6	1000.0	1057.33	105.7	1078.00	107.8	P
Cyanide									

Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ENVIROFORMS/INORGANIC CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COLUMBIA ANALYTICAL Contract: CHAZEN

Lab Code: 10145 Case No.: SAS No.: SDG No.: 83

Initial Calibration Source: LABPREP

Continuing Calibration Source: LABPREP

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Aluminum				10000.0	9326.38	93.3	9309.89	93.1	P
Antimony				5000.0	4791.28	95.8	4723.93	94.5	P
Arsenic				1000.0	973.61	97.4	958.27	95.8	P
Barium				10000.0	10177.08	101.8	10178.74	101.8	P
[illegible]yllium				250.0	240.39	96.2	238.59	95.4	P
[illegible]mium				500.0	493.11	98.6	486.61	97.3	P
Calcium				50000.0	49760.00	99.5			P
Chromium				500.0	503.53	100.7	496.10	99.2	P
Cobalt				2500.0	2423.38	96.9	2386.93	95.5	P
Copper				1260.0	1263.33	100.3			P
Iron				5000.0	4870.09	97.4	4861.25	97.2	P
Lead				500.0	505.07	101.0	502.01	100.4	P
Magnesium				25000.0	25236.41	100.9	25241.90	101.0	P
Manganese				750.0	741.73	98.9	712.57	95.0	P
Mercury				3.0	2.88	96.0	2.98	99.3	CV
Nickel				2000.0	2086.69	104.3	2077.57	103.9	P
Potassium				25000.0	24168.63	96.7	24014.61	96.1	P
Selenium				25.0	26.58	106.3			F
Silver				500.0	483.52	96.7	475.82	95.2	P
Sodium				50000.0	49540.00	99.1			P
Thallium				1000.0	1002.52	100.3	997.92	99.8	P
Vanadium				2520.0	2487.31	98.7	2488.73	98.8	P
Zinc				1000.0	1017.17	101.7			P
Cyanide									

Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ENVIROFORMS/INORGANIC CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COLUMBIA ANALYTICAL Contract: CHAZEN

Lab Code: 10145 Case No.: SAS No.: SDG No.: B3

Initial Calibration Source: LABPREP

Continuing Calibration Source: LABPREP

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
yllium									
mium									
alcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese				750.0	690.73	92.1			P
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2B

CRDL STANDARD FOR AA AND ICP

Lab Name: COLUMBIA ANALYTICAL Contract: CHAZEN

Lab Code: 10145 Case No.: SAS No.: SDG No.: B3

AA CRDL Standard Source: PERKINELMER

ICP CRDL Standard Source: PERKINELMER

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Found	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony				120.0	119.19	99.3	114.45	95.4
Arsenic				20.0	20.26	101.3	22.23	111.2
Barium								
‘llium				10.0	9.72	97.2	9.45	94.5
mium				10.0	10.19	101.9	9.79	97.9
Calcium								
Chromium				20.0	20.71	103.6	20.34	101.7
Cobalt				100.0	101.41	101.4	96.87	96.9
Copper				50.0	54.17	108.3	54.00	108.0
Iron								
Lead				6.0	6.29	104.8	6.59	109.8
Magnesium								
Manganese				30.0	29.90	99.7	25.73	85.8
Mercury	0.4	0.44	110.0					
Nickel				80.0	84.81	106.0	83.06	103.8
Potassium								
Selenium	5.0	6.65	133.0					
Silver				20.0	20.08	100.4	20.34	101.7
Sodium								
Thallium				20.0	21.24	106.2	19.80	99.0
Vanadium				100.0	99.32	99.3	98.79	98.8
Zinc				40.0	47.30	118.2	47.77	119.4

3

BLANKS

Lab Name: COLUMBIA ANALYTICAL Contract: CHAZEN

Lab Code: 10145 Case No.: SAS No.: SDG No.: B3

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	100.0	U	100.0	U	100.0	U	100.0	U	20.000	U	P
Antimony	60.0	U	60.0	U	60.0	U	60.0	U	12.000	U	P
Arsenic	10.0	U	10.0	U	10.0	U	10.0	U	2.000	U	P
Barium	20.0	U	20.0	U	20.0	U	20.0	U	4.000	U	P
Beryllium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Cadmium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Calcium	500.0	U	500.0	U	500.0	U	500.0	U	100.000	U	P
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	2.000	U	P
Cobalt	50.0	U	50.0	U	50.0	U	50.0	U	10.000	U	P
Copper	20.0	U	20.0	U	20.0	U	20.0	U	4.000	U	P
Iron	100.0	U	100.0	U	100.0	U	100.0	U	20.000	U	P
Lead	50.0	U	50.0	U	50.0	U	50.0	U	10.000	U	P
Magnesium	500.0	U	500.0	U	500.0	U	500.0	U	100.000	U	P
Manganese	10.0	U	10.0	U	10.0	U	10.0	U	2.000	U	P
Mercury	0.3	U	0.3	U	0.3	U	0.3	U	0.150	U	CV
Nickel	40.0	U	40.0	U	40.0	U	40.0	U	8.000	U	P
Potassium	2000.0	U	2000.0	U	2000.0	U	2000.0	U	400.000	U	P
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	F
Silver	10.0	U	10.0	U	10.0	U	10.0	U	2.000	U	P
Sodium	500.0	U	500.0	U	500.0	U	500.0	U	100.000	U	P
Thallium	10.0	U	10.0	U	10.0	U	10.0	U	2.000	U	P
Vanadium	50.0	U	50.0	U	50.0	U	50.0	U	10.000	U	P
Zinc	10.0	U	10.0	U	10.0	U	10.0	U	2.000	U	P
Cyanide											

3

BLANKS

Lab Name: COLUMBIA ANALYTICAL Contract: CHAZEN

Lab Code: 10145 Case No.: SAS No.: SDG No.: B3

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			100.0	U							P
Antimony			60.0	U							P
Arsenic			10.0	U							P
Barium			20.0	U							P
Beryllium			5.0	U							P
Cadmium			5.0	U							P
Calcium											
Chromium			10.0	U							P
Cobalt			50.0	U							P
Copper											
Iron			100.0	U							P
Lead			50.0	U							P
Magnesium			500.0	U							P
Manganese			10.0	U	10.0	U					P
Mercury			0.3	U							CV
Nickel			40.0	U							P
Potassium			2000.0	U							P
Selenium											
Silver			10.0	U							P
Sodium											
Thallium			10.0	U							P
Vanadium			50.0	U							P
Zinc											
Cyanide											

ENVIROFORMS/INORGANIC CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: COLUMBIA ANALYTICAL Contract: CHAZEN

Lab Code: 10145 Case No.: SAS No.: SDG No.: B3

ICP ID Number: OPTIMA3000XL ICS Source: VHGLABS

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	499000	499000	512422	498118.7	99.8	508648	494707.3	99.1
Antimony			4	0.1		5	3.7	
Arsenic			244	237.8		244	230.7	
Barium	0	500	17	529.2	105.8	16	532.9	106.6
Beryllium	0	500	26	537.8	107.6	26	531.4	106.3
Cadmium	0	1000	11	943.8	94.4	10	907.4	90.7
Calcium	495000	495000	477500	482666.7	97.5	471200	480000.0	97.0
Chromium	0	500	19	513.0	102.6	19	499.2	99.8
Cobalt	0	500	0	480.4	96.1	0	459.7	91.9
Copper	0	500	13	495.9	99.2	14	497.2	99.4
Iron	200000	200000	182562	179754.9	89.9	182483	179379.2	89.7
Lead	0	1000	-68	931.6	93.2	-67	927.4	92.7
Magnesium	498000	498000	530879	515916.4	103.6	526658	511734.0	102.8
Manganese	0	500	1	489.3	97.9	1	399.2	79.8
Mercury								
Nickel	0	1000	7	963.1	96.3	7	971.6	97.2
Potassium			5	3.4		5	3.5	
Selenium								
Silver	0	1000	4	1068.8	106.9	4	1020.6	102.1
Sodium			-25	66.0		13	93.7	
Thallium			146	144.8		142	146.2	
Vanadium	0	500	-13	481.6	96.3	-12	487.0	97.4
Zinc	0	1000	-54	871.4	87.1	-51	856.8	85.7

9

ICP SERIAL DILUTIONS

SAMPLE NO.

B3___L

Lab Name: COLUMBIA ANALYTICAL Contract: CHAZEN

Lab Code: 10145 Case No.: SAS No.: SDG No.: B3

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	63133.71		60364.10		4.4		P
Antimony	60.00	U	300.00	U			P
Arsenic	67.76		66.22		2.3		P
Barium	279.47		272.21		2.6		P
Beryllium	18.71		25.00	U	100.0		P
Cadmium	7.31		25.00	U	100.0		P
Calcium	3831.33		3813.67		0.5		P
Chromium	68.64		66.73		2.8		P
Cobalt	73.18		250.00	U	100.0		P
Copper	124.13		127.67		2.9		P
Iron	119894.10		120994.55		0.9		P
Lead	60.90		250.00	U	100.0		P
Magnesium	22827.01		22183.63		2.8		P
Manganese	3776.33		3515.00		6.9		P
Mercury							
Nickel	125.39		200.00	U	100.0		P
Potassium	3701.46		10000.00	U	100.0		P
Selenium							
Silver	10.00	U	50.00	U			P
Sodium	578.33		2500.00	U	100.0		P
Thallium	37.68		50.00	U	100.0		P
Vanadium	68.98		250.00	U	100.0		P
Zinc	340.47		343.33		0.8		P

DATAVAL, INC.
Environmental Data Validation

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