FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

WL00001TP

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix: (soil/water) SOIL Lab Sample ID: 912839

Sample wt/vol: 1.1 (g/mL) G Lab File ID: _____

% Moisture: 0 decanted: (Y/N) N Date Received: 10/03/98

Extraction: (SepF/Cont/Sonc) OTHER Date Extracted:10/05/98

Concentrated Extract Volume: 5000(uL) Date Analyzed: 10/13/98

Injection Volume: 2.0(uL) Dilut[illegible] Factor: 1.0

GPC Cleanup: (Y/N) N pH: [illegible]anup: (Y/N) N

CAS NO	[illegible]TS: [illegible]G/KG	Q
1	930	U
1	1200	U
1	930	U
1	640	U
1	640	U
1	11000	P
1	930	U

WS00001
Aroclor 1254 61 µg/kg
→ soil from roll-off (excavated as part of line break)

FORM I PEST

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PBLKQJ

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix: (soil/water) SOIL Lab Sample ID: 913029

Sample wt/vol: 1.0 (g/mL) G Lab File ID: _____

% Moisture: 0 decanted: (Y/N) N Date Received: _____

Extraction: (SepF/Cont/Sonc) OTHER Date Extracted:10/05/98

Concentrated Extract Volume: 5000(uL) Date Analyzed: 10/13/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2------	Aroclor-1016	980	U
11104-28-2------	Aroclor-1221	1300	U
11141-16-5------	Aroclor-1232	980	U
53469-21-9------	Aroclor-1242	680	U
12672-29-6------	Aroclor-1248	680	U
11097-69-1------	Aroclor-1254	680	U
11096-82-5------	Aroclor-1260	980	U

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKQJ

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Lab Sample ID: 913029 Lab File ID: _____

Matrix (soil/water) SOIL Extraction:(SepF/Cont/Sonc) OTHER

Sulfur Cleanup (Y/N) N Date Extracted: 10/05/98

Date Analyzed (1): 10/13/98 Date Analyzed (2): 10/13/98

Time Analyzed (1): 0750 Time Analyzed (2): 0750

Instrument ID (1): HP17 Instrument ID (2): HP16

GC Column (1): DB-608 ID: 0.53(mm) GC Column (2): RTX-1701 ID: 0.53(m

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PLCSQJ	913030	10/13/98	10/13/98
02	WL00001TPMS	912846	10/13/98	10/13/98
03	WL00001TPMSD	912847	10/13/98	10/13/98
04	WL00001TP	912839	10/13/98	10/13/98
05				
06				
07				
08				
09				
10				
11				
12				
13				
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17				
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19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

FORM IV PEST

FORM 2
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

GC Column(1): DB-608 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (m

	CLIENT SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKQJ	124	112	108	116			0
02	PLCSQJ	122	106	111	121			0
03	WL00001TPMS	91	68	68	43			0
04	WL00001TPMSD	94	86	63	39			0
05	WL00001TP	89	99	58	45			0
06								
07								
08								
09								
10								
11								
12								
13								
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29								
30								

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (30-150)
S2 (DCB) = Decachlorobiphenyl (30-150)

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

FORM 3
SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix Spike - Sample No.: WL00001TP

COMPOUND	SPIKE ADDED (ug/Kg	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Aroclor-1254	9300	11000	19000	86	50-150

COMPOUND	SPIKE ADDED (ug/Kg	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Aroclor-1254	8500	19000	94	9	20	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

FORM 3
SOIL PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

COMPOUND	SPIKE ADDED (ug/Kg	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Aroclor-1254	10000	10000	100	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS: _____

COMPUCHEM
a division of Liberty Analytical Corp.

98-251 & 2
Dayton
pest organics
Bldg 50

15/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

Subject: Report of Data - Account Number# 501112 Order# 33864

ATTN: MR. KEN VOGEL

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers 3 sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services please contact your representative at 1-800-833-5097.

Sincerely,

Diane Ellmore

CompuChem Environmental
a division of Liberty Analytical

Attachment

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel 919-379-4100 ■ Fax 919-379-4050

COMPUCHEM
a division of Liberty Analytical Corp.

15/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

ACCOUNT #: 501112

CC#	SAMPLE-ID	RECEIPT DATE
912811	T093098	10/03/98
913008	WL00002	10/05/98
913017	WL00001BP	10/05/98

TOTAL NUMBER OF SAMPLES = 3

501 Madison Avenue ■ Cary, NC 27513 ■ Tel. 919-379-4100 ■ Fax 919-379-4050

CompuChem
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, North Carolina 27513

SDG NARRATIVE

CASE: 33864
SDG: 25104

SAMPLE IDENTIFICATIONS: WL00001BP, WL00002

The two (2) liquid samples WL00001 and WL00002 were received intact, properly refrigerated, with proper chain-of-custody (COC) documentation on October 3, 1998. The sample WL00001 was biphasic. The bottom (water) layer of the sample was given the sample identification WL00001BP and analyzed within this SDG. The top layer analysis (WL00001TP) data is provided in SDG 25101. The samples were prepared and analyzed following SW846 Method 8082 protocol for the PCB fractions.

PCBs

Extraction and analysis holding time requirements were met for both of these samples. The PCB target analyte Aroclor 1254 was confirmed by dual column analysis at a concentration above the reporting limit in both samples.

In the analyses of these samples, the retention times for three of the five peaks used to quantitate Aroclor 1254 fell outside their windows on HP16 but were within the windows on HP17. The Aroclor 1254 pattern is unmistakable on both columns. The retention time of the surrogate decachlorobiphenyl (DCB) also fell outside the window on HP16. The retention time shift was noted in both samples and the duplicate matrix spikes, however, the Laboratory Control Sample (LCS) retention times were unaffected. The samples were reanalyzed with the same results. Therefore we have reported the data from HP17, using the HP16 data as confirmation only.

All of the surrogates met recovery criteria with a few exceptions. The recovery of DCB fell below the quality control criteria limit on the DB-608 column in the analyses of WL00001BP, WL00002, and the duplicate matrix spikes due to matrix interference. All of the surrogates met retention time criteria with the exception of the DCB retention times on HP16 described above.

The associated method blank met all quality control criteria. No PCBs were detected in the method blank.

WL00001BP was used as the original to prepare the duplicate matrix spikes. The associated duplicate matrix spikes failed all advisory accuracy and precision criteria due to the matrix of the original. The associated Laboratory Control Sample (LCS) met all quality control criteria.

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

Stephanie W. Winfield 10-14-98
Stephanie W. Winfield
Technical Reviewer
October 14, 1998

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL) (or Reporting Limit) will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicates the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

C : **This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)**

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

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

S : This flag indicates that an analyte was detected by a single column GC analysis but the result was below the Reporting Limit. This flag is only used when clients request a second (confirmation) column analysis after detecting an analyte above the Reporting Limit in the initial, single column analysis. This flag alerts the data user that only an analyte was detected below the Reporting Limit and a second (confirmation) analysis was not performed.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

CHRYSLER CORPORATION

Chain-of-Custody

01502 A

CompuChem
501 Madison Avenue
Cary, NC 27513
Phone Number: 1-800-833-5097
Fax Number: (919) 379-4050

Project Name: Dayton Thermal Products
Site Location: 1600 Webster St. Dayton OH 45401
Site Code: SC001
RFA Number: YGOP980025 1 and 252
Chrysler PM: Gary Stanczak

Consultant: Leggette, Brashears & Graham, Inc
Address: 1210 West County Road E Suite 700
Saint Paul MN 55112
Consultant PM: Ken Vogel
Phone: 651 490 1405 Fax: 651 490-1006

Turn-around Time Request:
24 calendar hrs
48 calendar hrs
72 hours
28 days
10 days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Matrix Codes
S - Soil SW - Surface Water
GW - Groundwater A - Air
Sed. - Sediment
O - Other (specify) Sump liquid, Rinsewater

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	8260 VOCs	8270 A SVOCs	RCRA Metals G/TCCO	TCLP Metals G/TCCO	8082 PCBs	9020A TOH Aqueous	9020A TOH Solid	Ch.7 Corrosivity	Ch.7 Ignitability	Lab Use Only: Volatiles pH < 2	Metals pH < 2	Cyanide pH > 12	Other	Remarks
WS00001	10-2-98	11:00	C	S	6	X	X	X	X	X		X	X	X					Solid Waste
WL00001	↓	12:00	G	O	13	X	X	X		X	X		X	X					Sump Liquid
WL00002	↓	12:50	G	O	13	X	X	X		X	X		X	X					Rinse water (*) Recvd 2 vOAs broken & 1 AL(4 broken up. Necessary. MJT 10/5
T093098			-	O		X													Trip blank
See C-O-C 1503 for additional analyses.																			

Fed Ex 8061998 3707 opened @ 11:51

Sampler(s)
Cindy Vanderhorst LJB

Cooler ID # 48 + 24

Is RFA sampling complete? Yes No

Bottles Reliquished under Airbill No.

Samples Relinquished under Airbill No. 8061 7983 692

Temperature (corrected) 3.9 C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Cindy Vanderhorst	10-2-98	1630				Yes No
						Yes No
			Received for Laboratory by: Marcenia J. Smith	10-3-98	11:45	Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Spoke w/ Ken Vogel on 10/5/98 regarding sample ID WL00001 Sample is biphasic. Sample will be split by layer, top phase will be labeled WL00001TP, bottom phase will be labeled WL00001BP. Also told Ken about broken bottle (no VOCs to analyze) 10/5/98

[illegible] placed on ice [illegible] because of breakage

Compuchem Receiving Log

1/5/98 See note on COC # 502A

nt: Chrysler (LBG)
er # 338604
ect: Dayton Thermal
ite # 98-7078
ount # 501112

Received on: 10.3.98 & 10/5 # of COC's 2
Delivered by: Fed Ex
Freight # 806179983707, 806179983692
Subcontract Y / (N)
TAT: Verbal _____ Hardcopy 10 day

PPS / (RFA) # 251 & 252 Page 1 of 1
Lab Instructions: TCL, VOH, SV, PCB / TCLP Metals / Corr / Ign / React / TOX

SDG	REQ	SAMPLE ID	CCN	AMOUNT / CONTAINER	PARAMETER	ANALYSIS CODE	LINE ITEM	SAMPLE DATE	MX	pH
25104	2	T093098	912811	2·60ml	VOA	1356	1	10.2.98	NA	NA
25102	3	WS00001	912814	2·4oz; 3·8oz	Corr. Ign. React. V, SV, RCRA Metal, PCB, TOX	1317, 1254, 1316, 1356, 797, 2020, 748, 4003	21, 26, 28, 30, 3, 7, 11, 13, 22		SO	
25103	4	↓	912834	1·8oz	TCLP metals	1316, 1143	13, 14			
25101	5	WL00001 ~~BTTP~~	912839	2·60ml; 10AL; 1·500ml PL	Corr. Ign, React. V, SV, RCRA Met. PCB, TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002	24, 26, 28, 1, 5, 9, 16, 20,		XX	NA
25104	6	WL00002	913008	6·AL; 1·500ml PL	Corr / Ign / React. SV/RCRA/PCB/TOX/	1317, 1254, 1316, 797, 2019, 748, 4002,	24, 26, 28, 5, 9, 16, 20		NA	NA
↓	7	WL00003 ~~TR 18~~	913017	2-60ml · 1-500ml PL · 9AL	Corr / Ign / React V/SV/RCRA/PCB/TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002,	24, 26, 28, 1, 5, 7, 16, 20,		NA	NA/<2

D Ellmore 10/5/98

Logged In By: Marlene A. Smith / Diane Ellmore
Cyanide samples checked for sulfide and chlorine Y / (NA)

Order Entered By: Marlene A. Smith / Diane Ellmore
Received in good condition Y / (N) ID WL00003 – 4 (AL) had broken

COMPUCHEM
a division of Liberty Analytical
501 Madison Avenue
Cary, NC 27513

October 5, 1998

To: Kenny
Mark
Ricky

From: Diane

Re: Case 33864 SDG 25101 & 25104

Sample WL00001 is biphasic. We received 2- 60 ml vials for this sample. The top phase (TP) is CCN 912839 (SDG 25101). This sample matrix is 'XX' (oil). The bottom phase (BP) is CCN 913017 (SDG 25104). This sample matrix is water. Both CCN's appear on the bottles. Please take care in analyzing the correct phase with the correct CCN.

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

WL00001BP

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913017

Sample wt/vol: 500.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 10/03/98

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/05/98

Concentrated Extract Volume: 5000(uL) Date Analyzed: 10/06/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	12	P
11096-82-5	Aroclor-1260	1.0	U

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

WL00002

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913008

Sample wt/vol: 1030 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 10/03/98

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/05/98

Concentrated Extract Volume: 10000(uL) Date Analyzed: 10/06/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.97	U
11104-28-2	Aroclor-1221	1.9	U
11141-16-5	Aroclor-1232	0.97	U
53469-21-9	Aroclor-1242	0.97	U
12672-29-6	Aroclor-1248	0.97	U
11097-69-1	Aroclor-1254	27	P
11096-82-5	Aroclor-1260	0.97	U

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PLCSPY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 912959

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/05/98

Concentrated Extract Volume: 10000(uL) Date Analyzed: 10/06/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2------	Aroclor-1016	1.0	U
11104-28-2------	Aroclor-1221	2.0	U
11141-16-5------	Aroclor-1232	1.0	U
53469-21-9------	Aroclor-1242	1.0	U
12672-29-6------	Aroclor-1248	1.0	U
11097-69-1------	Aroclor-1254	11	
11096-82-5------	Aroclor-1260	1.0	U

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PBLKPY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 912958

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/05/98

Concentrated Extract Volume: 10000(uL) Date Analyzed: 10/05/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2------	Aroclor-1016	1.0	U
11104-28-2------	Aroclor-1221	2.0	U
11141-16-5------	Aroclor-1232	1.0	U
53469-21-9------	Aroclor-1242	1.0	U
12672-29-6------	Aroclor-1248	1.0	U
11097-69-1------	Aroclor-1254	1.0	U
11096-82-5------	Aroclor-1260	1.0	U

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKPY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Lab Sample ID: 912958 Lab File ID: _____

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) N Date Extracted: 10/05/98

Date Analyzed (1): 10/05/98 Date Analyzed (2): 10/05/98

Time Analyzed (1): 2355 Time Analyzed (2): 2355

Instrument ID (1): HP17 Instrument ID (2): VARIAN16

GC Column (1): DB-608 ID: 0.53(mm) GC Column (2): RTX-1701 ID: 0.53(n

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PLCSPY	912959	10/06/98	10/06/98
02	WL00001BPMS	913015	10/06/98	10/06/98
03	WL00001BPMSD	913016	10/06/98	10/06/98
04	WL00002	913008	10/06/98	10/06/98
05	WL00001BP	913017	10/06/98	10/06/98
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22				
23				
24				
25				
26				

COMMENTS: _____

FORM IV PEST

FORM 2
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

GC Column(1): DB-608 ID: 0.53 (mm) GC Column(2): RTX-1701 ID: 0.53 (m

	CLIENT SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKPY	94	96	120	110			0
02	PLCSPY	113	114	146	131			0
03	WL00001BPMS	71	58	29*	52			1
04	WL00001BPMSD	50	40	25*	45			1
05	WL00002	38	74	22*	41			1
06	WL00001BP	59	61	24*	72			1
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
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27								
28								
29								
30								

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (30-150)
S2 (DCB) = Decachlorobiphenyl (30-150)

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

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

WL00001BPMS

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913015

Sample wt/vol: 500.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 10/03/98

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/05/98

Concentrated Extract Volume: 5000(uL) Date Analyzed: 10/06/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2------	Aroclor-1016	1.0	U
11104-28-2------	Aroclor-1221	2.0	U
11141-16-5------	Aroclor-1232	1.0	U
53469-21-9------	Aroclor-1242	1.0	U
12672-29-6------	Aroclor-1248	1.0	U
11097-69-1------	Aroclor-1254	16	P
11096-82-5------	Aroclor-1260	1.0	U

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

WL00001BPMSD

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913016

Sample wt/vol: 500.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 10/03/98

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/05/98

Concentrated Extract Volume: 5000(uL) Date Analyzed: 10/06/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	13	P
11096-82-5	Aroclor-1260	1.0	U

FORM 3
WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix Spike - Sample No.: WL00001BP

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMIT REC.
Aroclor-1254	10	12	16	40*	50-15

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1254	10	13	10*	120*	20	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 1 outside limits
Spike Recovery: 2 out of 2 outside limits

COMMENTS: _____

FORM 3
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Aroclor-1254	10	11	110	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS: _____

a division of Liberty Analytical Corp.

98-35142
Dayton Bldg 50
VOCs
Oil

19/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

Subject: Report of Data - Account Number# 501112 Order# 33864

ATTN: MR. KEN VOGEL

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers 1 sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services please contact your representative at 1-800-833-5097.

Sincerely,

Diane Ellmore

CompuChem Environmental
a division of Liberty Analytical

Attachment

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel: 919-379-4100 ■ Fax: 919-379-4050

a division of Liberty Analytical Corp.

19/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

ACCOUNT #: 501112

CC#	SAMPLE-ID	RECEIPT DATE
912839	WL00001TP	10/03/98

TOTAL NUMBER OF SAMPLES = 1

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel: 919-379-4100 ■ Fax: 919-379-4050

CompuChem
a Division of Liberty Analytical
501 N. Madison Avenue
Cary, NC 27513

SDG NARRATIVE
CASE:33864
SDG:25101
CONTRACT:501112

SAMPLE IDENTIFICATIONS: WL00001TP

The one(1) oil sample listed above was received intact, properly refrigerated, with proper chain of custody(COC) documentation on October 03, 1998. The sample was prepared and analyzed following SW846 method 8260.

VOLATILES:

Analysis holding time requirements were met for this sample. The target analytes trichloroethene and tetrachloroethene were at levels that required this sample to be reprepared and analyzed as a medium level sample and further diluted 500:1 to bring these analytes into the range of the initial calibration.

No Tentatively Identified Compound (TIC) data is provided as requested by the client.

All of the surrogates failed low for recovery criteria in the sample and duplicate matrix spikes due to the fact that the surrogates were diluted out. All of the internal standards met response and retention time criteria in the analyses of these samples.

The associated method blank met all quality control criteria and did not contain any target analytes above the reporting limits.

The associated Laboratory Control Sample(LCS) met all QC acceptance limits.

The duplicate matrix spikes generated from this original did not have any reliable recovery data due to the 500:1 dilution which essentaily diluted out all spike compounds.

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

Roy M. Sutton
Development Chemist
October 19, 1998

GC and GC/MS Column and Trap Specifications Table

COLUMNS

Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
GC Laboratory				
Restek	RTX-1701	0.53	0.5	30
J & W	DB-608	0.53	0.83	30
Restek	CLPesticides	0.53	0.5	30
Restek	CLPesticides II	0.53	0.42	30
GC/MS Volatiles Laboratory				
J & W	DB-624	0.53	3.0	30/75
Supelco	SPB-624	0.53	3.0	75
GC/MS Semivolatiles Laboratory				
J & W	DB-5	0.32	1.0	30
Hewlett Packard	HP5-MS	0.25	0.25	30

TRAP

GC/MS Volatiles Laboratory	
	* 15 cm of 2,6-diphenylene oxide polymer (Tenax) * 1 cm of methyl silicone packing (OV-1 coating) * 8 cm of silica gel * 0.5 cm of glass wool at each end

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These adjustments are performed by the data reviewer, GC/MS operator, or GC chemist. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration of each compound to demonstrate the accuracy of that process. Adjustments are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count as possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that the data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

With the introduction of the current EPA CLP SOW (Document Number OLM03.0, plus revisions) additional explanations for manual editing/integration are required. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC data packages.

Robert E. Meierer
Vice President

Revision 4 (10/8/97)

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL) (or Reporting Limit) will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicates the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

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

S : This flag indicates that an analyte was detected by a single column GC analysis but the result was below the Reporting Limit. This flag is only used when clients request a second (confirmation) column analysis after detecting an analyte above the Reporting Limit in the initial, single column analysis. This flag alerts the data user that only an analyte was detected below the Reporting Limit and a second (confirmation) analysis was not performed.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

CHRYSLER CORPORATION

Chain-of-Custody

ipuChem Madison Avenue , NC 27513 ne Number: 1-800-833-5097 Number: (919) 379-4050	Project Name: Dayton Thermal Products Site Location: 1600 Webster St. Dayton OH 45401 Site Code: SC001 RFA Number: YGQP980251 and 252 Chrysler PM: Gary Stanczak	Consultant: Leggette, Brashears & Graham, Inc Address: 1210 West County Road E Suite 700 Saint Paul MN 55112 Consultant PM: Ken Vogel Phone: 651 490 1405 Fax: 651 490-1006

m-around Time Request:
~~alendar hrs~~
~~alendar hrs~~
~~days~~
~~days~~
10 days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Matrix Codes
S - Soil SW - Surface Water
GW - Groundwater A - Air
Sed. - Sediment
O - Other (specify) Sump liquid, Rinsewater

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	8260 VOCs	8270 A SVOCs	RCRA Metals 6/7000	TCLP Metals 6/7000	8080 PCBs	9030A TOH Aqueous	9020A TOH Solid	Ch. 7 Corrosivity	Ch. 7 Ignitability	Lab Use Only: Volatiles pH < 2	Metals pH < 2	Cyanide pH > 12	Other ____	Remarks
WS00001	10-2-98	11:00	C	S	6	X	X	X	X	X		X	X	X					Solid Waste
WL00001	↓	12:00	G	O	13	X	X	X		X	X		X	X					Sump Liquid
WL00002	↓	12:50	G	O	13	X	X	X		X	X		X	X					Rinse water (*) Recvd 8 VOAs broken & PAL broken up receipt. MFE 10/
T093098			-	O		X													Trip blank
See C-O-C 1503 for additional analyses.																			

Fed Ex 806 7998 3701 Opened @ 11:51 Temperature (corrected) 3.9 C

Sampler(s)
Cindy Vandehest LJB

Cooler ID # 48 + 74

Is RFA sampling complete? (Yes) No

Bottles Relinquished under Airbill No.	Date:	Time:	Samples Relinquished under Airbill No. 806 7998 3692	Date:	Time:	Custody Seal Intact?
Relinquished by: Cindy Vandehest	10-2-98	1630	Received by:			Yes No
Relinquished by:			Received by:			Yes No
Relinquished by:			Received for Laboratory by: Marcenia J. Smith	10-3-98	11:45	(Yes) No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Spoke w/ Ken Vogel on 10/5/98 regarding sample ID WL00001 Sample is biphasic. Sample will be split by layer, top phase will be labeled WL00001TP, bottom phase will be labeled WL00001BP. Also told Ken about broken bottles (no VOCs left unsale) 10/5/98

... 2 placed on hold @ placed in sample locker because of breakage

CHRYSLER CORPORATION

Chain-of-Custody

7

Chem idison Avenue NC 27513 Number: 1-800-833-5097 umber: (919) 379-4050	Project Name: Dayton Thermal Products Site Location: 1600 Webster st Dayton OH 45401 Site Code: SC001 RFA Number: YGQP9800251 and 252 Chrysler PM: Gary Stankzuk	Consultant: Leggette, Brashears & Graham, Inc. Address: 1210 West County Road E St. Paul MN 55112 Consultant PM: Ken Vogel Phone: 651 490-1405 Fax: 651 490-1006

Turnaround Time Request:
Calendar hrs.
Calendar hrs.
Business days
10 Days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify) Sump Liquid, Rinse water

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	Ch. 7 Reactivity Aqueous	Ch. 7 Reactivity Solid								Lab Use Only: Volatiles pH <2	Metals pH < 2	Cyanide pH > 12	Other ____	Remarks
1S00001	10-2-98	11:00	C	S			X												Solid waste
1L00001	↓	12:00	G	O		X													Sump Liquid
1L00002		12:50	G	O		X													Rinse Water
See C-O-C 1502 for additional analyses.																			

and 8061 7783707
Picked @ 11:57

Sampler(s)	Bottles Reliquished under Airbill No.			Samples Relinquished under Airbill No. 8061 7983 692			Temperature (corrected) 3.9 C
Cindy Vanderhorst LJB	Relinquished by: Cindy Vanderhorst	Date: 10-2-98	Time: 16:30	Received by:	Date:	Time:	Custody Seal Intact? Yes No
Cooler ID # 48 + 74	Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact? Yes No
Is RFA sampling complete? Yes No	Relinquished by:	Date:	Time:	Received for Laboratory by: Maureen Smith	Date: 10/3/98	Time: 11:45	Custody Seal Intact? Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow : Retained by laboratory Pink: Retained by sampler

Sample 1L 00002 placed on hold & placed in walk in cooler because of breakage

VOLATILE ORGANICS ANALYSIS DATA SHEET

WL00001TP

Project: RFA251 | Date Sampled: 10/02/98

Lab Code: COMPU | Case No.: 33864 | SAS No.: | SDG No.: 25101

Matrix: (soil/water) SOIL | Lab Sample ID: 912839

Sample wt/vol: 4.0 (g/mL) G | Lab File ID: C9R12839B51.D

Level: (low/med) MED | Date Received: 10/03/98

% Moisture: not dec. 0 | Date Analyzed: 10/17/98

GC Column: DB624 ID: 0.53 (mm) | Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) | Soil Aliquot Volume: 0.20 (uL)

CONCENTRATION UNITS: UG/KG

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	600000		U
75-01-4	Vinyl Chloride	600000		U
75-00-3	Chloroethane	600000		U
75-09-2	Methylene Chloride	600000	260000	JB
75-35-4	1,1-Dichloroethene	600000		U
75-34-3	1,1-Dichloroethane	600000		U
67-66-3	Chloroform	600000		U
107-06-2	1,2-Dichloroethane	600000		U
71-55-6	1,1,1-Trichloroethane	600000		U
56-23-5	Carbon Tetrachloride	600000		U
75-27-4	Bromodichloromethane	600000		U
10061-01-5	cis-1,3-Dichloropropene	600000		U
79-01-6	Trichloroethene	600000	4100000	
124-48-1	Dibromochloromethane	600000		U
79-00-5	1,1,2-Trichloroethane	600000		U
71-43-2	Benzene	600000		U
10061-02-6	trans-1,3-Dichloropropene	600000		U
75-25-2	Bromoform	600000		U
127-18-4	Tetrachloroethene	600000	9700000	
79-34-5	1,1,2,2-Tetrachloroethane	600000		U
108-88-3	Toluene	600000		U
108-90-7	Chlorobenzene	600000		U
100-41-4	Ethylbenzene	600000		U
100-42-5	Styrene	600000		U
78-87-5	1,2-Dichloropropane	600000		U
74-87-3	Chloromethane	600000		U
67-64-1	Acetone	600000	100000	JB
108-10-1	4-Methyl-2-pentanone	600000		U
78-93-3	2-butanone	600000		U
540-59-0	1,2-Dichloroethene (total)	600000		U
591-78-6	2-Hexanone	600000		U
1330-20-7	Xylene (total)	600000	81000	JB
75-15-0	Carbon Disulfide	600000		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001TPMS

Project: RFA251 Date Sampled: 10/02/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix: (soil/water) SOIL Lab Sample ID: 912812

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C4R12812B51.D

Level: (low/med) MED Date Received: 10/03/98

% Moisture: not dec. 0 Date Analyzed: 10/17/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 0.20 (uL)

CONCENTRATION UNITS: UG/KG

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	600000		U
75-01-4	Vinyl Chloride	600000		U
75-00-3	Chloroethane	600000		U
75-09-2	Methylene Chloride	600000	260000	JB
75-35-4	1,1-Dichloroethene	600000		U
75-34-3	1,1-Dichloroethane	600000		U
67-66-3	Chloroform	600000		U
107-06-2	1,2-Dichloroethane	600000		U
71-55-6	1,1,1-Trichloroethane	600000		U
56-23-5	Carbon Tetrachloride	600000		U
75-27-4	Bromodichloromethane	600000		U
10061-01-5	cis-1,3-Dichloropropene	600000		U
79-01-6	Trichloroethene	600000	3900000	
124-48-1	Dibromochloromethane	600000		U
79-00-5	1,1,2-Trichloroethane	600000		U
71-43-2	Benzene	600000		U
10061-02-6	trans-1,3-Dichloropropene	600000		U
75-25-2	Bromoform	600000		U
127-18-4	Tetrachloroethene	600000	9500000	
79-34-5	1,1,2,2-Tetrachloroethane	600000		U
108-88-3	Toluene	600000		U
108-90-7	Chlorobenzene	600000		U
100-41-4	Ethylbenzene	600000		U
100-42-5	Styrene	600000		U
78-87-5	1,2-Dichloropropane	600000		U
74-87-3	Chloromethane	600000		U
67-64-1	Acetone	600000	1300000	B
108-10-1	4-Methyl-2-pentanone	600000		U
78-93-3	2-butanone	600000		U
540-59-0	1,2-Dichloroethene (total)	600000		U
1330-20-7	Xylene (total)	600000		U
591-78-6	2-Hexanone	600000		U
75-15-0	Carbon Disulfide	600000		U

FORM I VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001TPMSD

Project: RFA251 Date Sampled: 10/02/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix: (soil/water) SOIL Lab Sample ID: 912813

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C4R12813B51.D

Level: (low/med) MED Date Received: 10/03/98

% Moisture: not dec. 0 Date Analyzed: 10/17/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 0.20 (uL)

CONCENTRATION UNITS: UG/KG

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	600000		U
75-01-4	Vinyl Chloride	600000		U
75-00-3	Chloroethane	600000		U
75-09-2	Methylene Chloride	600000	260000	JB
75-35-4	1,1-Dichloroethene	600000		U
75-34-3	1,1-Dichloroethane	600000		U
67-66-3	Chloroform	600000		U
107-06-2	1,2-Dichloroethane	600000		U
71-55-6	1,1,1-Trichloroethane	600000		U
56-23-5	Carbon Tetrachloride	600000		U
75-27-4	Bromodichloromethane	600000		U
10061-01-5	cis-1,3-Dichloropropene	600000		U
79-01-6	Trichloroethene	600000	4200000	
124-48-1	Dibromochloromethane	600000		U
79-00-5	1,1,2-Trichloroethane	600000		U
71-43-2	Benzene	600000		U
10061-02-6	trans-1,3-Dichloropropene	600000		U
75-25-2	Bromoform	600000		U
127-18-4	Tetrachloroethene	600000	9800000	
79-34-5	1,1,2,2-Tetrachloroethane	600000		U
108-88-3	Toluene	600000		U
108-90-7	Chlorobenzene	600000		U
100-41-4	Ethylbenzene	600000		U
100-42-5	Styrene	600000		U
78-87-5	1,2-Dichloropropane	600000		U
74-87-3	Chloromethane	600000		U
67-64-1	Acetone	600000	170000	JB
108-10-1	4-Methyl-2-pentanone	600000		U
78-93-3	2-butanone	600000		U
540-59-0	1,2-Dichloroethene (total)	600000	98000	J
1330-20-7	Xylene (total)	600000		U
591-78-6	2-Hexanone	600000		U
75-15-0	Carbon Disulfide	600000		U

FORM I VOA

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLKQ4

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Lab File ID: CR014174B51.D Lab Sample ID: 914174

Date Analyzed: 10/16/98 Time Analyzed: 2331

GC Column:DB624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: F50051

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	WL00001TP	912839	C9R12839B51.D	0002
02	VLCS40	914176	C3R14176B51.D	0040
03	WL00001TPMS	912812	C4R12812B51.D	0118
04	WL00001TPMSD	912813	C4R12813B51.D	0157
05				
06				
07				
08				
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COMMENTS:

FORM IV VOA

11

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLKQ4

Project: RFA251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix: (soil/water) SOIL Lab Sample ID: 914174

Sample wt/vol: 4.0 (g/mL) G Lab File ID: CR014174B51.D

Level: (low/med) MED Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 10/16/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS: UG/KG

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	1200		U
75-01-4	Vinyl Chloride	1200		U
75-00-3	Chloroethane	1200		U
75-09-2	Methylene Chloride	1200	730	J
75-35-4	1,1-Dichloroethene	1200		U
75-34-3	1,1-Dichloroethane	1200		U
67-66-3	Chloroform	1200		U
107-06-2	1,2-Dichloroethane	1200		U
71-55-6	1,1,1-Trichloroethane	1200		U
56-23-5	Carbon Tetrachloride	1200		U
75-27-4	Bromodichloromethane	1200		U
10061-01-5	cis-1,3-Dichloropropene	1200		U
79-01-6	Trichloroethene	1200		U
124-48-1	Dibromochloromethane	1200		U
79-00-5	1,1,2-Trichloroethane	1200		U
71-43-2	Benzene	1200	340	J
10061-02-6	trans-1,3-Dichloropropene	1200		U
75-25-2	Bromoform	1200		U
127-18-4	Tetrachloroethene	1200		U
79-34-5	1,1,2,2-Tetrachloroethane	1200		U
108-88-3	Toluene	1200		U
108-90-7	Chlorobenzene	1200		U
100-41-4	Ethylbenzene	1200	140	J
100-42-5	Styrene	1200		U
78-87-5	1,2-Dichloropropane	1200		U
74-87-3	Chloromethane	1200		U
67-64-1	Acetone	1200	380	J
108-10-1	4-Methyl-2-pentanone	1200		U
78-93-3	2-butanone	1200		U
540-59-0	1,2-Dichloroethene (total)	1200		U
591-78-6	2-Hexanone	1200		U
1330-20-7	Xylene (total)	1200	220	J
75-15-0	Carbon Disulfide	1200		U

FORM I VOA

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Level:(low/med) MED

	SAMPLE NO.	SMC1 (DBF)#	SMC2 (TOL)#	SMC3 (BFB)#	OTHER	TOT OUT
01	VBLKQ4	104	85	96		0
02	VLCS40	97	85	98		0
03	WL00001TP	0*	0*	1927*		3
04	WL00001TPMS	0*	0*	1571*		3
05	WL00001TPMSD	0*	0*	1002*		3
06						
07						
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			QC LIMITS
SMC1	(DBF)	= Dibromofluoromethane	(80-120)
SMC2	(TOL)	= Toluene-d8	(81-117)
SMC3	(BFB)	= Bromofluorobenzene	(74-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM II VOA-2

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix Spike - Sample No.: WL00001TP Level:(low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	3125	0.000	0.000	0*	59-172
Trichloroethene	3125	4070000	3879000	-99*	62-137
Benzene	3125	0.000	0.000	0*	66-142
Toluene	3125	0.000	0.000	0*	59-139
Chlorobenzene	3125	0.000	0.000	0*	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	3125	0.000	0*	0	22	59-172
Trichloroethene	3125	4230000	999*	-2266	24	62-137
Benzene	3125	0.000	0*	0	21	66-142
Toluene	3125	0.000	0*	0	21	59-139
Chlorobenzene	3125	0.000	0*	0	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 10 out of 10 outside limits

COMMENTS: _____

3B

SOIL VOLATILE LAB CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

VLCS40

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Lab Sample ID: 914176 LCS Lot No.: SE115

Lab File ID: C3R14176B51.D Date Analyzed: 10/17/98

Purge Volume: 0.0 (mL) Dilution Factor: 1.0

LCS Aliquot: 500.0 (uL)

COMPOUND	AMOUNT ADDED (ug/Kg)	AMOUNT RECOVERED (ug/Kg)	%REC #	QC LIMITS
Benzene	6250	6453	103	66-142
Trichloroethene	6250	5707	91	62-137
Chlorobenzene	6250	6197	99	60-133
Toluene	6250	6052	97	59-139
1,1-Dichloroethene	6250	6009	96	59-172

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

LCS Recovery: 0 outside limits out of 5 total.

COMMENTS:

FORM III

COMPUCHEM
a division of Liberty Analytical Corp.

98 35142
Dayton Bldg 50
SVOCs
Oil

19/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

Subject: Report of Data - Account Number# 501112 Order# 33864

ATTN: MR. KEN VOGEL

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers 1 sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services please contact your representative at 1-800-833-5097.

Sincerely,

Diane Ellmore

CompuChem Environmental
a division of Liberty Analytical

Attachment

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel: 919-379-4100 ■ Fax: 919-379-4050

COMPUCHEM
a division of Liberty Analytical Corp.

19/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

ACCOUNT #: 501112

CC#	SAMPLE-ID	RECEIPT DATE
912839	WL00001TP	10/03/98

TOTAL NUMBER OF SAMPLES = 1

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel: 919-379-4100 ■ Fax: 919-379-4050

CompuChem
a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, NC 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE

CASE # 33864
SDG # 25101
PROTOCOL : SW846
PROJECT: YGQP9800251
SAMPLE IDENTIFICATION: WL00001TP

water?

The above soil sample was received intact, properly refrigerated, with proper documentation, in a sealed shipping container, on October 3, 1998. The sample was scheduled for the requested analysis of the volatile, semivolatile, and pest/PCB fractions. This sample was observed to be multiphasic in nature. Ken Vogel was notified. The sample WL00001 was divided into its two phases and assigned client ID#s WL00001TP for the top layer and WL00001BP for the bottom layer. The top layer presented here was extracted following the dilute-n-shoot methodology was analyzed following SW-846 Method 8270 3rd Edition protocol with the exception and/or additions requested by the client. This portion of the SDG narrative deals with the semivolatile fraction only.

Semivolatiles Section

Extraction and analysis holding time requirements were met for this sample.

There were no requested semivolatile target analytes identified above reported limits in WL00001TP. All of the surrogates met recovery criteria in the analysis of this sample. All of the internal standards met response and retention time criteria in the analysis of this sample. The associated method blank met all quality control criteria. WL00001TP was used as the original to prepare the duplicate matrix spikes as requested. With three exceptions, the associated duplicate matrix spikes met all advisory accuracy and precision criteria. The recovery of the spike compounds 4-nitrophenol and 4-nitroaniline were flagged as outliers in the matrix spike. The Relative Percent Difference (RPD) of hexachlorocyclopentadiene was flagged as an outlier in the comparison of the duplicate matrix spikes. The associated Laboratory Control Sample (LCS) met all accuracy criteria.

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

Paul T. Frankson
GC/MS Semivolatile Supervisor
October 15, 1998

CompuChem Receiving Log

10/5/98 See note on COC # 0502A

It: Chrysler (LBG)	Received on: 10-3-98 & 10/5 # of COC's 2	PPS / RFA # 251 & 252 Page 1 of 1
r # 338164	Delivered by: Fed Ex	Lab Instructions: TCL VOA, SV, PCB /
ect: Dayton Thermal	Freight # 806179983707, 806179983692	TCLP Metals / Corr / Ign / React / TOX
te # 98-7078	Subcontract Y / (N)	
ount # 501112	TAT: Verbal _____ Hardcopy 10 day	

SDG 1015	REQ	SAMPLE ID	CCN	AMOUNT / CONTAINER	PARAMETER	ANALYSIS CODE	LINE ITEM	SAMPLE DATE	MX	pH
5104	2	T093098	912811	2-60ml	VOA	1356	1	10-2-98	NA	NA
5102	3	WS00001	912814	2-4oz; 3-8oz	Corr. Ign. React. V, SV, ACKA Metal, PCB, TOX	1317, 1254, 1316, 1356, 797, 2020, 749, 4003	21, 26, 28, 30, 3, 7, 11, 18, 22		NA	
5103	4	↓	912834	1-8oz	TCLP metals	1816, 1143	13, 14			
5101	5	WL00001 ~~DR~~	912839	2-60ml; 10AL; 1-500ml PL	Corr. Ign, React. V, SV, ACKA Met. PCB, TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002	24, 26, 28, 1, 5, 9, 16, 20		XX 10/15/98 NA	NA
5104	6	WL00002	913008	6-AL; 1-500ml PL	Corr / Ign / React. SV / RCRA / PCB / TOX /	1317, 1254, 1316, 797, 2019, 748, 4002,	24, 26, 28, 5, 9, 16, 20		NA	NA
↓	7	WL00003 ~~DR~~	913017	2-60mL; 1-500mL PL; 9AL	Corr / Ign / React V / SV / RCRA / PCB / TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002,	24, 26, 28, 1, 5, 7, 16, 20,		NA	NA/42

DEllmore 10/5/98

gged In By: Marlene A. Amijo / Diane Ellmore

Order Entered By: Marlene A. Amijo / Diane Ellmore

anide samples checked for sulfide and chlorine Y (NA)

Received in good condition Y / (N) ID WL00003 – 4 (AL) VOA vials, lid broken

34 VOA vials, lid broken

CHRYSLER CORPORATION

Chain-of-Custody

01502 A

CompuChem
501 Madison Avenue
Cary, NC 27513
Phone Number: 1-800-833-5097
Fax Number: (919) 379-4050

Project Name: Dayton Thermal Products
Site Location: 1600 Webster St. Dayton OH 45401
Site Code: SC.001
RFA Number: YGQP9800251 and 252
Chrysler PM: Gary Stanczuk

Consultant: Leggette, Brashears & Graham, Inc
Address: 1210 West County Road E Suite 700
Saint Paul MN 55112
Consultant PM: Ken Vogel
Phone: 651 490 1405 Fax: 651 490-1006

Turn-around Time Request:
24 calendar hrs
48 calendar hrs
72 hrs
28 days
10 days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify) Sump liquid, Rinsewater

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	8260 VOCs	8270 A SVOCs	RCRA Metals 6/7000	TCLP Metals 6/7000	8080C PCBs	9020A TOH Aqueous	9020A TOH Solid	Ch.7 Corrosivity	Ch.7 Ignitability	Lab Use Only: Volatiles pH <2	Metals pH < 2	Cyanide pH > 12	Other ____	Remarks
WS00001	10-2-98	11:00	C	S	6	X	X	X	X	X		X	X	X					Solid Waste
WL00001	↓	12:00	G	O	13	X	X	X		X	X		X	X					Sump Liquid
WL00002	↓	12:50	G	O	13	X	X	X		X	X		X	X					Rinse water (TOC) Rec'd 2 vons broken & MALL broken up seriously. MJ 10/
T093098			-	O		X													Trip blank
See C-O-C 1503 for additional analyses.																			

Fed Ex 8069983707

Sampler(s)
Cindy Vanderhorst LJB

Cooler ID # 48 + 74

Is RFA sampling complete? Yes No

Bottles Relinquished under Airbill No.

Samples Relinquished under Airbill No. 8069983692 Fed Ex 8069983707 @ 11:51

Temperature (corrected) 3.9 C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Cindy Vanderhorst	10-2-98	1630				Yes No
						Yes No
			Received for Laboratory by: Marcenet J. Smith	10-3-98	11:45	Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Spoke w/ Ken Vogel on 10/5/98 regarding sample ID WL00001 Sample is biphasic. Sample will be split by layer, top phase will be labeled WL00001TP, bottom phase will be labeled WL00001BP. Also told Ken about broken bottles & no VOCs left (unsafe) 10/5/98

[illegible] placed on hold & placed on [illegible] cooler [illegible] of breakage

CHRYSLER CORPORATION

Chain-of-Custody

01503 A

CompuChem
501 Madison Avenue
Cary, NC 27513
Phone Number: 1-800-833-5097
Fax Number: (919) 379-4050

Project Name: Dayton Thermal Products
Site Location: 1600 Webster St Dayton OH 45401
Site Code: SC001
RFA Number: YGQP980025I and 252
Chrysler PM: Gary Stankevic

Consultant: Leggette, Brashears & Graham, Inc.
Address: 1210 West County Road E
St. Paul MN 55112
Consultant PM: Ken Vogel
Phone: 651 490-1405 Fax: 651 490-1006

Turn-around Time Request:
24 calendar hrs.
48 calendar hrs.
~~[illegible]~~
28 days
10 Days

Data Package Deliverables: (circle)
Chrysler Level I
Chrysler Level 2
Other (specify):

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify) Sump Liquid, Rinse water

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	Ch. 7 Reactivity Aqueous	Ch. 7 Reactivity Solid								Lab Use Only: Volatiles pH <2	Metals pH < 2	Cyanide pH > 12	Other ____	Remarks
WS00001	10-2-98	11:00	C	S			X												Solid waste
WL00001	↓	12:00	G	O		X													Sump Liquid
WL00002		12:50	G	O		X													Rinse Water
See C-O-C 1502 for additional analyses.																			

and 8061 7983707

Sampler(s)
Cindy Vanderhorst LJB

Cooler ID # 48 + 74

Is RFA sampling complete?
Yes No

Bottles Relinquished under Airbill No.

Samples Relinquished under Airbill No. 8061 7983 672 Quantity @ 11:57

Temperature (corrected) 3.9 C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Cindy Vanderhorst	10-2-98	16:30				Yes No
						Yes No
			Received for Laboratory by: Melissa A. Smith	10/3/98	11:45	Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Sample WL 00001 was placed in hold & placed in walk in cooler because of breakage

COMPUCHEM
a division of Liberty Analytical
501 Madison Avenue
Cary, NC 27513

October 5, 1998

To: Kenny
Mark
Ricky

From: Diane

Re: Case 33864 SDG 25101 & 25104

Sample WL00001 is biphasic. We received 2- 60 ml vials for this sample. The top phase (TP) is CCN 912839 (SDG 25101). This sample matrix is 'XX' (oil). The bottom phase (BP) is CCN 913017 (SDG 25104). This sample matrix is water. Both CCN's appear on the bottles. Please take care in analyzing the correct phase with the correct CCN.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001TP

Project: YGQP9800251 Date Sampled: 10/02/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix: (soil/water) SOIL Lab Sample ID: 912839

Sample wt/vol: 1.1 (g/mL) G Lab File ID: GH012839C68.D

Level: (low/med) LOW Date Received: 10/03/98

% Moisture: 0 decanted: (Y/N) N Date Extracted: 10/05/98

Concentrated Extract Volume: 10000(uL) Date Analyzed: 10/10/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N CONCENTRATION UNITS: UG/KG

CAS NO.	COMPOUND	DL	CONC	Q
108-95-2	Phenol	93000		U
111-44-4	bis(2-Chloroethyl)ether	93000		U
95-57-8	2-Chlorophenol	93000		U
541-73-1	1,3-Dichlorobenzene	93000		U
106-46-7	1,4-Dichlorobenzene	93000		U
95-50-1	1,2-Dichlorobenzene	93000		U
95-48-7	2-Methylphenol	93000		U
39638-32-9	Bis(2-chloroisopropyl)ether	93000		U
106-44-5	4-Methylphenol	93000		U
621-64-7	N-Nitroso-di-n-propylamine	93000		U
67-72-1	Hexachloroethane	93000		U
98-95-3	Nitrobenzene	93000		U
78-59-1	Isophorone	93000		U
88-75-5	2-Nitrophenol	93000		U
105-67-9	2,4-Dimethylphenol	93000		U
111-91-1	bis(2-Chloroethoxy)methane	93000		U
120-83-2	2,4-Dichlorophenol	93000		U
120-82-1	1,2,4-Trichlorobenzene	93000		U
91-20-3	Naphthalene	93000		U
106-47-8	4-Chloroaniline	93000		U
87-68-3	Hexachlorobutadiene	93000		U
59-50-7	4-Chloro-3-methylphenol	93000		U
91-57-6	2-Methylnaphthalene	93000		U
77-47-4	Hexachlorocyclopentadiene	93000		U
88-06-2	2,4,6-Trichlorophenol	93000		U
95-95-4	2,4,5-Trichlorophenol	450000		U
91-58-7	2-Chloronaphthalene	93000		U
88-74-4	2-Nitroaniline	450000		U
131-11-3	Dimethylphthalate	93000		U
208-96-8	Acenaphthylene	93000		U
606-20-2	2,6-Dinitrotoluene	93000		U
99-09-2	3-Nitroaniline	450000		U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001TP

Project: YGQP9800251 Date Sampled: 10/02/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix: (soil/water) SOIL Lab Sample ID: 912839

Sample wt/vol: 1.1 (g/mL) G Lab File ID: GH012839C68.D

Level: (low/med) LOW Date Received: 10/03/98

% Moisture: 0 decanted: (Y/N) N Date Extracted: 10/05/98

Concentrated Extract Volume: 10000(uL) Date Analyzed: 10/10/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N CONCENTRATION UNITS: UG/KG

CAS NO.	COMPOUND	DL	CONC	Q
83-32-9	Acenaphthene	93000		U
51-28-5	2,4-Dinitrophenol	450000		U
100-02-7	4-Nitrophenol	450000		U
121-14-2	2,4-Dinitrotoluene	93000		U
132-64-9	Dibenzofuran	93000		U
84-66-2	Diethylphthalate	93000		U
7005-72-3	4-Chlorophenyl-phenylether	93000		U
86-73-7	Fluorene	93000		U
100-01-6	4-Nitroaniline	450000		U
534-52-1	4,6-Dinitro-2-methylphenol	450000		U
86-30-6	N-nitrosodiphenylamine (1)	93000		U
101-55-3	4-Bromophenyl-phenylether	93000		U
118-74-1	Hexachlorobenzene	93000		U
87-86-5	Pentachlorophenol	450000		U
85-01-8	Phenanthrene	93000	13000	J
120-12-7	Anthracene	93000		U
86-74-8	Carbazole	93000		U
84-74-2	Di-n-butylphthalate	93000		U
206-44-0	Fluoranthene	93000	13000	J
129-00-0	Pyrene	93000	9500	J
85-68-7	Butylbenzylphthalate	93000	24000	J
91-94-1	3,3'-Dichlorobenzidine	190000		U
117-81-7	bis(2-Ethylhexyl)phthalate	93000	47000	J
56-55-3	Benzo(a)anthracene	93000		U
218-01-9	Chrysene	93000		U
117-84-0	Di-n-octylphthalate	93000		U
205-99-2	Benzo(b)fluoranthene	93000		U
207-08-9	Benzo(k)fluoranthene	93000		U
50-32-8	Benzo(a)pyrene	93000		U
193-39-5	Indeno(1,2,3-cd)pyrene	93000		U
53-70-3	Dibenzo(a,h)anthracene	93000		U
191-24-2	Benzo(g,h,i)perylene	93000		U

(1) - Cannot be separated from Diphenylamine

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKQI

Project: YGQP9800251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix: (soil/water) SOIL Lab Sample ID: 913027

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GJ013027B68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 10/05/98

Concentrated Extract Volume: 10000(uL) Date Analyzed: 10/13/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N CONCENTRATION UNITS: UG/KG

CAS NO.	COMPOUND	DL	CONC	Q
108-95-2	Phenol	99000		U
111-44-4	bis(2-Chloroethyl)ether	99000		U
95-57-8	2-Chlorophenol	99000		U
541-73-1	1,3-Dichlorobenzene	99000		U
106-46-7	1,4-Dichlorobenzene	99000		U
95-50-1	1,2-Dichlorobenzene	99000		U
95-48-7	2-Methylphenol	99000		U
39638-32-9	Bis(2-chloroisopropyl)ether	99000		U
106-44-5	4-Methylphenol	99000		U
621-64-7	N-Nitroso-di-n-propylamine	99000		U
67-72-1	Hexachloroethane	99000		U
98-95-3	Nitrobenzene	99000		U
78-59-1	Isophorone	99000		U
88-75-5	2-Nitrophenol	99000		U
105-67-9	2,4-Dimethylphenol	99000		U
111-91-1	bis(2-Chloroethoxy)methane	99000		U
120-83-2	2,4-Dichlorophenol	99000		U
120-82-1	1,2,4-Trichlorobenzene	99000		U
91-20-3	Naphthalene	99000		U
106-47-8	4-Chloroaniline	99000		U
87-68-3	Hexachlorobutadiene	99000		U
59-50-7	4-Chloro-3-methylphenol	99000		U
91-57-6	2-Methylnaphthalene	99000		U
77-47-4	Hexachlorocyclopentadiene	99000		U
88-06-2	2,4,6-Trichlorophenol	99000		U
95-95-4	2,4,5-Trichlorophenol	480000		U
91-58-7	2-Chloronaphthalene	99000		U
88-74-4	2-Nitroaniline	480000		U
131-11-3	Dimethylphthalate	99000		U
208-96-8	Acenaphthylene	99000		U
606-20-2	2,6-Dinitrotoluene	99000		U
99-09-2	3-Nitroaniline	480000		U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKQI

Project: YGQP9800251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix: (soil/water) SOIL Lab Sample ID: 913027

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GJ013027B68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:10/05/98

Concentrated Extract Volume: 10000(uL) Date Analyzed: 10/13/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N CONCENTRATION UNITS: UG/KG

CAS NO.	COMPOUND	DL	CONC	Q
83-32-9	Acenaphthene	99000		U
51-28-5	2,4-Dinitrophenol	480000		U
100-02-7	4-Nitrophenol	480000		U
121-14-2	2,4-Dinitrotoluene	99000		U
132-64-9	Dibenzofuran	99000		U
84-66-2	Diethylphthalate	99000		U
7005-72-3	4-Chlorophenyl-phenylether	99000		U
86-73-7	Fluorene	99000		U
100-01-6	4-Nitroaniline	480000		U
534-52-1	4,6-Dinitro-2-methylphenol	480000		U
86-30-6	N-nitrosodiphenylamine (1)	99000		U
101-55-3	4-Bromophenyl-phenylether	99000		U
118-74-1	Hexachlorobenzene	99000		U
87-86-5	Pentachlorophenol	480000		U
85-01-8	Phenanthrene	99000		U
120-12-7	Anthracene	99000		U
86-74-8	Carbazole	99000		U
84-74-2	Di-n-butylphthalate	99000		U
206-44-0	Fluoranthene	99000		U
129-00-0	Pyrene	99000		U
85-68-7	Butylbenzylphthalate	99000		U
91-94-1	3,3'-Dichlorobenzidine	200000		U
117-81-7	bis(2-Ethylhexyl)phthalate	99000		U
56-55-3	Benzo(a)anthracene	99000		U
218-01-9	Chrysene	99000		U
117-84-0	Di-n-octylphthalate	99000		U
205-99-2	Benzo(b)fluoranthene	99000		U
207-08-9	Benzo(k)fluoranthene	99000		U
50-32-8	Benzo(a)pyrene	99000		U
193-39-5	Indeno(1,2,3-cd)pyrene	99000		U
53-70-3	Dibenzo(a,h)anthracene	99000		U
191-24-2	Benzo(g,h,i)perylene	99000		U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSQI

Project: YGQP9800251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix: (soil/water) SOIL Lab Sample ID: 913028

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GH013028C68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:10/05/98

Concentrated Extract Volume: 10000(uL) Date Analyzed: 10/10/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N CONCENTRATION UNITS: UG/KG

CAS NO.	COMPOUND	DL	CONC	Q
108-95-2	Phenol	99000	98000	J
111-44-4	bis(2-Chloroethyl)ether	99000	130000	
95-57-8	2-Chlorophenol	99000	110000	
541-73-1	1,3-Dichlorobenzene	99000	110000	
106-46-7	1,4-Dichlorobenzene	99000	110000	
95-50-1	1,2-Dichlorobenzene	99000	120000	
95-48-7	2-Methylphenol	99000	95000	J
39638-32-9	Bis(2-chloroisopropyl)ether	99000	110000	
106-44-5	4-Methylphenol	99000	85000	J
621-64-7	N-Nitroso-di-n-propylamine	99000	110000	
67-72-1	Hexachloroethane	99000	110000	
98-95-3	Nitrobenzene	99000	120000	
78-59-1	Isophorone	99000	110000	
88-75-5	2-Nitrophenol	99000	110000	
105-67-9	2,4-Dimethylphenol	99000	110000	
111-91-1	bis(2-Chloroethoxy)methane	99000	120000	
120-83-2	2,4-Dichlorophenol	99000	100000	
120-82-1	1,2,4-Trichlorobenzene	99000	110000	
91-20-3	Naphthalene	99000	120000	
106-47-8	4-Chloroaniline	99000	60000	J
87-68-3	Hexachlorobutadiene	99000	120000	
59-50-7	4-Chloro-3-methylphenol	99000	96000	J
91-57-6	2-Methylnaphthalene	99000	100000	
77-47-4	Hexachlorocyclopentadiene	99000	70000	J
88-06-2	2,4,6-Trichlorophenol	99000	96000	J
95-95-4	2,4,5-Trichlorophenol	480000	96000	J
91-58-7	2-Chloronaphthalene	99000	85000	J
88-74-4	2-Nitroaniline	480000	97000	J
131-11-3	Dimethylphthalate	99000	120000	
208-96-8	Acenaphthylene	99000	110000	
606-20-2	2,6-Dinitrotoluene	99000	110000	
99-09-2	3-Nitroaniline	480000	84000	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSQI

Project: YGQP9800251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix: (soil/water) SOIL Lab Sample ID: 913028

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GH013028C68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:10/05/98

Concentrated Extract Volume: 10000(uL) Date Analyzed: 10/10/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N CONCENTRATION UNITS: UG/KG

CAS NO.	COMPOUND	DL	CONC	Q
83-32-9	Acenaphthene	99000	100000	
51-28-5	2,4-Dinitrophenol	480000	47000	J
100-02-7	4-Nitrophenol	480000	78000	J
121-14-2	2,4-Dinitrotoluene	99000	98000	J
132-64-9	Dibenzofuran	99000	93000	J
84-66-2	Diethylphthalate	99000	120000	
7005-72-3	4-Chlorophenyl-phenylether	99000	110000	
86-73-7	Fluorene	99000	110000	
100-01-6	4-Nitroaniline	480000	98000	J
534-52-1	4,6-Dinitro-2-methylphenol	480000	68000	J
86-30-6	N-nitrosodiphenylamine (1)	99000	110000	
101-55-3	4-Bromophenyl-phenylether	99000	100000	
118-74-1	Hexachlorobenzene	99000	100000	
87-86-5	Pentachlorophenol	480000	59000	J
85-01-8	Phenanthrene	99000	100000	
120-12-7	Anthracene	99000	100000	
86-74-8	Carbazole	99000	92000	J
84-74-2	Di-n-butylphthalate	99000	110000	
206-44-0	Fluoranthene	99000	110000	
129-00-0	Pyrene	99000	100000	
85-68-7	Butylbenzylphthalate	99000	110000	
91-94-1	3,3'-Dichlorobenzidine	200000	79000	J
117-81-7	bis(2-Ethylhexyl)phthalate	99000	120000	
56-55-3	Benzo(a)anthracene	99000	100000	
218-01-9	Chrysene	99000	95000	J
117-84-0	Di-n-octylphthalate	99000	120000	
205-99-2	Benzo(b)fluoranthene	99000	100000	
207-08-9	Benzo(k)fluoranthene	99000	120000	
50-32-8	Benzo(a)pyrene	99000	120000	
193-39-5	Indeno(1,2,3-cd)pyrene	99000	110000	
53-70-3	Dibenzo(a,h)anthracene	99000	120000	
191-24-2	Benzo(g,h,i)perylene	99000	120000	

(1) - Cannot be separated from Diphenylamine

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Level: (low/med) LOW

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 #	S8 #	TOT OUT
01	SBLKQI	83	90	79	81	81	82			0
02	SLCSQI	85	87	81	82	87	81			0
03	WL00001TP	99	98	70	92	91	84			0
04	WL00001TPMS	106	101	65	90	90	87			0
05	WL00001TPMSD	102	89	65	89	87	87			0
06										
07										
08										
09										
10										
11										
12										
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22										
23										
24										
25										
26										
27										
28										
29										
30										

			QC LIMITS
S1	(NBZ)	= Nitrobenzene-d5	(23-120)
S2	(FBP)	= 2-Fluorobiphenyl	(30-115)
S3	(TPH)	= Terphenyl-d14	(18-137)
S4	(PHL)	= Phenol-d5	(24-113)
S5	(2FP)	= 2-Fluorophenol	(25-121)
S6	(TBP)	= 2,4,6-Tribromophenol	(19-122)

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

Data File: /chem/5972hp68.i/DF981010C68.b/GH013028C68.d
Report Date: 13-Oct-1998 08:33

CompuChem Environmental Corp.

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: 913028
Level: LOW
Data Type: MS DATA
SpikeList File: TCL.spk
Client SDG: 25101-33864
Fraction: SV
Client Smp ID: SLCSQI
Operator: 2358
SampleType: METHSPIKE
Quant Type: ISTD
Method File: /chem/5972hp68.i/DF981010C68.b/8270_288.m
Misc Info: YGQP9800251

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
15 Phenol	100000	97790	97.79	10-150
17 bis(2-Chloroethyl)	100000	125500	125.55	10-150
18 2-Chlorophenol	100000	106000	105.95	10-150
19 1,3-Dichlorobenzen	100000	113900	113.94	10-150
20 1,4-Dichlorobenzen	100000	112600	112.66	10-150
21 1,2-Dichlorobenzen	100000	116300	116.30	10-150
22 2-Methylphenol	100000	95080	95.08	10-150
23 Bis(2-chloroisopro	100000	112500	112.46	10-150
25 4-Methylphenol	200000	84930	42.46	10-150
26 N-Nitroso-di-n-pro	100000	105800	105.82	10-150
27 Hexachloroethane	100000	109300	109.28	10-150
28 Nitrobenzene	100000	120700	120.72	10-150
29 Isophorone	100000	112700	112.71	10-150
31 2,4-Dimethylphenol	100000	109900	109.92	10-150
30 2-Nitrophenol	100000	111700	111.71	10-150
32 bis(2-Chloroethoxy	100000	118700	118.72	10-150
33 2,4-Dichlorophenol	100000	100900	100.92	10-150
34 1,2,4-Trichloroben	100000	109600	109.57	10-150
35 Naphthalene	100000	119500	119.49	10-150
36 4-Chloroaniline	100000	59740	59.74	10-150
37 Hexachlorobutadien	100000	118100	118.14	10-150
38 4-Chloro-3-methylp	100000	96480	96.48	10-150
39 2-Methylnaphthalen	100000	100800	100.79	10-150
41 Hexachlorocyclopen	100000	70490	70.49	0-150
42 2,4,6-Trichlorophe	100000	96090	96.09	10-150
43 2,4,5-Trichlorophe	100000	96500	96.50	10-150
44 2-Chloronaphthalen	100000	84760	84.76	10-150
45 2-Nitroaniline	100000	96990	96.99	10-150
46 Dimethylphthalate	100000	119400	119.36	10-150
48 2,6-Dinitrotoluene	100000	108700	108.70	10-150
47 Acenaphthylene	100000	105800	105.82	10-150
49 3-Nitroaniline	100000	84110	84.11	10-150
50 Acenaphthene	100000	103600	103.64	10-150
51 2,4-Dinitrophenol	100000	47470	47.47	10-150
52 4-Nitrophenol	100000	78190	78.19	10-150
53 2,4-Dinitrotoluene	100000	97860	97.86	10-150

Data File: /chem/5972hp68.i/DF981010C68.b/GH013028C68.d
Report Date: 13-Oct-1998 08:33

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
54 Dibenzofuran	100000	93460	93.46	10-150
55 Diethylphthalate	100000	119800	119.76	10-150
56 4-Chlorophenyl-phe	100000	109100	109.14	10-150
57 Fluorene	100000	106300	106.31	10-150
58 4-Nitroaniline	100000	97780	97.78	10-150
59 4,6-Dinitro-2-meth	100000	67980	67.98	10-150
60 N-nitrosodiphenyla	100000	109000	108.98	10-150
62 4-Bromophenyl-phen	100000	101200	101.23	10-150
63 Hexachlorobenzene	100000	103600	103.66	10-150
64 Pentachlorophenol	100000	58970	58.97	10-150
65 Phenanthrene	100000	102000	102.02	10-150
66 Anthracene	100000	100100	100.15	10-150
67 Carbazole	100000	91570	91.57	10-150
68 Di-n-butylphthalat	100000	110200	110.21	10-150
69 Fluoranthene	100000	110000	110.00	10-150
71 Pyrene	100000	102600	102.55	10-150
72 Butylbenzylphthala	100000	109500	109.47	10-150
73 3,3'-Dichlorobenzi	100000	78780	78.79	10-150
74 bis(2-Ethylhexyl)p	100000	115100	115.09	10-150
75 Benzo(a)anthracene	100000	104000	104.05	10-150
76 Chrysene	100000	95200	95.20	10-150
77 Di-n-octylphthalat	100000	121700	121.74	10-150
78 Benzo(b)fluoranthe	100000	101400	101.36	10-150
79 Benzo(k)fluoranthe	100000	124400	124.40	10-150
80 Benzo(a)pyrene	100000	115500	115.49	10-150
81 Indeno(1,2,3-cd)py	100000	107800	107.75	10-150
82 Dibenzo(a,h)anthra	100000	121200	121.24	10-150
83 Benzo(g,h,i)peryle	100000	120200	120.24	10-150

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 7 2-Fluorophenol	200000	173700	86.83	25-121
$ 8 Phenol-d5	200000	163000	81.51	24-113
$ 9 Nitrobenzene-d5	100000	84680	84.68	23-120
$ 10 2-Fluorobiphenyl	100000	86590	86.59	30-115
$ 11 2,4,6-Tribromophen	200000	162100	81.05	19-122
$ 12 Terphenyl-d14	100000	80920	80.92	18-137

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix Spike - Sample No.: WL00001TP Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	99010	0.000	109100	110	10-150
bis(2-Chloroethyl)ether	99010	0.000	122500	124	10-150
2-Chlorophenol	99010	0.000	112400	114	10-150
1,3-Dichlorobenzene	99010	0.000	115600	117	10-150
1,4-Dichlorobenzene	99010	0.000	124200	125	10-150
1,2-Dichlorobenzene	99010	0.000	118700	120	10-150
2-Methylphenol	99010	0.000	111600	113	10-150
Bis(2-chloroisopropyl)e	99010	0.000	142800	144	10-150
4-Methylphenol	198000	0.000	95880	48	10-150
N-Nitroso-di-n-prop.(1)	99010	0.000	87560	88	10-150
Hexachloroethane	99010	0.000	119700	121	10-150
Nitrobenzene	99010	0.000	136900	138	10-150
Isophorone	99010	0.000	116300	117	10-150
2-Nitrophenol	99010	0.000	127100	128	10-150
2,4-Dimethylphenol	99010	0.000	121300	122	10-150
bis(2-Chloroethoxy)meth	99010	0.000	132500	134	10-150
2,4-Dichlorophenol	99010	0.000	111900	113	10-150
1,2,4-Trichlorobenzene	99010	0.000	120500	122	10-150
Naphthalene	99010	0.000	126200	127	10-150
4-Chloroaniline	99010	0.000	90700	92	10-150
Hexachlorobutadiene	99010	0.000	127000	128	10-150
4-Chloro-3-methylphenol	99010	0.000	127000	128	10-150
2-Methylnaphthalene	99010	0.000	108500	110	10-150
Hexachlorocyclopentadie	99010	0.000	7944	8	0-150
2,4,6-Trichlorophenol	99010	0.000	121900	123	10-150
2,4,5-Trichlorophenol	99010	0.000	120800	122	10-150
2-Chloronaphthalene	99010	0.000	110700	112	10-150
2-Nitroaniline	99010	0.000	130600	132	10-150
Dimethylphthalate	99010	0.000	131500	133	10-150
Acenaphthylene	99010	0.000	118000	119	10-150

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix Spike - Sample No.: WL00001TP Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
2,6-Dinitrotoluene	99010	0.000	130100	131	10-150
3-Nitroaniline	99010	0.000	140900	142	10-150
Acenaphthene	99010	0.000	117500	119	10-150
2,4-Dinitrophenol	99010	0.000	70030	71	10-150
4-Nitrophenol	99010	0.000	163900	166*	10-150
2,4-Dinitrotoluene	99010	0.000	130400	132	10-150
Dibenzofuran	99010	0.000	106000	107	10-150
Diethylphthalate	99010	0.000	120600	122	10-150
4-Chlorophenyl-phenylet	99010	0.000	122100	123	10-150
Fluorene	99010	0.000	116400	118	10-150
4-Nitroaniline	99010	0.000	159800	161*	10-150
4,6-Dinitro-2-methylphe	99010	0.000	99290	100	10-150
N-nitrosodiphenylamine	99010	0.000	118200	119	10-150
4-Bromophenyl-phenyleth	99010	0.000	121300	122	10-150
Hexachlorobenzene	99010	0.000	110900	112	10-150
Pentachlorophenol	99010	0.000	83650	84	10-150
Phenanthrene	99010	13430	116500	104	10-150
Anthracene	99010	0.000	114100	115	10-150
Carbazole	99010	0.000	111900	113	10-150
Di-n-butylphthalate	99010	0.000	112800	114	10-150
Fluoranthene	99010	13320	138200	126	10-150
Pyrene	99010	9495	93820	85	10-150
Butylbenzylphthalate	99010	24360	95570	72	10-150
3,3'-Dichlorobenzidine	99010	0.000	92470	93	10-150
bis(2-Ethylhexyl)phthal	99010	47340	121800	75	10-150
Benzo(a)anthracene	99010	0.000	118000	119	10-150
Chrysene	99010	0.000	111600	113	10-150
Di-n-octylphthalate	99010	0.000	91420	92	10-150
Benzo(b)fluoranthene	99010	0.000	116800	118	10-150
Benzo(k)fluoranthene	99010	0.000	120800	122	10-150

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix Spike - Sample No.: WL00001TP Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Benzo(a)pyrene	99010	0.000	123000	124	10-150
Indeno(1,2,3-cd)pyrene	99010	0.000	107000	108	10-150
Dibenzo(a,h)anthracene	99010	0.000	112400	114	10-150
Benzo(g,h,i)perylene	99010	0.000	120100	121	10-150

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix Spike - Sample No.: WL00001TP Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	97090	106500	110	0	40	10-150
bis(2-Chloroethyl)ether	97090	125700	129	4	40	10-150
2-Chlorophenol	97090	110800	114	0	40	10-150
1,3-Dichlorobenzene	97090	114400	118	1	40	10-150
1,4-Dichlorobenzene	97090	117800	121	3	40	10-150
1,2-Dichlorobenzene	97090	117600	121	1	40	10-150
2-Methylphenol	97090	106900	110	3	40	10-150
Bis(2-chloroisopropyl)e	97090	139100	143	1	40	10-150
4-Methylphenol	194200	98180	50	4	40	10-150
N-Nitroso-di-n-prop.(1)	97090	90640	93	6	40	10-150
Hexachloroethane	97090	119400	123	2	40	10-150
Nitrobenzene	97090	121800	125	10	40	10-150
Isophorone	97090	113300	117	0	40	10-150
2-Nitrophenol	97090	120600	124	3	40	10-150
2,4-Dimethylphenol	97090	117800	121	1	40	10-150
bis(2-Chloroethoxy)meth	97090	119800	123	8	40	10-150
2,4-Dichlorophenol	97090	109500	113	0	40	10-150
1,2,4-Trichlorobenzene	97090	113700	117	4	40	10-150
Naphthalene	97090	114200	118	7	40	10-150
4-Chloroaniline	97090	69830	72	24	40	10-150
Hexachlorobutadiene	97090	116300	120	6	40	10-150
4-Chloro-3-methylphenol	97090	117000	120	6	40	10-150
2-Methylnaphthalene	97090	99810	103	6	40	10-150
Hexachlorocyclopentadie	97090	13410	14	54*	40	0-150
2,4,6-Trichlorophenol	97090	114200	118	4	40	10-150
2,4,5-Trichlorophenol	97090	110800	114	7	40	10-150
2-Chloronaphthalene	97090	105200	108	4	40	10-150
2-Nitroaniline	97090	111300	115	14	40	10-150
Dimethylphthalate	97090	115100	118	12	40	10-150
Acenaphthylene	97090	110200	114	4	40	10-150

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix Spike - Sample No.: WL00001TP Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,6-Dinitrotoluene	97090	112500	116	12	40	10-150
3-Nitroaniline	97090	101600	105	30	40	10-150
Acenaphthene	97090	109900	113	5	40	10-150
2,4-Dinitrophenol	97090	74130	76	7	40	10-150
4-Nitrophenol	97090	131700	136	20	40	10-150
2,4-Dinitrotoluene	97090	106900	110	18	40	10-150
Dibenzofuran	97090	99820	103	4	40	10-150
Diethylphthalate	97090	112100	115	6	40	10-150
4-Chlorophenyl-phenylet	97090	103600	107	14	40	10-150
Fluorene	97090	105400	108	9	40	10-150
4-Nitroaniline	97090	120100	124	26	40	10-150
4,6-Dinitro-2-methylphe	97090	82510	85	16	40	10-150
N-nitrosodiphenylamine	97090	108600	112	6	40	10-150
4-Bromophenyl-phenyleth	97090	94170	97	23	40	10-150
Hexachlorobenzene	97090	93250	96	15	40	10-150
Pentachlorophenol	97090	78540	81	4	40	10-150
Phenanthrene	97090	106300	96	8	40	10-150
Anthracene	97090	102900	106	8	40	10-150
Carbazole	97090	98890	102	10	40	10-150
Di-n-butylphthalate	97090	103200	106	7	40	10-150
Fluoranthene	97090	124500	114	10	40	10-150
Pyrene	97090	92120	85	0	40	10-150
Butylbenzylphthalate	97090	100800	79	9	40	10-150
3,3'-Dichlorobenzidine	97090	88840	92	1	40	10-150
bis(2-Ethylhexyl)phthal	97090	118600	73	3	40	10-150
Benzo(a)anthracene	97090	106300	109	9	40	10-150
Chrysene	97090	104500	108	4	40	10-150
Di-n-octylphthalate	97090	76410	79	15	40	10-150
Benzo(b)fluoranthene	97090	108700	112	5	40	10-150
Benzo(k)fluoranthene	97090	122500	126	3	40	10-150

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Matrix Spike - Sample No.: WL00001TP Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Benzo(a)pyrene	97090	115200	119	4	40	10-150
Indeno(1,2,3-cd)pyrene	97090	103300	106	2	40	10-150
Dibenzo(a,h)anthracene	97090	109100	112	2	40	10-150
Benzo(g,h,i)perylene	97090	115400	119	2	40	10-150

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

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

RPD: 1 out of 64 outside limits
Spike Recovery: 2 out of 128 outside limits

COMMENTS: _____

4B

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

SBLKQI

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25101

Lab File ID: GJ013027B68.D Lab Sample ID: 913027

Instrument ID: 5972HP68 Date Extracted: 10/05/98

Matrix: (soil/water) SOIL Date Analyzed: 10/13/98

Level:(low/med) LOW Time Analyzed: 1729

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SLCSQI	913028	GH013028C68.D	10/10/98
02	WL00001TP	912839	GH012839C68.D	10/10/98
03	WL00001TPMS	912840	GH012840C68.D	10/10/98
04	WL00001TPMSD	912841	GH012841C68.D	10/10/98
05				
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COMMENTS:

FORM IV SV

COMPUCHEM
a division of Liberty Analytical Corp.

LBG | VOGEL

98-251 #2
inorganics
Dayton Bldg 50
oil

19/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

Subject: Report of Data - Account Number# 501112 Order# 33864

ATTN: MR. KEN VOGEL

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers 1 sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services please contact your representative at 1-800-833-5097.

Sincerely,

Diane Ellmore

CompuChem Environmental
a division of Liberty Analytical

Attachment

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel: 919-379-4100 ■ Fax: 919-379-4050

COMPUCHEM
a division of Liberty Analytical Corp.

19/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

ACCOUNT #: 501112

CC#	SAMPLE-ID	RECEIPT DATE
912839	WL00001TP	10/03/98

TOTAL NUMBER OF SAMPLES = 1

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel: 919-379-4100 ■ Fax: 919-379-4050

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864 SAS No.: _____ SDG No.:25101_

SOW No.: SW846__

EPA Sample No.	Lab Sample ID
_WL00001TP____	_912839_____
_WL00001TPD___	_912845_____
_WL00001TPM___	_912843_____
_WL00001TPS___	_912842_____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:
____THE_FOLLOWING_ANALYTES_HAVE_BEEN_FLAGGED_WITH_AN_"E"_TO_INDICATE_____
____SERIAL_DILUTION_RESULTS_WHICH_ARE_NOT_WITHIN_CONTROL_LIMITS:_____
____BARIUM_____

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

Signature: Carol J. Yandell Name: Carol Yandell

Date: 10/12/98 Title: Inorganic Manager

CompuChem
501 Madison Avenue Cary, NC 27513

INORGANIC CASE SUMMARY NARRATIVE
CASE # 33864 SDG # 25101
PROTOCOL #SW-846

The indicated Sample Delivery Group (SDG) consisting of one oil sample was received into the laboratory management system (LIMS) on October 3, 1998 intact and in good condition with Chain of Custody (COC) records in order. Sample ID's reported in this data package are noted by the receiving department on the COC if they differ from those listed by the samplers on the COC.

The sample was analyzed for the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver) using analytical methods delineated in SW-846 (3rd edition) or EPA accepted CLP related modifications of those methods.

SAMPLE IDs:

The following customer ID is associated with this SDG:

WL00001TP

INSTRUMENTAL QUALITY CONTROL:

All calibration verification solutions (ICV & CCV), blanks (ICB, CCB) and interference check samples (ICSA & ICSAB) associated with this data were confirmed to be within SW-846 allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:

The sample preparation procedure verifications (LCSS & PBS) were found to be within acceptable ranges and all field samples were prepared and analyzed within the contract specified holding times.

MATRIX RELATED QUALITY CONTROL:

The sample matrix spike, 912842 (WL00001TPS) was found to be outside control limits for arsenic, barium, chromium and selenium. The sample matrix spike duplicate, 912843 (WL00001TPM) was found to be outside control limits for barium and selenium. The reported concentrations for these analytes are flagged with an "N" on all associated Form 1 and on Form 5a.

An "N" indicates a matrix-related interference in the sample preparation procedure &/or analysis for the flagged analyte. This is normally the consequence of a relatively high anionic content in the sample or (for some sediments) an inconsistent sample matrix relative to that analyte.

SW-846 control limits for matrix spike recoveries are set at 80% to 120% of the analyte quantity added unless original sample concentrations exceed the true values of these "spikes" by a factor of four or more; in this case effected analytes are not flagged even if recoveries fall outside percentage recovery control limits.

Post-digestion spikes are mandatory for analytes demonstrating unsatisfactory matrix spike recoveries during ICP analysis (excluding silver). The results of such spikes are presented on Form 5b.

Unsatisfactory recovery of post-digestion spikes of this type do not have bearing upon the aforementioned "N" flags, but may indicate interference during analysis &/or a solution matrix which is hostile to the analyte in question.

Satisfactory recovery of an analyte in a post-digestion spike of this type implies interference by the required preparation procedure or in the sample matrix itself. Lack of uniformity for an analyte in sediments will also result in satisfactory recovery of post-digestion spikes after failure in the related matrix spike.

The sample matrix duplicate, 912845 (WL00001TPD) was out of control for barium, chromium and lead. The reported concentrations for these analytes are flagged with a "*" on all associated Form 1 and on Form 6.

A "*" indicates a non-homogeneous sample matrix in regard to the flagged analyte. This is normally the consequence of a relatively coarse texture or of a mixed-matrix in sediment samples.

SW-846 control limits for duplicate determinations are +/- 20% Relative Percent Difference (RPD) for concentrations greater than or equal to five times the CRDL in both the original and duplicate samples, and +/- the CRDL for concentrations less than five times the CRDL. The RPD is not calculated if both the original and duplicate values fall below the IDL.

A four-fold serial dilution of sample, 912839 (WL00001TPL) was performed in accordance with SW-846 requirements for ICP analysis.

The adjusted sample concentrations were outside control limits for barium, which are flagged with an "E" on all associated Form 1, the Cover Page and Form 9.

An "E" indicates that a chemical or physical interference effect was encountered during the analysis of the flagged analyte. As a result of this interference, all values for the analyte in the same matrix must be considered to be estimated quantities.

SW-846 control limits for serial dilution are defined as a deviation less than or equal to 10% in the dilution-adjusted concentrations from the original values for all analyte concentrations with values greater than fifty (50) times their respective Instrument Detection Limit (IDL) in the original sample.

This SDG package was processed using the Ward Scientific software. This software package has a seven character limitation on the Forms 13 and 14 -- any sample ID's which exceed seven characters are truncated from left to right on these forms.

Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Carol J. Yandell
Senior Chemist
October 12, 1998

Note: This report is paginated for reference and accountability.

CompuChem
a Division of Liberty Analytical Corp.
501 Madison Avenue Cary, NC 27513

CompuChem Environmental Corportation

DATA REPORTING QUALIFIERS FOR INORGANICS

On Form I, under the column labeled "C" for concentration qualifier and "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each analyte.

The C (concentration) qualifiers used are:

U: This flag indicates the analyte was analyzed for but not detected. This reported value was obtained from a reading that was less than the Instrument Detection Limit (IDL). The IDL will be adjusted to reflect any dilution and, for soils, the percent moisture.

B: This flag indicates the analyte was analyzed for and the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL). This flag also indicates the analyte was not detected, but the result is greater than or equal to the IDL.

The Q qualifiers used are:

E: This flag indicates an estimated value. This flag is used:

1. when the serial dilution (a five fold dilution for CLP and a four fold dilution for SW-846 method 6010A) results are not within 10%. The analyte concentration must be sufficiently high (minimally a factor of 50X above the IDL in the original sample).
2. when the analytical spike recovery associated with the sample is below 40% after two successive dilutions by Graphite Furnace Atomic Absorption (GFAA).

M: This flag applies to GFAA analyses for concentrations greater than the Contract Required Detection Limit (CRDL). This flag is only used for GFAA if the analytical sample or analytical spike duplicate injection reading is not within 20% of the Relative Standard Deviation (RSD).

N: This flag indates the sample spike recovery is outside of control limits:

***:** This flag is used for duplicate analysis when the sample and the sample duplicate results are not within control limits.

S: This flag applies to GFAA analyses to indicate the reported value was determined by the Method of Standard Additions (MSA).

W: This flag applies to GFAA analyses when the post-digestion spike (analytical spike) is out of control limits (85% - 115%), while sample absorbance is less than 50% of "spike" absorbance ["spike" is defined as (absorbance or concentration of spike sample) minus (absorbance or concentration of the sample)].

+: This flag applies to GFAA analyses when the correlation coefficient for the MSA is less than 0.995 after two MSA analyses.

NOTE: Entering "S", "W", or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

CompuChem Receiving Log

10/5/98 See note on COC #0502A

Client: Chrysler (LBG)
Order #: 338604
Project: Dayton Thermal
Quote #: 98-7078
Account #: 501112

Received on: 10.3.98 & 10/5 # of COC's: 2
Delivered by: Fed Ex
Freight #: 806179983707, 806179983692
Subcontract Y / (N)
TAT: Verbal _____ Hardcopy 10-day

PPS / (RFA #) 251 & 252 Page 1 of 1
Lab Instructions: TCL VOA, SV, PCB / TCLP Metals / Corr / Ign / React / TOX

	SDG	REQ	SAMPLE ID	CCN	AMOUNT / CONTAINER	PARAMETER	ANALYSIS CODE	LINE ITEM	SAMPLE DATE	MX	pH
1	25104 DE 10/5	2	T093098	912811	2·60ml	VOA	1356	1	10·2·98	WA	NA
2	25102	3	WS00001	912814	2·4oz; 3·8oz	Corr. Ign. Rec.c. V, SV, RCRA metals, PCB, TOX	1317, 1254, 1316, 1357, 798, 2020, 749, 4003	24, 26, 28, 30, 3, 7, 11, 18, 22		SO	
3	25103	4	↓	912834	1·8oz	TCLP metals	1816, 1143	13, 14		↓	↓
4	25101	5	WL00001 ~~BT/P~~ DE 10/5	912839	2·60ml; 10AL; 1·500ml PL	Corr., Ign, React. V, SV, RCRA Met. PCB, TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002	24, 26, 28, 1, 5, 9, 16, 20,		XX 10/5/98	NA <2
5	25104	6	WL00002	913008	6·AL; 1·500ml PL	Corr / Ign / React. SV/RCRA/PCB/TOX/	1317, 1254, 1316, 797, 2019, 748, 4002,	24, 26, 28, 5, 9, 16, 20	↓	WA	NA <2
6	↓	7	WL00000 ~~TR 1/5~~ DE 10/5	913017	2-60ml · 1-500ml PL · 9AL	Corr / Ign / React V/SV/RCRA/PCB/TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002,	24, 26, 28, 1, 5, 7, 16, 20,	↓	WA	NA/<2
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D Ellmore 10/5/98

Logged In By: Marlene J. Arujo / Diane Ellmore
Order Entered By: Marlene J. Arujo / Diane Ellmore
Cyanide samples checked for sulfide and chlorine Y / (NA)
Received in good condition Y / (N) ID WL00002 — 4-(AL) seals broken. 3 of 4 VOA vials rec'd broc
Holding Blank(s): Counter / Page / CCN's /
Temperature(s) 3.9 °C

CHRYSLER CORPORATION

Chain-of-Custody

01502 A

CompuChem
501 Madison Avenue
Cary, NC 27513
Phone Number: 1-800-833-5097
Fax Number: (919) 379-4050

Project Name: Dayton Thermal Products
Site Location: 1600 Webster St. Dayton OH 45401
Site Code: SC001
RFA Number: YGQP9800251 and 252
Chrysler PM: Gary Stanczuk

Consultant: Leggette, Brashears & Graham, Inc.
Address: 1210 West County Road E Suite 700
Saint Paul MN 55112
Consultant PM: Ken Vogel
Phone: 651 490 1405 Fax: 651 490-1006

Turn-around Time Request:
24 calendar hrs
48 calendar hrs
~~5 days~~
28 days
10 days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Matrix Codes
S - Soil SW - Surface Water
GW - Groundwater A - Air
Sed. - Sediment
O - Other (specify) Sump liquid, Rinsewater

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	8260 VOCs	8270A SVOCs	RCRA Metals 6/7000	TCLP Metals 6/7000	8080 PCBs	9020A TOH Aqueous	9020A TOH Solid	Ch.7 Corrosivity	Ch.7 Ignitability	Volatiles pH < 2	Metals pH < 2	Cyanide pH > 12	Other ____	Remarks
WS00001	10-2-98	11:00	C	S	6	X	X	X	X	X		X	X	X					Solid Waste
WL00001	↓	12:00	G	O	13	X	X	X		X	X		X	X					Sump Liquid
WL00002	↓	12:50	G	O	13	X	X	X		X	X		X	X					Rinse water (2) Recvd 2 vocs broken & 1 AL broken w/ receipt. MJ 10
T093098			—	O		X													Trip blank
See C-O-C 1503 for additional analyses.																			

and 806 7983701 opened @ 11:51

Sampler(s) Cindy Vanderhorst LJB

Cooler ID # 48 + 74

Is RFA sampling complete? (Yes) No

Bottles Relinquished under Airbill No.

Relinquished by:	Date:	Time:
Cindy Vanderhorst	10-2-98	1630

Samples Relinquished under Airbill No. 806 7983692

Received by:	Date:	Time:	Custody Seal Intact?
			Yes No
			Yes No
Received for Laboratory by: Marlene J. Smith	10-3-98	11:45	(Yes) No

Temperature (corrected) 3.9 C

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow : Retained by laboratory Pink: Retained by sampler

Spoke w/ Ken Vogel on 10/5/98 regarding sample ID WL00001. Sample is biphasic. Sample will be split by layer, top phase will be labeled WL00001TP, bottom phase will be labeled WL00001BP. Also told Ken about broken bottle (no VOCs for unsate) 10/5/98

Sample WL00002 placed on hold @ placed in S/MP rack in cooler because of breakage. All other samples placed @ 12:15

Revision No 1
Created: September 23, 1997

Page ____ of ____

COMPUCHEM
a division of Liberty Analytical
501 Madison Avenue
Cary, NC 27513

October 5, 1998

To: Kenny
Mark
Ricky

From: Diane

Re: Case 33864 SDG 25101 & 25104

Sample WL00001 is biphasic. We received 2- 60 ml vials for this sample. The top phase (TP) is CCN 912839 (SDG 25101). This sample matrix is 'XX' (oil). The bottom phase (BP) is CCN 913017 (SDG 25104). This sample matrix is water. Both CCN's appear on the bottles. Please take care in analyzing the correct phase with the correct CCN.

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WL00001TP

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

Matrix (soil/water): SOIL_ Lab Sample ID: 912839

Level (low/med): LOW__ Date Received: 10/03/98

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	0.37	U	N	P
7440-39-3	Barium	101		EN*	P
7440-43-9	Cadmium	0.61			P
7440-47-3	Chromium	9.0		N*	P
7439-92-1	Lead	182		*	P
7439-97-6	Mercury	0.05	U		CV
7782-49-2	Selenium	0.52	U	N	P
7440-22-4	Silver	1.0			P

Color Before: GREEN____ Clarity Before: _____ Texture: FINE__

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

Duplicate_(WL00001TPD)

FORM I - IN SW846

3
BLANKS

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

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
Arsenic	3.7	U	3.7	U	3.7	U	3.7	U	0.37	U	P
Barium	0.6	U	0.6	U	0.6	U	0.6	U	0.06	U	P
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U	0.03	U	P
Chromium	-0.8	B	0.7	U	0.7	U	0.7	U	0.07	U	P
Lead	1.6	U	1.6	U	2.2	B	2.4	B	0.16	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.05	U	CV
Selenium	5.2	U	5.2	U	5.2	U	5.2	U	0.52	U	P
Silver	0.6	U	0.6	U	0.6	U	0.6	U	0.06	U	P

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

WL00001TPM

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75-125	3.1160		0.3700	U	4.00	77.9		P
Barium	75-125	184.7000		101.1000		200.00	41.8	N	P
Cadmium	75-125	4.7060		0.6128		5.00	81.9		P
Chromium	75-125	24.3300		9.0430		20.00	76.4		P
Lead		153.1000		182.4000		2.00	-1465.0		P
Mercury	75-125	0.5835		0.0500	U	0.50	116.7		CV
Selenium	75-125	0.7377		0.5200	U	1.00	73.8	N	P
Silver	75-125	4.9650		1.0010		5.00	79.3		P

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

WL00001TPS

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75-125	2.6260		0.3700	U	4.00	65.6	N	P
Barium	75-125	174.0000		101.1000		200.00	36.4	N	P
Cadmium	75-125	4.5360		0.6128		5.00	78.5		P
Chromium	75-125	23.5000		9.0430		20.00	72.3	N	P
Lead		148.8000		182.4000		2.00	-1680.0		P
Mercury	75-125	0.6225		0.0500	U	0.50	124.5		CV
Selenium	75-125	0.7377		0.5200	U	1.00	73.8	N	P
Silver	75-125	4.7980		1.0010		5.00	75.9		P

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

WL00001TPA

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

Matrix (soil/water) : SOIL__ Level (low/med): LOW___

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Arsenic		17.96		3.70	U	20.0	89.8		P
Barium		2132.00		1011.00		2000.0	56.0		P
Cadmium									NR
Chromium		290.80		90.43		180.0	111.3		P
Lead									NR
Mercury									NR
Selenium		7.50		5.20	U	10.0	75.0		P
Silver									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

WL00001TPD

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: 100.0 % Solids for Duplicate: _100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Arsenic		0.3700	U	0.3700	U			P
Barium		101.1000		13.1900		153.8	*	P
Cadmium	0.5000	0.6128		0.4239	B	36.4		P
Chromium		9.0430		6.4890		32.9	*	P
Lead		182.4000		135.8000		29.3	*	P
Mercury		0.0500	U	0.0500	U			CV
Selenium		0.5200	U	0.5200	U			P
Silver	0.5000	1.0010		0.7796		24.9		P

7

LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

Solid LCS Source: EPA-LV_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Arsenic				163.0	140.6		102.0	225.0	86.3
Barium				195.0	176.9		128.0	261.0	90.7
Cadmium				114.0	103.3		84.9	142.0	90.6
Chromium				175.0	157.7		121.0	229.0	90.1
Lead				66.0	61.3		44.7	87.3	92.9
Mercury									
Selenium				123.0	109.5		91.4	155.0	89.0
Silver				57.2	52.5		40.8	73.5	91.8

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

Solid LCS Source: EPA-LV_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Arsenic									
Barium									
Cadmium									
Chromium									
Lead									
Mercury				1.7	1.8		1.0	2.6	105.9
Selenium									
Silver									

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

Initial Calibration Source: EPA-LV_____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Arsenic	101.8	91.73	90.1	1000.0	978.20	97.8	951.30	95.1	P
Barium	2009.0	2040.00	101.5	1000.0	1009.00	100.9	984.90	98.5	P
Cadmium	510.0	526.30	103.2	1000.0	1029.00	102.9	1003.00	100.3	P
Chromium	471.0	501.20	106.4	1000.0	1027.00	102.7	1003.00	100.3	P
Lead	101.8	102.90	101.1	1000.0	1055.00	105.5	1028.00	102.8	P
Mercury	4.1	3.97	96.8	5.0	5.14	102.8	5.43	108.6	CV
Selenium	101.4	99.64	98.3	1000.0	1074.00	107.4	1049.00	104.9	P
Silver	487.0	494.90	101.6	100.0	99.29	99.3	99.46	99.5	P

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

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

Initial Calibration Source: EPA-LV_____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Arsenic				1000.0	949.50	94.9	966.60	96.7	P
Barium				1000.0	988.90	98.9	1011.00	101.1	P
Cadmium				1000.0	1007.00	100.7	1027.00	102.7	P
Chromium				1000.0	1000.00	100.0	1024.00	102.4	P
Lead				1000.0	1029.00	102.9	1051.00	105.1	P
Mercury				5.0	5.70	114.0	5.67	113.4	CV
Selenium				1000.0	1044.00	104.4	1071.00	107.1	P
Silver				100.0	98.96	99.0	99.83	99.8	P

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

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

Initial Calibration Source: EPA-LV_____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Arsenic				1000.0	970.40	97.0			P
Barium				1000.0	1014.00	101.4			P
Cadmium				1000.0	1025.00	102.5			P
Chromium				1000.0	1021.00	102.1			P
Lead				1000.0	1047.00	104.7			P
Mercury									NR
Selenium				1000.0	1074.00	107.4			P
Silver				100.0	99.70	99.7			P

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

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

AA CRDL Standard Source: SPEX_____

ICP CRDL Standard Source: LRS_____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
					Initial		Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				10.0	11.06	110.6		
Barium				10.0	10.05	100.5		
Cadmium				5.0	5.56	111.2		
Chromium				5.0	5.18	103.6		
Lead				3.0	3.14	104.7		
Mercury	0.2	0.22	110.0					
Selenium				5.0	5.04	100.8		
Silver				5.0	4.81	96.2		

U.S. EPA - CLP

3
BLANKS

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25101_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or 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
Arsenic			3.7	U	4.3	B					P
Barium			0.6	U	0.6	U					P
Cadmium			0.3	U	0.3	U					P
Chromium			0.7	U	0.7	U					P
Lead			1.6	U	1.6	U					P
Mercury			0.1	U							CV
Selenium			5.2	U	5.2	U					P
Silver			0.6	U	0.6	U					P

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No: _____ SDG No.: 25101_

ICP ID Number: ICP3_____ ICS Source: ICF_____

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
Arsenic	0	100	4	96.6	96.6	1	99.6	99.6
Barium	0	500	3	534.6	106.9	3	527.6	105.5
Cadmium	0	1000	16	1005.0	100.5	15	990.7	99.1
Chromium	21	500	14	516.4	103.3	13	509.1	101.8
Lead	0	50	-5	48.2	96.4	-1	46.7	93.4
Mercury								
Selenium	0	50	-5	41.1	82.2	1	51.6	103.2
Silver	0	200	-1	199.6	99.8	-1	198.3	99.1

CompuChem
A Division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

98 25142
Dalton
Bldg 50
oil

October 9, 1998

Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

Dear Mr. Vogel:

We at CompuChem are pleased to provide our report for the analysis you requested. Data for the following samples are enclosed:

Client ID Number	CompuChem ID Number	Analysis Code	Case Number	Description of Work Requested
WL00001	912839	1317	33864. 25101	Corrosivity by pH
		1254		Ignitability
		1316		Reactive Cyanide
		1316		Reactive Sulfide
		4003		Total Organic Halide in Soil

Thank you for selecting CompuChem Environmental for your sample analysis. If you have any questions concerning this report or the analytical methods employed, please contact your Sales Representative at 919-379-4100.

Sincerely,

Diane Ellmore

Project Manager

ANALYTICAL REPORT OF DATA - CASE # 33864. 25101

SUBMITTED TO:
Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

LABORATORY CHRONICLE - CORROSIVITY BY PH ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	WL00001	912839	10/03/98	10/07/98

ANALYTICAL REPORT OF DATA - CASE # 33864. 25101

SUBMITTED TO:
Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

LABORATORY CHRONICLE - IGNITABILITY ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	WL00001	912839	10/03/98	10/07/98

ANALYTICAL REPORT OF DATA - CASE # 33864. 25101

SUBMITTED TO:
Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

LABORATORY CHRONICLE - REACTIVE CYANIDE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE EXTRACTION COMPLETED	DATE ANALYSIS COMPLETED
1.	WL00001	912839	10/03/98	10/08/98	10/08/98

ANALYTICAL REPORT OF DATA - CASE # 33864. 25101

SUBMITTED TO:
Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

LABORATORY CHRONICLE - REACTIVE SULFIDE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE EXTRACTION COMPLETED	DATE ANALYSIS COMPLETED
1.	WL00001	912839	10/03/98	10/08/98	10/08/98

ANALYTICAL REPORT OF DATA - CASE # 33864. 25101

SUBMITTED TO:
Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

LABORATORY CHRONICLE - TOTAL ORGANIC HALIDE IN SOIL ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE EXTRACTION COMPLETED	DATE ANALYSIS COMPLETED
1.	WL00001	912839	10/03/98	10/09/98	10/09/98

CORROSIVITY BY PH ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (units)	REPORTING LIMIT (units)
1.	WL00001	912839	6.98	0.000

BRL = BELOW REPORTING LIMIT
NWR = NOT WITHIN RANGE

Reviewed by/ID#: S. Zuber, 2026 Date: 10/9/98

IGNITABILITY ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (F)	REPORTING LIMIT (F)
1.	WL00001	912839	NWR	140

BRL = BELOW REPORTING LIMIT
NWR = NOT WITHIN RANGE

Reviewed by/ID#: S. Sulum / 2320 Date: 10/9/98

REACTIVE CYANIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (mg/kg)
1.	WL00001	912839	BRL	125

BRL = BELOW REPORTING LIMIT
NWR = NOT WITHIN RANGE

Reviewed by/ID#: S. Bulen / 2326 Date: 10/9/98

REACTIVE SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (mg/kg)
1.	WL00001	912839	BRL	125

BRL = BELOW REPORTING LIMIT
NWR = NOT WITHIN RANGE

Reviewed by/ID#: S Quiem / 2326 Date: 10/9/98

TOTAL ORGANIC HALIDE IN SOIL ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (mg/kg)
1.	WL00001	912839	BRL	200

BRL = BELOW REPORTING LIMIT
NWR = NOT WITHIN RANGE

Reviewed by/ID#: D. Lim / 10326 Date: 10/9/98

CORROSIVITY BY PH ANALYSIS

QUALITY CONTROL REPORT

CASE: 33864. 25101
MATRIX: OIL

Analyst:2326
Date Analyzed 10/07/98

BLANK SPIKE (BS) COMPUCHEM #: LCS

SPIKE ADDED (units)	BS CONC. (units)	BS % RECOVERY
9.070	9.041	100.0

ORIG. SAMPLE COMPUCHEM #: 912839
DUPLICATE (DUP.) COMPUCHEM #: 912850

SAMPLE CONC. (units)	DUP. CONC. (units)	RPD
6.980	6.999	0.0000

The reporting limit for Corrosivity by pH is 0 units

BRL = BELOW REPORTING LIMIT
RPD = RELATIVE PERCENT DIFFERENCE
NWR = NOT WITHIN RANGE

IGNITABILITY ANALYSIS

QUALITY CONTROL REPORT

CASE: 33864. 25101
MATRIX: OIL

Analyst:2326
Date Analyzed 10/07/98

BLANK SPIKE (BS) COMPUCHEM #: 912851

SPIKE ADDED (F)	BS CONC. (F)
81 +\- 2	80.78

ORIG. SAMPLE COMPUCHEM #: 912839
DUPLICATE (DUP.) COMPUCHEM #: 912852

SAMPLE CONC. (F)	DUP. CONC. (F)	RPD
NWR	NWR	N/A

The reporting limit for Ignitability is 140 F

BRL = BELOW REPORTING LIMIT
RPD = RELATIVE PERCENT DIFFERENCE
NWR = NOT WITHIN RANGE

REACTIVE CYANIDE ANALYSIS

QUALITY CONTROL REPORT

CASE: 33864. 25101
MATRIX: OIL

Analyst:2059
Date Analyzed 10/08/98

BLANK SPIKE (BS) COMPUCHEM #: 912853

SPIKE ADDED (mg/kg)	BS CONC. (mg/kg)	BS % RECOVERY
40.00	11.99	30.00

ORIG. SAMPLE COMPUCHEM #: 912839
DUPLICATE (DUP.) COMPUCHEM #: 912854

SAMPLE CONC. (mg/kg)	DUP. CONC. (mg/kg)	RPD
BRL	BRL	0.0000

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/kg)
PBW	METHOD BLANK	BRL

The reporting limit for Reactive Cyanide is 125 mg/kg

BRL = BELOW REPORTING LIMIT
RPD = RELATIVE PERCENT DIFFERENCE
NWR = NOT WITHIN RANGE

REACTIVE SULFIDE ANALYSIS

QUALITY CONTROL REPORT

CASE: 33864. 25101
MATRIX: OIL

Analyst:2059
Date Analyzed 10/08/98

BLANK SPIKE (BS) COMPUCHEM #: 912853

SPIKE ADDED (mg/kg)	BS CONC. (mg/kg)	BS % RECOVERY
250.0	444.8	177.9

ORIG. SAMPLE COMPUCHEM #: 912839
DUPLICATE (DUP.) COMPUCHEM #: 912854

SAMPLE CONC. (mg/kg)	DUP. CONC. (mg/kg)	RPD
BRL	BRL	0.0000

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/kg)
PBW	METHOD BLANK	BRL

The reporting limit for Reactive Sulfide is 125 mg/kg

BRL = BELOW REPORTING LIMIT
RPD = RELATIVE PERCENT DIFFERENCE
NWR = NOT WITHIN RANGE

TOTAL ORGANIC HALIDE IN SOIL ANALYSIS

QUALITY CONTROL REPORT

CASE: 33864. 25101
MATRIX: OIL

Analyst:2326
Date Analyzed 10/09/98

BLANK SPIKE (BS) COMPUCHEM #: LCS

SPIKE ADDED (mg/kg)	BS CONC. (mg/kg)	BS % RECOVERY
5.000	5.850	117.0

ORIG. SAMPLE COMPUCHEM #: 912839
DUPLICATE(DUP.) COMPUCHEM #: 912848

SAMPLE CONC. (mg/kg)	DUP. CONC. (mg/kg)	RPD
BRL	BRL	0.0000

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/kg)
PBW	METHOD BLANK	BRL

The reporting limit for Total Organic Halide in Soil is 200 mg/kg

BRL = BELOW REPORTING LIMIT
RPD = RELATIVE PERCENT DIFFERENCE
NWR = NOT WITHIN RANGE

Received on: 10-3-98 & 10-5-98 # of COC's 2 PPS / RFA # 251 & 252 Page 1 of 1

Delivered by: Fed Ex Lab Instructions: TCL VOA, SV, PCB / TCLP Metals / Corr / Ign / React / TOX

Freight # 806179983707, 806179983692

Subcontract Y / N

TAT: Verbal _____ Hardcopy 10 day

r # 338164

ect: Dayton Thermal

te # 98-7078

ount # 501112

SDG	REQ	SAMPLE ID	CCN	AMOUNT / CONTAINER	PARAMETER	ANALYSIS CODE	LINE ITEM	SAMPLE DATE	MX	pH
5104	2	T093098	912811	2-60ml	VOA	1356	1	10-2-98	NA	NA
5102	3	WS00001	912814	2-4oz; 3-8oz	Corr. Ign. React. VSV, RCRA Metals, PCB, TOX	1317, 1254, 1316, 1357, 798, 2020, 749, 4003	21, 24, 28, 30, 3, 7, 11, 18, 32			
5103	4	↓	912834	1-8oz	TCLP metals	1816, 1143	13, 14			
5101	5	WL00001	912839	2-60ml; 10AL; 1-500ml PL	Corr. Ign, React. VSV, RCRA Met. PCB, TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002	24, 26, 28, 5, 9, 16, 20		XX	NA
5104	6	WL00002	913008	6-AL; 1-500ml PL	Corr / Ign / React. VSV/RCRA/PCB/TOX/	1317, 1254, 1316, 797, 2019, 748, 4002,	24, 26, 28, 5, 9, 16, 20		NA	NA
↓	7	WL00003	913017	2-60ml; 1-500ml PL 9AL	Corr / Ign / React VSV/RCRA/PCB/TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002,	24, 26, 28, 1, 5, 7, 16, 20,		NA	NA/<2

D Ellmore 10/5/98

d In By: Marlene A. Amijo / Diane Ellmore

Order Entered By: Marlene A. Amijo / Diane Ellmore

de samples checked for sulfide and chlorine Y / NA

Received in good condition Y / N ID WL00003 – 4-(AL) broken

in Blank(s): Counter / Page / CCN's

CHRYSLER CORPORATION

Chain-of-Custody

01503 A

CompuChem 501 Madison Avenue Cary, NC 27513 Phone Number: 1-800-833-5097 Fax Number: (919) 379-4050	Project Name: Dayton Thermal Products Site Location: 1600 Webster St Dayton OH 45401 Site Code: SC001 RFA Number: YGQF9800251 and 252 Chrysler PM: Gary Stankevik	Consultant: Leggette, Brashears & Graham, Inc. Address: 1210 West County Road E St. Paul MN 55112 Consultant PM: Ken Vogel Phone: 651 490-1405 Fax: 651 490-1006

Turn-around Time Request: ~~24 calendar hrs.~~ ~~48 calendar hrs.~~ ~~72 hrs.~~ ~~28 days~~ 10 Days

Data Package Deliverables: (circle) Chrysler Level 1 / Chrysler Level 2 / Other (specify):

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes: S - Soil; SW - Surface Water; GW - Groundwater; A - Air; Sed. - Sediment; O - Other (specify) Sump Liquid, Rinse water

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	Ch. 7 Reactivity Aqueous	Ch. 7 Reactivity Solid	Lab Use Only: Volatiles pH <2	Metals pH < 2	Cyanide pH > 12	Other ___	Remarks
WS00001	10-2-98	11:00	C	S			X					Solid Waste
WL00001	↓	12:00	G	O		X						Sump Liquid
WL00002		12:50	G	O		X						Rinse Water

See C-O-C 1502 for additional analyses.

and 8061 7983707 arrive @ 11:57

Sampler(s): Cindy Vanderhorst LJB	Bottles Relinquished under Airbill No.		Samples Relinquished under Airbill No. 8061 7983672		Temperature (corrected) 3.9 C
	Relinquished by: Cindy Vanderhorst	Date: 10-2-98	Time: 16:30	Received by:	Date: / Time: / Custody Seal Intact? Yes No
Client ID # 48+74	Relinquished by:	Date:	Time:	Received by:	Date: / Time: / Custody Seal Intact? Yes No
Is sampling complete? Yes No	Relinquished by:	Date:	Time:	Received for Laboratory by: Melinda J. Smith	Date: 10/3/98 Time: 11:45 Custody Seal Intact? Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Sample WL 00001 placed on hold & placed in walk in cooler because of breakage

Chain-of-Custody

01502 A

CORPORATION

CompuChem
501 Madison Avenue
Cary, NC 27513
Phone Number: 1-800-833-5097
Fax Number: (919) 379-4050

Project Name: Payton Thermal Products
Site Location: 1600 Webster St. Dayton OH 45401
Site Code: 3C.001
RFA Number: 4GOP9800251 and 252
Chrysler PM: Gary Stanczak

Consultant: Leggette, Brashears & Graham, Inc
Address: 1210 West County Road E Suite 700
Saint Paul MN 55112
Consultant PM: Ken Vogel
Phone: 651 490 1405 Fax: 651 490-1006

Turn-around Time Request:
24 calendar hrs
48 calendar hrs
72 hrs
28 days
10 days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify) Sump liquid, Rinsewater

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	8260 VOCs	8270 A SVOCs	RCRA Metals 6/7000	TCLP Metals 6/7000	8082C PCBs	9030A TCH Aqueous	9020A TCH Solid	Ch. 7 Corrosivity	Ch. 7 Ignitability	Volatiles pH < 2	Metals pH < 2	Cyanide pH > 12	Other	Remarks
WS00001	10-2-98	11:00	C	S	6	X	X	X	X	X		X	X	X					Solid Waste
WL00001	↓	12:00	G	O	13	X	X	X		X	X		X	X					Sump Liquid
WL00002	↓	12:50	G	O	13	X	X	X		X	X		X	X					Rinse water (Recvd 2 vials broken & all broken up)
T093098			-	O		X													Trip blank

See C-O-C 1503 for additional analyses.

Fed Ex 806 7998 3701

Sampler(s): Cindy Vandehest LJB

Sampler ID # 48 + 74

VOA sampling complete? Yes No

Bottles Relinquished under Airbill No.

Samples Relinquished under Airbill No. 806 7998 369.2 Opened @ 11:54

Temperature (corrected) 3.9 C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Cindy Vandehest	10-2-98	1630				Yes No
						Yes No
			Received for Laboratory by: Marcenia J. Smith	10-3-98	11:45	Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Spoke w/ Ken Vogel on 10/5/98 regarding sample ID WL00001 Sample is biphasic. Sample will be split by layer, top phase will be labeled WL00001TP, bottom phase will be labeled WL00001BP. Also told Ken about broken bottles (no VOCs for unsat) 10/5/98

Revision No. 1

[illegible] 2 placed on hold & placed in [illegible] cooler because of breakage

COMPUCHEM
a division of Liberty Analytical
501 Madison Avenue
Cary, NC 27513

October 5, 1998

To: Kenny
Mark
Ricky

From: Diane

Re: Case 33864 SDG 25101 & 25104

Sample WL00001 is biphasic. We received 2- 60 ml vials for this sample. The top phase (TP) is CCN 912839 (SDG 25101). This sample matrix is 'XX' (oil). The bottom phase (BP) is CCN 913017 (SDG 25104). This sample matrix is water. Both CCN's appear on the bottles. Please take care in analyzing the correct phase with the correct CCN.

COMPUCHEM
a division of Liberty Analytical Corp.

OCT 16 1998

98-25142
Dayton
Bldg 50
VOCs

ENTERED IN DATABASE
BY/DATE DOO 10/26/98
CHECKED BY CVS
DATE 10/26/98

15/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

Subject: Report of Data - Account Number# 501112 Order# 33864

ATTN: MR. KEN VOGEL

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers 3 sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services please contact your representative at 1-800-833-5097.

Sincerely,

Diane Ellmore

CompuChem Environmental
a division of Liberty Analytical

Attachment

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel. 919-379-4100 ■ Fax. 919-379-4050

COMPUCHEM
a division of Liberty Analytical Corp.

15/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

ACCOUNT #: 501112

CC#	SAMPLE-ID	RECEIPT DATE
912811	T093098	10/03/98
913008	WL00002	10/05/98
913017	WL00001BP	10/05/98

TOTAL NUMBER OF SAMPLES = 3

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel 919-379-4100 ■ Fax 919-379-4050

COMPUCHEM
A division of Liberty Analytical Corporation
501 MADISON AVE.
CARY, NC 27513
(919) 379-4100

SDG NARRATIVE

CASE #33864
SDG #25104
PROTOCOL : SW-846
METHOD : 8260

SAMPLES: WS00001BP, T093098

Attached are pertinent analytical data dealing with the analyses of two (2) water samples associated with Case #33864, SDG #25104. The samples were received intact on October 3 and 5, 1998 in properly sealed shipping containers with the corresponding chains-of-custody. The samples were logged into the CompuChem Laboratory Management system and scheduled for the analyses of the volatile fractions by Method 8260.

VOLATILE
The volatile fractions were analyzed within the required holding time. Three target analytes were detected with concentrations above the reporting limits in sample WL00001BP. These analytes were trichloroethene, tetrachloroethene and cis-1,2-dichloroethene.

Sample WL00001BP was initially analyzed at a 1 in 2500 dilution due to the presence of high levels of target analytes. In this analysis, the amounts of two of the analytes exceeded the instrument's upper analytical range as defined by the highest level standard in the Initial Calibration. The sample was reanalyzed at a 1 in 6250 dilution. In this analysis, the amounts of the two analytes again exceeded the upper analytical range. The variations in analyte concentration amounts have been attributed to the inhomogeneity of the sample matrix. The two diluted analyses of the sample have been reported.

QC SUMMARY
The surrogates met recovery criteria for the volatile samples. The internal standards met area responses and retention time criteria.

The MS and MSD were analyzed at 1 in 6250 dilutions based on the results from the analysis of the original sample used. The duplicate matrix spikes met accuracy and precision criteria, with some exceptions. The recoveries of tetrachloroethene and trichloroethene failed acceptance criteria in the MS and MSD. The failing recoveries have been attributed to the presence of high levels of the analytes in the original sample. The relative percent difference value for 2-butanone also failed acceptance criteria in the comparison of the duplicate matrix spikes. The associated Laboratory Control Samples (LCS) met accuracy criteria.

The associated blanks, Initial Calibrations and Continuing Calibrations met Quality Control criteria.

Release of the data contained in the hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature:

Patricia B. Hopkins
Final Technical Reviewer
14 October 1998

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL) (or Reporting Limit) will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicates the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

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

S : This flag indicates that an analyte was detected by a single column GC analysis but the result was below the Reporting Limit. This flag is only used when clients request a second (confirmation) column analysis after detecting an analyte above the Reporting Limit in the initial, single column analysis. This flag alerts the data user that only an analyte was detected below the Reporting Limit and a second (confirmation) analysis was not performed.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

T093098

Project: RFA251 Date Sampled: 10/02/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 912811

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CN012811B54.D

Level: (low/med) LOW Date Received: 10/03/98

% Moisture: not dec. _____ Date Analyzed: 10/12/98

GC Column:SP624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	0.5		U
75-01-4	Vinyl Chloride	1		U
75-00-3	Chloroethane	0.5		U
75-09-2	Methylene Chloride	15	3	JB
75-35-4	1,1-Dichloroethene	0.8		U
75-34-3	1,1-Dichloroethane	0.5		U
67-66-3	Chloroform	0.8		U
107-06-2	1,2-Dichloroethane	0.8		U
71-55-6	1,1,1-Trichloroethane	0.8		U
56-23-5	Carbon Tetrachloride	1		U
75-27-4	Bromodichloromethane	0.5		U
10061-01-5	cis-1,3-Dichloropropene	0.5		U
79-01-6	Trichloroethene	0.8		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.8		U
71-43-2	Benzene	0.8		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
75-25-2	Bromoform	0.5		U
127-18-4	Tetrachloroethene	0.8		U
79-34-5	1,1,2,2-Tetrachloroethane	0.5		U
108-88-3	Toluene	0.8		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
100-42-5	Styrene	0.5		U
541-73-1	1,3-Dichlorobenzene	0.5		U
106-46-7	1,4-Dichlorobenzene	0.5		U
95-50-1	1,2-Dichlorobenzene	0.5		U
78-87-5	1,2-Dichloropropane	0.8		U
74-87-3	Chloromethane	1		U
75-15-0	Carbon disulfide	0.5		U
108-05-4	Vinyl acetate	0.5		U
67-64-1	Acetone	3	2	JB
108-10-1	4-Methyl-2-pentanone	2		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

T093098

Project: RFA251 Date Sampled: 10/02/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 912811

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CN012811B54.D

Level: (low/med) LOW Date Received: 10/03/98

% Moisture: not dec. _____ Date Analyzed: 10/12/98

GC Column:SP624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
591-78-6	2-hexanone	2		U
78-93-3	2-butanone	3		U
110-75-8	2-chloroethyl vinyl ether	10		U
156-60-5	trans-1,2-Dichloroethene	0.8		U
156-59-2	cis-1,2-Dichloroethene	0.5		U
1330-20-7	Xylene (total)	0.5		U

FORM I VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001BP

Project: RFA251 Date Sampled: 10/~~03~~ 02/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 912839

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CN013017B56.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 2500.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	1200		U
75-01-4	Vinyl Chloride	2500		U
75-00-3	Chloroethane	1200		U
75-09-2	Methylene Chloride	25000	1900	BJ
75-35-4	1,1-Dichloroethene	1900		U
75-34-3	1,1-Dichloroethane	1200		U
67-66-3	Chloroform	1900		U
107-06-2	1,2-Dichloroethane	1900		U
71-55-6	1,1,1-Trichloroethane	1900		U
56-23-5	Carbon Tetrachloride	2500		U
75-27-4	Bromodichloromethane	1200		U
10061-01-5	cis-1,3-Dichloropropene	1200		U
79-01-6	Trichloroethene	1900	110000	E
124-48-1	Dibromochloromethane	1200		U
79-00-5	1,1,2-Trichloroethane	1900		U
71-43-2	Benzene	1900		U
10061-02-6	trans-1,3-Dichloropropene	1900		U
75-25-2	Bromoform	1200		U
127-18-4	Tetrachloroethene	1900	73000	E
79-34-5	1,1,2,2-Tetrachloroethane	1200		U
108-88-3	Toluene	1900	640	J
108-90-7	Chlorobenzene	1200		U
100-41-4	Ethylbenzene	1200		U
100-42-5	Styrene	1200		U
541-73-1	1,3-Dichlorobenzene	1200		U
106-46-7	1,4-Dichlorobenzene	1200		U
95-50-1	1,2-Dichlorobenzene	1200		U
78-87-5	1,2-Dichloropropane	1900		U
74-87-3	Chloromethane	2500		U
75-15-0	Carbon disulfide	1200		U
108-05-4	Vinyl acetate	1200		U
67-64-1	Acetone	12000	3900	BJ
108-10-1	4-Methyl-2-pentanone	5000		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001BP

Project: RFA251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 912839

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CN013017B56.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 2500.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
591-78-6	2-hexanone	5000		U
78-93-3	2-butanone	7500		U
110-75-8	2-chloroethyl vinyl ether	25000		U
156-60-5	trans-1,2-Dichloroethene	1900		U
156-59-2	cis-1,2-Dichloroethene	1200	3400	
1330-20-7	Xylene (total)	1200		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001BPDL

Project: RFA251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913017

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CR013017B56.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 6250.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	3100		U
75-01-4	Vinyl Chloride	6200		U
75-00-3	Chloroethane	3100		U
75-09-2	Methylene Chloride	62000	3700	DBJ
75-35-4	1,1-Dichloroethene	4700		U
75-34-3	1,1-Dichloroethane	3100		U
67-66-3	Chloroform	4700		U
107-06-2	1,2-Dichloroethane	4700		U
71-55-6	1,1,1-Trichloroethane	4700		U
56-23-5	Carbon Tetrachloride	6200		U
75-27-4	Bromodichloromethane	3100		U
10061-01-5	cis-1,3-Dichloropropene	3100		U
79-01-6	Trichloroethene	4700	250000	DE
124-48-1	Dibromochloromethane	3100		U
79-00-5	1,1,2-Trichloroethane	4700		U
71-43-2	Benzene	4700		U
10061-02-6	trans-1,3-Dichloropropene	4700		U
75-25-2	Bromoform	3100		U
127-18-4	Tetrachloroethene	4700	580000	DE
79-34-5	1,1,2,2-Tetrachloroethane	3100		U
108-88-3	Toluene	4700		U
108-90-7	Chlorobenzene	3100		U
100-41-4	Ethylbenzene	3100		U
100-42-5	Styrene	3100		U
541-73-1	1,3-Dichlorobenzene	3100		U
106-46-7	1,4-Dichlorobenzene	3100		U
95-50-1	1,2-Dichlorobenzene	3100		U
78-87-5	1,2-Dichloropropane	4700		U
74-87-3	Chloromethane	6200		U
75-15-0	Carbon disulfide	3100		U
108-05-4	Vinyl acetate	3100		U
67-64-1	Acetone	31000		U
108-10-1	4-Methyl-2-pentanone	12000		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001BPDL

Project: RFA251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913017

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CR013017B56.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 6250.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
591-78-6	2-hexanone	12000		U
78-93-3	2-butanone	19000		U
110-75-8	2-chloroethyl vinyl ether	62000		U
156-60-5	trans-1,2-Dichloroethene	4700		U
156-59-2	cis-1,2-Dichloroethene	3100	2000	DJ
1330-20-7	Xylene (total)	3100		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001BPDLMS

Project: RFA251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913025

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CN013025B56.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 6250.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	3100	32000	
75-01-4	Vinyl Chloride	6200	31000	
75-00-3	Chloroethane	3100	30000	
75-09-2	Methylene Chloride	62000	30000	BJ
75-35-4	1,1-Dichloroethene	4700	31000	
75-34-3	1,1-Dichloroethane	3100	32000	
67-66-3	Chloroform	4700	32000	
107-06-2	1,2-Dichloroethane	4700	34000	
71-55-6	1,1,1-Trichloroethane	4700	34000	
56-23-5	Carbon Tetrachloride	6200	36000	
75-27-4	Bromodichloromethane	3100	35000	
10061-01-5	cis-1,3-Dichloropropene	3100	32000	
79-01-6	Trichloroethene	4700	200000	E
124-48-1	Dibromochloromethane	3100	33000	
79-00-5	1,1,2-Trichloroethane	4700	30000	
71-43-2	Benzene	4700	31000	
10061-02-6	trans-1,3-Dichloropropene	4700	28000	
75-25-2	Bromoform	3100	30000	
127-18-4	Tetrachloroethene	4700	240000	E
79-34-5	1,1,2,2-Tetrachloroethane	3100	27000	
108-88-3	Toluene	4700	36000	
108-90-7	Chlorobenzene	3100	34000	
100-41-4	Ethylbenzene	3100	33000	
100-42-5	Styrene	3100	32000	
541-73-1	1,3-Dichlorobenzene	3100	32000	
106-46-7	1,4-Dichlorobenzene	3100	32000	
95-50-1	1,2-Dichlorobenzene	3100	45000	
78-87-5	1,2-Dichloropropane	4700	34000	
74-87-3	Chloromethane	6200	31000	
75-15-0	Carbon disulfide	3100	29000	
108-05-4	Vinyl acetate	3100	52000	
67-64-1	Acetone	31000	120000	B
108-10-1	4-Methyl-2-pentanone	12000	150000	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001BPDLM

Project: RFA251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913025

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CN013025B56.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 6250.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
591-78-6	2-hexanone	12000	150000	
78-93-3	2-butanone	19000	110000	
110-75-8	2-chloroethyl vinyl ether	62000	320000	
156-60-5	trans-1,2-Dichloroethene	4700	32000	
156-59-2	cis-1,2-Dichloroethene	3100	34000	
1330-20-7	Xylene (total)	3100	120000	

FORM I VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001BPDLMSD

Project: RFA251 | Date Sampled: 10/03/98

Lab Code: COMPU | Case No.: 33864 | SAS No.: | SDG No.: 25104

Matrix: (soil/water) WATER | Lab Sample ID: 912026

Sample wt/vol: 25.0 (g/mL) ML | Lab File ID: CN013026B56.D

Level: (low/med) LOW | Date Received: 10/05/98

% Moisture: not dec. _____ | Date Analyzed: 10/12/98

GC Column:DB624 ID: 0.53 (mm) | Dilution Factor: 6250.0

Soil Extract Volume: _____(uL) | Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	3100	31000	
75-01-4	Vinyl Chloride	6200	31000	
75-00-3	Chloroethane	3100	31000	
75-09-2	Methylene Chloride	62000	26000	J
75-35-4	1,1-Dichloroethene	4700	28000	
75-34-3	1,1-Dichloroethane	3100	29000	
67-66-3	Chloroform	4700	30000	
107-06-2	1,2-Dichloroethane	4700	35000	
71-55-6	1,1,1-Trichloroethane	4700	31000	
56-23-5	Carbon Tetrachloride	6200	32000	
75-27-4	Bromodichloromethane	3100	35000	
10061-01-5	cis-1,3-Dichloropropene	3100	33000	
79-01-6	Trichloroethene	4700	200000	E
124-48-1	Dibromochloromethane	3100	35000	
79-00-5	1,1,2-Trichloroethane	4700	31000	
71-43-2	Benzene	4700	29000	
10061-02-6	trans-1,3-Dichloropropene	4700	29000	
75-25-2	Bromoform	3100	33000	
127-18-4	Tetrachloroethene	4700	300000	E
79-34-5	1,1,2,2-Tetrachloroethane	3100	30000	
108-88-3	Toluene	4700	35000	
108-90-7	Chlorobenzene	3100	32000	
100-41-4	Ethylbenzene	3100	31000	
100-42-5	Styrene	3100	31000	
541-73-1	1,3-Dichlorobenzene	3100	32000	
106-46-7	1,4-Dichlorobenzene	3100	32000	
95-50-1	1,2-Dichlorobenzene	3100	34000	
78-87-5	1,2-Dichloropropane	4700	34000	
74-87-3	Chloromethane	6200	29000	
75-15-0	Carbon disulfide	3100	27000	
108-05-4	Vinyl acetate	3100	40000	
67-64-1	Acetone	31000	150000	
108-10-1	4-Methyl-2-pentanone	12000	180000	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001BPDLM

Project: RFA251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 912026

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CN013026B56.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: not dec. _____ Date Analyzed: 10/12/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 6250.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
591-78-6	2-hexanone	12000	180000	
78-93-3	2-butanone	19000	140000	
110-75-8	2-chloroethyl vinyl ether	62000	340000	
156-60-5	trans-1,2-Dichloroethene	4700	27000	
156-59-2	cis-1,2-Dichloroethene	3100	32000	
1330-20-7	Xylene (total)	3100	110000	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VLCS04

Project: RFA251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913433

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CR013433B54.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:SP624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	0.5	5	
75-01-4	Vinyl Chloride	1	5	
75-00-3	Chloroethane	0.5	5	
75-09-2	Methylene Chloride	15	5	JB
75-35-4	1,1-Dichloroethene	0.8	5	
75-34-3	1,1-Dichloroethane	0.5	5	
67-66-3	Chloroform	0.8	5	
107-06-2	1,2-Dichloroethane	0.8	5	
71-55-6	1,1,1-Trichloroethane	0.8	5	
56-23-5	Carbon Tetrachloride	1	5	
75-27-4	Bromodichloromethane	0.5	5	
10061-01-5	cis-1,3-Dichloropropene	0.5	5	
79-01-6	Trichloroethene	0.8	5	
124-48-1	Dibromochloromethane	0.5	5	
79-00-5	1,1,2-Trichloroethane	0.8	5	
71-43-2	Benzene	0.8	5	
10061-02-6	trans-1,3-Dichloropropene	0.5	5	
75-25-2	Bromoform	0.5	5	
127-18-4	Tetrachloroethene	0.8	5	
79-34-5	1,1,2,2-Tetrachloroethane	0.5	5	
108-88-3	Toluene	0.8	5	
108-90-7	Chlorobenzene	0.5	5	
100-41-4	Ethylbenzene	0.5	5	
100-42-5	Styrene	0.5	5	
541-73-1	1,3-Dichlorobenzene	0.5	5	
106-46-7	1,4-Dichlorobenzene	0.5	4	
95-50-1	1,2-Dichlorobenzene	0.5	5	
78-87-5	1,2-Dichloropropane	0.8	5	
74-87-3	Chloromethane	1	5	
75-15-0	Carbon disulfide	0.5	5	
108-05-4	Vinyl acetate	0.5	10	
67-64-1	Acetone	3	26	B
108-10-1	4-Methyl-2-pentanone	2	29	

FORM I VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VLCS04

Project: RFA251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913433

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CR013433B54.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:SP624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
591-78-6	2-hexanone	2	28	
78-93-3	2-butanone	3	25	
110-75-8	2-chloroethyl vinyl ether	10	52	
156-60-5	trans-1,2-Dichloroethene	0.8	5	
156-59-2	cis-1,2-Dichloroethene	0.5	5	
1330-20-7	Xylene (total)	0.5	16	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VLCS76

Project: RFA251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913879

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CN013879A56.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	0.5	5	
75-01-4	Vinyl Chloride	1	5	
75-00-3	Chloroethane	0.5	5	
75-09-2	Methylene Chloride	10	5	BJ
75-35-4	1,1-Dichloroethene	0.8	5	
75-34-3	1,1-Dichloroethane	0.5	5	
67-66-3	Chloroform	0.8	6	
107-06-2	1,2-Dichloroethane	0.8	5	
71-55-6	1,1,1-Trichloroethane	0.8	6	
56-23-5	Carbon Tetrachloride	1	6	
75-27-4	Bromodichloromethane	0.5	5	
10061-01-5	cis-1,3-Dichloropropene	0.5	5	
79-01-6	Trichloroethene	0.8	6	
124-48-1	Dibromochloromethane	0.5	5	
79-00-5	1,1,2-Trichloroethane	0.8	5	
71-43-2	Benzene	0.8	5	
10061-02-6	trans-1,3-Dichloropropene	0.8	5	
75-25-2	Bromoform	0.5	5	
127-18-4	Tetrachloroethene	0.8	6	
79-34-5	1,1,2,2-Tetrachloroethane	0.5	5	
108-88-3	Toluene	0.8	5	
108-90-7	Chlorobenzene	0.5	5	
100-41-4	Ethylbenzene	0.5	6	
100-42-5	Styrene	0.5	5	
541-73-1	1,3-Dichlorobenzene	0.5	5	
106-46-7	1,4-Dichlorobenzene	0.5	5	
95-50-1	1,2-Dichlorobenzene	0.5	5	
78-87-5	1,2-Dichloropropane	0.8	5	
74-87-3	Chloromethane	1	5	
75-15-0	Carbon disulfide	0.5	5	
108-05-4	Vinyl acetate	0.5	9	
67-64-1	Acetone	5	25	B
108-10-1	4-Methyl-2-pentanone	2	25	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VLCS76

Project: RFA251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913879

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CN013879A56.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
591-78-6	2-hexanone	2	23	
78-93-3	2-butanone	3	23	
110-75-8	2-chloroethyl vinyl ether	10	49	
156-60-5	trans-1,2-Dichloroethene	0.8	4	
156-59-2	cis-1,2-Dichloroethene	0.5	5	
1330-20-7	Xylene (total)	0.5	19	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLKLE

Project: RFA251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: VBLKLE

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CB981011B54.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:SP624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	0.5		U
75-01-4	Vinyl Chloride	1		U
75-00-3	Chloroethane	0.5		U
75-09-2	Methylene Chloride	15	0.8	J
75-35-4	1,1-Dichloroethene	0.8		U
75-34-3	1,1-Dichloroethane	0.5		U
67-66-3	Chloroform	0.8		U
107-06-2	1,2-Dichloroethane	0.8		U
71-55-6	1,1,1-Trichloroethane	0.8		U
56-23-5	Carbon Tetrachloride	1		U
75-27-4	Bromodichloromethane	0.5		U
10061-01-5	cis-1,3-Dichloropropene	0.5		U
79-01-6	Trichloroethene	0.8		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.8		U
71-43-2	Benzene	0.8		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
75-25-2	Bromoform	0.5		U
127-18-4	Tetrachloroethene	0.8		U
79-34-5	1,1,2,2-Tetrachloroethane	0.5		U
108-88-3	Toluene	0.8		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
100-42-5	Styrene	0.5		U
541-73-1	1,3-Dichlorobenzene	0.5		U
106-46-7	1,4-Dichlorobenzene	0.5		U
95-50-1	1,2-Dichlorobenzene	0.5		U
78-87-5	1,2-Dichloropropane	0.8		U
74-87-3	Chloromethane	1		U
75-15-0	Carbon disulfide	0.5		U
108-05-4	Vinyl acetate	0.5		U
67-64-1	Acetone	3	1	J
108-10-1	4-Methyl-2-pentanone	2		U

FORM I VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLKLE

Project: RFA251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: VBLKLE

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CB981011B54.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:SP624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
591-78-6	2-hexanone	2		U
78-93-3	2-butanone	3		U
110-75-8	2-chloroethyl vinyl ether	10		U
156-60-5	trans-1,2-Dichloroethene	0.8		U
156-59-2	cis-1,2-Dichloroethene	0.5		U
1330-20-7	Xylene (total)	0.5		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLKNC

Project: RFA251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: VBLKNC

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CB981011A56.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
74-83-9	Bromomethane	0.5		U
75-01-4	Vinyl Chloride	1		U
75-00-3	Chloroethane	0.5		U
75-09-2	Methylene Chloride	10	0.6	J
75-35-4	1,1-Dichloroethene	0.8		U
75-34-3	1,1-Dichloroethane	0.5		U
67-66-3	Chloroform	0.8		U
107-06-2	1,2-Dichloroethane	0.8		U
71-55-6	1,1,1-Trichloroethane	0.8		U
56-23-5	Carbon Tetrachloride	1		U
75-27-4	Bromodichloromethane	0.5		U
10061-01-5	cis-1,3-Dichloropropene	0.5		U
79-01-6	Trichloroethene	0.8		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.8		U
71-43-2	Benzene	0.8		U
10061-02-6	trans-1,3-Dichloropropene	0.8		U
75-25-2	Bromoform	0.5		U
127-18-4	Tetrachloroethene	0.8		U
79-34-5	1,1,2,2-Tetrachloroethane	0.5		U
108-88-3	Toluene	0.8		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
100-42-5	Styrene	0.5		U
541-73-1	1,3-Dichlorobenzene	0.5		U
106-46-7	1,4-Dichlorobenzene	0.5		U
95-50-1	1,2-Dichlorobenzene	0.5		U
78-87-5	1,2-Dichloropropane	0.8		U
74-87-3	Chloromethane	1		U
75-15-0	Carbon disulfide	0.5		U
108-05-4	Vinyl acetate	0.5		U
67-64-1	Acetone	5	1	J
108-10-1	4-Methyl-2-pentanone	2		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLKNC

Project: RFA251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: VBLKNC

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: CB981011A56.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 10/11/98

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
591-78-6	2-hexanone	2		U
78-93-3	2-butanone	3		U
110-75-8	2-chloroethyl vinyl ether	10		U
156-60-5	trans-1,2-Dichloroethene	0.8		U
156-59-2	cis-1,2-Dichloroethene	0.5		U
1330-20-7	Xylene (total)	0.5		U

FORM I VOA

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLKLE

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Lab File ID: CB981011B54.D Lab Sample ID: VBLKLE

Date Analyzed: 10/11/98 Time Analyzed: 2216

GC Column:SP624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F50054

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCS04	913433	CR013433B54.D	2313
02	T093098	912811	CN012811B54.D	0350
03				
04				
05				
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLKNC

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Lab File ID: CB981011A56.D Lab Sample ID: VBLKNC

Date Analyzed: 10/11/98 Time Analyzed: 1401

GC Column:DB624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F50056

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCS76	913879	CN013879A56.D	1448
02	WL00001BP	912839	CN013017B56.D	2148
03	WL00001BPDL	913017	CR013017B56.D	2247
04	WL00001BPDLM	913025	CN013025B56.D	2333
05	WL00001BPDLM	912026	CN013026B56.D	0009
06				
07				
08				
09				
10				
11				
12				
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COMMENTS:

FORM IV VOA

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

	SAMPLE NO.	SMC1 (DBF) #	SMC2 (TOL) #	SMC3 (BFB) #	OTHER	TOT OUT
01	T093098	124	107	102		0
02	WL00001BP	118	100	79		0
03	WL00001BPDL	112	97	86		0
04	WL00001BPDLM	101	105	111		0
05	WL00001BPDLM	100	111	122		0
06	VBLKLE	125	100	88		0
07	VBLKNC	120	105	87		0
08	VLCS04	106	107	106		0
09	VLCS76	111	105	109		0
10						
11						
12						
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30						

			QC LIMITS
SMC1	(DBF)	= Dibromofluoromethane	(70-130)
SMC2	(TOL)	= Toluene-d8	(70-130)
SMC3	(BFB)	= Bromofluorobenzene	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix Spike - Sample No.: WL00001BPDL

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Bromomethane	31250	0.000	31740	102	20-150
Vinyl Chloride	31250	0.000	30760	98	20-150
Chloroethane	31250	0.000	30050	96	20-150
Methylene Chloride	31250	3662	29510	83	20-300
1,1-Dichloroethene	31250	0.000	31380	100	20-150
1,1-Dichloroethane	31250	0.000	32430	104	20-150
Chloroform	31250	0.000	31840	102	20-150
1,2-Dichloroethane	31250	0.000	34100	109	20-150
1,1,1-Trichloroethane	31250	0.000	34260	110	20-150
Carbon Tetrachloride	31250	0.000	35790	114	20-150
Bromodichloromethane	31250	0.000	34690	111	20-150
cis-1,3-Dichloropropene	31250	0.000	31950	102	20-150
Trichloroethene	31250	253800	203100	-99*	20-150
Dibromochloromethane	31250	0.000	33210	106	20-150
1,1,2-Trichloroethane	31250	0.000	30270	97	20-150
Benzene	31250	0.000	31480	101	20-150
trans-1,3-Dichloroprope	31250	0.000	28020	90	20-150
Bromoform	31250	0.000	30120	96	20-150
Tetrachloroethene	31250	583600	242300	-99*	20-150
1,1,2,2-Tetrachloroetha	31250	0.000	26980	86	20-150
Toluene	31250	0.000	36230	116	20-150
Chlorobenzene	31250	0.000	34040	109	20-150
Ethylbenzene	31250	0.000	32770	105	20-150
Styrene	31250	0.000	31530	101	20-150
1,2-Dichloropropane	31250	0.000	33530	107	20-150
Chloromethane	31250	0.000	30730	98	20-150
Carbon disulfide	31250	0.000	28740	92	20-150
Acetone	156200	0.000	124700	80	20-300
4-Methyl-2-pentanone	156200	0.000	151400	97	20-300
2-hexanone	156200	0.000	145300	93	20-300

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix Spike - Sample No.: WL00001BPDL

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
2-butanone	156200	0.000	108500	69	20-300
trans-1,2-Dichloroethen	31250	0.000	31540	101	20-150
cis-1,2-Dichloroethene	31250	2047	33540	101	20-150
Xylene (total)	93750	0.000	117800	126	20-150

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix Spike - Sample No.: WL00001BPDL

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Bromomethane	31250	31140	100	2	25	20-150
Vinyl Chloride	31250	30850	99	1	25	20-150
Chloroethane	31250	31290	100	4	25	20-150
Methylene Chloride	31250	25830	71	16	25	20-300
1,1-Dichloroethene	31250	28440	91	9	25	20-150
1,1-Dichloroethane	31250	28820	92	12	25	20-150
Chloroform	31250	29810	95	7	25	20-150
1,2-Dichloroethane	31250	35440	113	4	25	20-150
1,1,1-Trichloroethane	31250	30820	99	10	25	20-150
Carbon Tetrachloride	31250	32320	103	10	25	20-150
Bromodichloromethane	31250	35490	114	3	25	20-150
cis-1,3-Dichloropropene	31250	33490	107	5	25	20-150
Trichloroethene	31250	197200	-99*	-10	25	20-150
Dibromochloromethane	31250	35240	113	6	25	20-150
1,1,2-Trichloroethane	31250	31450	101	4	25	20-150
Benzene	31250	29250	94	7	25	20-150
trans-1,3-Dichloroprope	31250	29140	93	3	25	20-150
Bromoform	31250	33060	106	10	25	20-150
Tetrachloroethene	31250	295500	-99*	-16	25	20-150
1,1,2,2-Tetrachloroetha	31250	30460	97	12	25	20-150
Toluene	31250	35120	112	4	25	20-150
Chlorobenzene	31250	32360	104	5	25	20-150
Ethylbenzene	31250	31130	100	5	25	20-150
Styrene	31250	30540	98	3	25	20-150
1,2-Dichloropropane	31250	34060	109	2	25	20-150
Chloromethane	31250	28820	92	6	25	20-150
Carbon disulfide	31250	27440	88	4	25	20-150
Acetone	156200	145300	93	15	25	20-300
4-Methyl-2-pentanone	156200	183200	117	19	25	20-300
2-hexanone	156200	180500	116	22	25	20-300

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix Spike - Sample No.: WL00001BPDL

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2-butanone	156200	141700	91	28*	25	20-300
trans-1,2-Dichloroethen	31250	26780	86	16	25	20-150
cis-1,2-Dichloroethene	31250	32100	96	5	25	20-150
Xylene (total)	93750	111000	118	6	25	20-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 34 outside limits
Spike Recovery: 4 out of 68 outside limits

COMMENTS: _____

3A

WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

VLCS04

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Lab Sample ID: 913433 LCS Lot No.: SE115

Lab File ID: CR013433B54.D Date Analyzed: 10/11/98

Purge Volume: 25.0 (mL) Dilution Factor: 1.0

COMPOUND	AMOUNT ADDED (ug/L)	AMOUNT RECOVERED (ug/L)	%REC #	QC LIMITS
1,1,1-Trichloroethane	5.00	5.05	101	50-150
1,1,2-Trichloroethane	5.00	5.08	102	50-150
1,2-Dichlorobenzene	5.00	5.26	105	50-150
1,2-Dichloroethane	5.00	5.10	102	50-150
1,3-Dichlorobenzene	5.00	5.39	108	50-150
1,4-Dichlorobenzene	5.00	3.65	73	50-150
Benzene	5.00	5.41	108	50-150
Bromodichloromethane	5.00	5.09	102	50-150
Bromoform	5.00	5.07	101	50-150
Bromomethane	5.00	5.28	106	50-150
Carbon Tetrachloride	5.00	5.18	104	50-150
Carbon disulfide	5.00	5.28	106	50-150
Chloroethane	5.00	5.24	105	50-150
Dibromochloromethane	5.00	5.17	103	50-150
Methylene Chloride	5.00	4.98	100	50-150
Styrene	5.00	4.97	99	50-150
Tetrachloroethene	5.00	5.19	104	50-150
Trichloroethene	5.00	5.32	106	50-150
cis-1,2-Dichloroethene	5.00	5.19	104	50-150
cis-1,3-Dichloropropene	5.00	5.40	108	50-150
trans-1,2-Dichloroethene	5.00	4.88	98	50-150
trans-1,3-Dichloropropene	5.00	4.93	98	50-150
Vinyl acetate	10.00	10.14	101	50-150
2-chloroethyl vinyl ether	50.00	51.61	103	50-150
2-butanone	25.00	24.68	99	0-300
2-hexanone	25.00	27.59	110	0-300
4-Methyl-2-pentanone	25.00	28.54	114	0-300
Acetone	25.00	25.82	103	0-300
1,1,2,2-Tetrachloroethane	5.00	5.15	103	50-150
1,1-Dichloroethane	5.00	4.95	99	50-150

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

3A

WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

VLCS04

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Lab Sample ID: 913433 LCS Lot No.: SE115

Lab File ID: CR013433B54.D Date Analyzed: 10/11/98

Purge Volume: 25.0 (mL) Dilution Factor: 1.0

COMPOUND	AMOUNT ADDED (ug/L)	AMOUNT RECOVERED (ug/L)	%REC #	QC LIMITS
1,1-Dichloroethene	5.00	5.05	101	50-150
1,2-Dichloropropane	5.00	5.14	103	50-150
Chlorobenzene	5.00	5.05	101	50-150
Chloroform	5.00	4.80	96	50-150
Chloromethane	5.00	4.99	100	50-150
Ethylbenzene	5.00	4.98	100	50-150
Toluene	5.00	5.21	104	50-150
Vinyl Chloride	5.00	5.17	103	50-150

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

LCS Recovery: 0 outside limits out of 38 total.

COMMENTS:

3A

WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

VLCS76

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Lab Sample ID: 913879 LCS Lot No.: SE115

Lab File ID: CN013879A56.D Date Analyzed: 10/11/98

Purge Volume: 25.0 (mL) Dilution Factor: 1.0

COMPOUND	AMOUNT ADDED (ug/L)	AMOUNT RECOVERED (ug/L)	%REC #	QC LIMITS
1,1,1-Trichloroethane	5.00	5.77	115	20-150
1,1,2-Trichloroethane	5.00	4.69	94	20-150
1,2-Dichloroethane	5.00	5.42	108	20-150
Benzene	5.00	5.45	109	20-150
Bromodichloromethane	5.00	5.34	107	20-150
Bromoform	5.00	4.94	99	20-150
Bromomethane	5.00	5.26	105	20-150
Carbon Tetrachloride	5.00	5.90	118	20-150
Carbon disulfide	5.00	4.94	99	20-150
Chloroethane	5.00	5.01	100	20-150
Dibromochloromethane	5.00	4.72	94	20-150
Styrene	5.00	4.99	100	20-150
Tetrachloroethene	5.00	6.36	127	20-150
Trichloroethene	5.00	5.51	110	20-150
cis-1,2-Dichloroethene	5.00	5.32	106	20-150
cis-1,3-Dichloropropene	5.00	5.02	100	20-150
trans-1,2-Dichloroethene	5.00	4.44	89	20-150
trans-1,3-Dichloropropene	5.00	4.67	93	20-150
Xylene (total)	15.00	19.20	128	20-150
Methylene Chloride	5.00	4.83	97	20-300
2-butanone	25.00	23.18	93	20-300
2-hexanone	25.00	22.84	91	20-300
4-Methyl-2-pentanone	25.00	25.45	102	20-300
Acetone	25.00	25.45	102	20-300
1,1,2,2-Tetrachloroethane	5.00	4.96	99	20-150
1,1-Dichloroethane	5.00	5.20	104	20-150
1,1-Dichloroethene	5.00	5.38	108	20-150
1,2-Dichloropropane	5.00	5.19	104	20-150
Chlorobenzene	5.00	5.34	107	20-150
Chloroform	5.00	5.58	112	20-150

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

3A

WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

VLCS76

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Lab Sample ID: 913879 LCS Lot No.: SE115

Lab File ID: CN013879A56.D Date Analyzed: 10/11/98

Purge Volume: 25.0 (mL) Dilution Factor: 1.0

COMPOUND	AMOUNT ADDED (ug/L)	AMOUNT RECOVERED (ug/L)	%REC #	QC LIMITS
Chloromethane	5.00	4.83	96	20-150
Ethylbenzene	5.00	5.57	111	20-150
Toluene	5.00	5.47	109	20-150
Vinyl Chloride	5.00	4.81	96	20-150

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

LCS Recovery: 0 outside limits out of 34 total.

COMMENTS:

COMPUCHEM
a division of Liberty Analytical Corp.

98-351 x2
Dayton Bldg 50
5VOCs

OCT 16 1998

15/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

Subject: Report of Data - Account Number# 501112 Order# 33864

ATTN: MR. KEN VOGEL

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers 3 sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services please contact your representative at 1-800-833-5097.

Sincerely,

Diane Ellmore

CompuChem Environmental
a division of Liberty Analytical

Attachment

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel: 919-379-4100 ■ Fax: 919-379-4050

COMPUCHEM
a division of Liberty Analytical Corp.

15/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

ACCOUNT #: 501112

CC#	SAMPLE-ID	RECEIPT DATE
912811	T093098	10/03/98
913008	WL00002	10/05/98
913017	WL00001BP	10/05/98

TOTAL NUMBER OF SAMPLES = 3

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel: 919-379-4100 ■ Fax: 919-379-4050

CompuChem
a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE

CASE # 33864
SDG # 25104
PROTOCOL : SW846
RFA # YGQP9800251

SAMPLE IDENTIFICATIONS: WL00001BP, WL00002

The two (2) soil samples listed above were properly refrigerated, with proper documentation, in a sealed shipping container, on October 5, 1998. With the exception of WL00002, these samples were received intact. The two 40 mL VOA vials for WL00002 were received broken. Ken Vogel was contacted and informed of the broken vials. The samples were scheduled for the requested analyses of the volatile, semivolatile, and pesticide/PCB fractions. These samples were analyzed following SW-846 Method 8270 3rd Edition protocol, with the exceptions and/or additions requested by the client. This portion of the SDG narrative deals with the semivolatile fractions only. As noted on the chain-of-custody (COC) documents, sample WL00001 was multiphasic. The two phases were separated and assigned client ID #'s. WL00001TP was assigned to the top phase and put into SDG 25101; WL00001BP was assigned to the bottom phase and place into SDG 25104.

Semivolatiles Section

Extraction and analysis holding time requirements were met for all of these samples.

There were several requested target analytes identified above reporting limits in these samples. In the continuing calibration standards associated with these samples, benzo(b)fluoranthene and benzo(k)fluoranthene were chromatographically resolved and were identified as separate peaks with different retention times. However, in the samples containing these analytes, the isomers could not be chromatographically resolved. This is indicated with an "X" flag on the Form Is.

900 mL of raw sample were initially used to extract WL00002, rather than the method-specified amount of 1000 mL. Low sample volume was received for this sample. The use of this lower volume of raw sample resulted in slightly higher detection limits.

500 mL of raw sample was used to extract WL00001BP,SBLKRQ, SLCSRQ, and the re-extraction of WL00002, rather than the method-specified amount of 1000 mL. The lower volume was used to allow an aliquot of raw sample to be reserved for further extractions if they became necessary. The extract was concentrated to a final volume of 500 uL, rather than the method-specified 1000 uL and therefore the same effective concentration factor was obtained.

In the initial analysis of WL00002, the recovery of the acid surrogates failed quality control criteria in the associated method blank and the surrogate 2-fluorophenol exhibited low recoveries. The sample was reextracted. In the analysis of the second extract, the surrogate 2-fluorophenol-d5 failed recovery criteria. We have attributed the failing surrogate recoveries to the particular matrix of the sample. Therefore we have reported both analyses of WL00002.

WL00001BP was used as the original to prepare the duplicate matrix spikes (as requested). In the analysis of the original, the recovery of the internal standards 1,4-dichlorobenzene, d8-napthalene, and d10-acenaphthene exhibited low recoveries. The analyses of the duplicate matrix spikes these three internal standards failed recovery criteria. We have attributed the failing surrogate to the particular matrix of the original.

All of the surrogates in samples not previously discussed met recovery criteria. All of the internal standards in samples not previously discussed met response and retention time criteria. With the exception of SBLKPY, the associated method blanks met all quality control criteria. The acid surrogates did not meet quality control criteria; however the associated samples did meet all quality control criteria. Therefore we attributed the low surrogates to an isolated case involving only the method blank. However, the re-extract of sample WL00002 confirmed matrix interferences with surrogate criteria.. The TCL analyte and TIC results matched well between the two analyses of the sample. Therefore we have reported the initial analyses associated with the failing method blank.. The method blank SBLKPY contained levels of phthalate esters and phenol within allowable limits.

WL00001BP was used as the original to prepare the duplicate matrix spikes. With eight exceptions, the associated duplicate matrix spikes met all advisory accuracy and precision criteria. The recovery of the spike compounds 2,4-dinitrophenol, 4-chlorophenyl-phenylether, and 4-nitroaniline were flagged as outliers in the matrix spike. The recovery of spike compound 4-nitroaniline was flagged as an outlier in the matrix spike duplicate. The Relative Percent Difference (RPD) of 4-chloro-3-methylphenol, 2,4-dinitrophenol, 4-nitrophenol, and 4-nirtroaniline were flagged as outliers in the comparison of the duplicate matrix spikes. The associated Laboratory Control Sample (LCS) met all accuracy criteria.

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

Paul T. Frankson
GC/MS Semivolatile Supervisor
October 14, 1998

CHRYSLER CORPORATION

Chain-of-Custody

01502 A

CompuChem
501 Madison Avenue
Cary, NC 27513
Phone Number: 1-800-833-5097
Fax Number: (919) 379-4050

Project Name: Dayton Thermal Products
Site Location: 1000 Webster St. Dayton OH 45401
Site Code: SC.001
RFA Number: YGQP9800251 and 252
Chrysler PM: Gary Stanczak

Consultant: Leggette, Brashears & Graham, Inc.
Address: 1210 West County Road E Suite 700
Saint Paul MN 55112
Consultant PM: Ken Vogel
Phone: 651 490 1405 Fax: 651 490-1006

Turn-around Time Request:
24 calendar hrs
48 calendar hrs
72 hrs
28 days
10 days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Matrix Codes
S - Soil SW - Surface Water
GW - Groundwater A - Air
Sed. - Sediment
O - Other (specify) Sump liquid, Rinsewater

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	8260 VOCs	8270A SVOCs	RCRA Metals 6/7000	TCLP Metals 6/7000	8082C PCBs	9030A TCH Aqueous	9020A TCH Solid	Ch.7 Corrosivity	Ch.7 Ignitability	Volatiles pH < 2	Metals pH < 2	Cyanide pH > 12	Other	Remarks
WS00001	10-2-98	11:00	C	S	6	X	X	X	X	X		X	X	X					Solid Waste
WL00001	↓	12:00	G	O	13	X	X	X		X	X		X	X					Sump Liquid
WL00002	↓	12:50	G	O	13	X	X	X		X	X		X	X					Rinse water (Recvd 2 vons broken & MALL broken in secondary. MFZ 10/)
T093098			-	O		X													Trip blank

See C-O-C 1503 for additional analyses.

Rec'd 806 7983703 opened @ 11:51 Temperature (corrected) 3.9 C

Sampler(s)
Cindy Vandehest LJB

Cooler ID # 48 + 24

Is RFA sampling complete? Yes No

Bottles Relinquished under Airbill No.	Date:	Time:
Relinquished by: Cindy Vandehest	10-2-98	1630
Relinquished by:	Date:	Time:
Relinquished by:	Date:	Time:

Samples Relinquished under Airbill No. 806 7983692

Received by:	Date:	Time:	Custody Seal Intact?
			Yes No
Received by:	Date:	Time:	Custody Seal Intact?
			Yes No
Received for Laboratory by: Marcenard Smith	10-3-98	11:45	Custody Seal Intact? Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Spoke w/ Ken Vogel on 10/5/98 regarding sample ID WL00001 Sample is biphasic. Sample will be split by layer, top phase will be labeled WL00001TP, Bottom phase will be labeled WL00001BP. Also told Ken about broken bottles (no VOCs for unsat) 10/5/98

CHRYSLER CORPORATION

Chain-of-Custody

01503 A

4

CompuChem
501 Madison Avenue
Cary, NC 27513
Phone Number: 1-800-833-5097
Fax Number: (919) 379-4050

Project Name: Dayton Thermal Products
Site Location: 1600 Webster St Dayton OH 45401
Site Code: SC001
RFA Number: YGQP980025I and 252
Chrysler PM: Gary Stankzuk

Consultant: Leggette, Brashears & Graham, Inc.
Address: 1210 West County Road E
St. Paul MN 55112
Consultant PM: Ken Vogel
Phone: 651 490-1405 Fax: 651 490-1006

Turn-around Time Request:
24 calendar hrs.
48 calendar hrs.
~~Other~~
28 days
10 Days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify) Sump Liquid, Rinse water

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	Ch. 7 Reactivity Aqueous	Ch. 7 Reactivity Solid	Volatiles pH <2	Metals pH < 2	Cyanide pH > 12	Other	Remarks
WS00001	10-2-98	11:00	C	S			X					Solid waste
WL00001	↓	12:00	G	O		X						Sump Liquid
WL00002		12:50	G	O		X						Rinse water

See C-O-C 1502 for additional analyses.

and 8061 7983707

Sampler(s)
Cindy Vanderhorst LJB

Cooler ID # 48 + 74

Is RFA sampling complete? Yes No

Bottles Relinquished under Airbill No.

Samples Relinquished under Airbill No. 8061 7983 672

Temperature (corrected) 3.9 C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Cindy Vanderhorst	10-2-98	1630				Yes No
						Yes No
			Received for Laboratory by: Marlinda Smith	10/3/98	11:45	Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Sample WL00001 was placed on hold & stored in walk in cooler because of breakage

ent : Chrysler (LBG)
der # 338604
oject : Dayton Thermal
uote # 98-7078
:count # 501112

Received on 10.3.98 & 10/5/98 10/6 See note on COC # 0502A
# of COC's 2
Delivered by Fed Ex
Freight # 806179983707, 806179983692
Subcontract Y / (N)
TAT : Verbal _____ Hardcopy 10 day

PPS / (RFA) # 251 & 252 Page 1 of 1
Lab Instructions : TCL VOH, SV, PCB / TCLP Metals / Corr / Ign / React / TOX

SDG 10/5	REQ	SAMPLE ID	CCN	AMOUNT / CONTAINER	PARAMETER	ANALYSIS CODE	LINE ITEM	SAMPLE DATE	MX	pH
25104	2	T093098	912811	2.60ml	VOA	1356	1	10.2.98	NA	NA
25102	3	WS00001	912814	2.4oz; 3.8oz	Corr. Ign. React. V, SV, RCRA Metals, PCB, TCX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002	1, 24, 26, 28, 3, 7, 11, 18, 32		SO	
25103	4	↓	912834	1.8oz	TCLP metals	1846, 1143	13, 14			
25101	5	WL00001 DG 10/6	912839	2.60ml; 10AL; 1.500ml PL	Corr. Ign. React. V, SV, RCRA Met. PCB, TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002	24, 26, 28, 1, 5, 9, 16, 20		XX 10/5/98 NA	NA
25104	6	WL00002	913008	6.AL; 1.500ml PL	Corr / Ign / React. SV/RCRA/PCB/TOX/	1317, 1254, 1316, 797, 2019, 748, 4002,	24, 26, 28, 5, 9, 16, 20		NA	NA
↓	7	WL00003 DG 10/6	913017	2-60ml; 1.500ml PL; 9AL	Corr / Ign / React V/SV/RCRA/PCB/TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002,	24, 26, 28, 1, 5, 7, 16, 20,		NA	NA/<2

D Ellmore 10/5/98

Logged In By : Marlene A. Smith / Diane Ellmore
Cyanide samples checked for sulfide and chlorine Y (NA)
Holding Blank(s) : Counter / Page / CCN's

Order Entered By Marlene A. Smith / Diane Ellmore
Received in good condition Y / (N) ID WL00003 – 4.(AL) bottle broken
Temperature(s) 3.9 °C

COMPUCHEM
a division of Liberty Analytical
501 Madison Avenue
Cary, NC 27513

October 5, 1998

To: Kenny
Mark
Ricky

From: Diane

Re: Case 33864 SDG 25101 & 25104

Sample WL00001 is biphasic. We received 2- 60 ml vials for this sample. The top phase (TP) is CCN 912839 (SDG 25101). This sample matrix is 'XX' (oil). The bottom phase (BP) is CCN 913017 (SDG 25104). This sample matrix is water. Both CCN's appear on the bottles. Please take care in analyzing the correct phase with the correct CCN.

CompuChem

A Division of Liberty Analytical Corp

Chain-of-Custody

BATCH # 10-9-1

#	Relinquished by	Date	Received by	Date	Reason/Remark
1	[illegible]	10/9/98	GC/MS Refrig #2	10/9/98	[illegible]
2	GCMS Refrig #2	10/9/98	C Daniel	10/9/98	Analysis #68
3	C Daniel	10/9/98	GCMS Refrig #2	10/9/98	Temp Storage
4	GCMS Refrig #2	10-12-98	C Daniel	10-12-98	Analysis 68
5	C Daniel	10-12-98	GCMS Refrig #2	10-12-98	Temp Storage
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
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27					
28					
29					
30					

Batch: 0079-981008-0754 COMPUCHEM ENVIRONMENTAL CORP. Date Extracted/Posted: 10/9/98

Assigned to Janell/Grace/Tom EXTRACTION WORKSHEET

Emp.ID number: 2357/6000/6001 EPA CLP SOW

Auto Counter _____ / _____

Original Entered for SS's _____

Initials / Date _____ / _____

Semi Volatile Water 8270 Method Queue #127

CASE/SDG: 33364.25104 Proc: -079 Manual counter: 510/2712

CONTRACT: 33857.E1521 DUE DATE: 10/22/98

10-9-1

	CompuChem Sample Number	Client ID#	Bottle #	Sample Volume (mL)	Final Vol(ml) S/V	Adj. PH B/N	Adj. PH ACID	Comments
1	913449	SLCSRQ 10/08		500	0.5	12.1	1.6	PPS 623
2	913448	SBLKRQ 10/08		500		12.5	1.6	
3	913346	CM1GW98019 10/07	1/1	500		12.5	1.3	USE 500ml for samples, blank & LC & add 0.5ml of #393 Final volume = 0.5m Add 0.5ml validation spike to LCS.
4	913353	CMRS981006 10/07	1/1	500		12.5	1.6	
5	913349	CM2GW98018 10/07	1/1	500		12.5	1.3	
6	913350	CM4GW98017 10/07	1/1	500		12.8	1.9	

Surrogate S-VOL ACID B/N 8270

NO. 393

AMT. 1.0ml

LOT 47898

Final Volume Verified: _____

Reviewed By : _____

Extracts received by: _____ (print)

_____ (sign)

Spike S-VOL ACID B/N 8270

NO. ~~2012 2021~~ Valid spike

AMT. ~~1.0ml 1.0ml~~ ~~1.0ml~~ 0.5ml

LOT 47767

QC:

CompuChem Samp#	Client ID#	QC Type

CH_2Cl_2 - BS234 M19634

Na_2SO_4 M01051

H_2SO_4 D101

NaOH

Verif. Surr/Spike Addition:

Initials AJG / Date 10/8/98

AJG 10/8/98

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

0079-981008-0754, Case: OPEN Case size: 6 Nbr other batch: 0 (Client Specific QC)

7	913009R1	SS	10/12	500	0.5	12.5	1.6	1137/430	RFA 251
8	913010R1	SS	10/12			12.8	1.6		
9	913017R1	WL0000001	5/12		1.0	12.8	1.6	USE 913017 FOR 913009 & 913010	
10	912500R1	SS	3/4		0.5	12.5	1.6	1137/428	RFA 1521
11	912501R1	SS	4/4			12.5	1.3	FOR 912500 & 912501	
12	912497R1	W0920	3/4			12.8	1.9	~~USE~~ pick QC from #s 12 or 13.	
13	912502R1	W0808FB	3/4			12.5	1.6		
14	912503R1	W0808FB	3/4			12.5	1.6		
15	912504R1	EB0930098	4/6			12.8	1.6		
16	912507R1	W0713	5/7	310	0.3	12.8	1.0		
17	913008R1	WL0000002	5/7	500	1.0	12.8	1.6	~~A~~ sample would not concentrate down any further. DS 10/8/98	RFA 251

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001BP

Project: YGQP9800251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913017

Sample wt/vol: 500 (g/mL) ML Lab File ID: GJR13017C68.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:10/08/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 10/10/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
108-95-2	Phenol	20	3	J
111-44-4	bis(2-Chloroethyl)ether	20		U
95-57-8	2-Chlorophenol	20		U
541-73-1	1,3-Dichlorobenzene	20		U
106-46-7	1,4-Dichlorobenzene	20		U
95-50-1	1,2-Dichlorobenzene	20		U
95-48-7	2-Methylphenol	20	11	J
39638-32-9	Bis(2-chloroisopropyl)ether	20		U
106-44-5	4-Methylphenol	20	6	J
621-64-7	N-Nitroso-di-n-propylamine	20		U
67-72-1	Hexachloroethane	20		U
98-95-3	Nitrobenzene	20		U
78-59-1	Isophorone	20		U
88-75-5	2-Nitrophenol	20		U
105-67-9	2,4-Dimethylphenol	20	10	J
111-91-1	bis(2-Chloroethoxy)methane	20		U
120-83-2	2,4-Dichlorophenol	20		U
120-82-1	1,2,4-Trichlorobenzene	20		U
91-20-3	Naphthalene	20		U
106-47-8	4-Chloroaniline	20		U
87-68-3	Hexachlorobutadiene	20		U
59-50-7	4-Chloro-3-methylphenol	20		U
91-57-6	2-Methylnaphthalene	20	4	J
77-47-4	Hexachlorocyclopentadiene	20		U
88-06-2	2,4,6-Trichlorophenol	20		U
95-95-4	2,4,5-Trichlorophenol	100		U
91-58-7	2-Chloronaphthalene	20		U
88-74-4	2-Nitroaniline	100		U
131-11-3	Dimethylphthalate	20		U
208-96-8	Acenaphthylene	20		U
606-20-2	2,6-Dinitrotoluene	20		U
99-09-2	3-Nitroaniline	100		U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00001BP

Project: YGQP9800251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913017

Sample wt/vol: 500 (g/mL) ML Lab File ID: GJR13017C68.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 10/08/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 10/10/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
83-32-9	Acenaphthene	20	3	J
51-28-5	2,4-Dinitrophenol	100		U
100-02-7	4-Nitrophenol	100		U
121-14-2	2,4-Dinitrotoluene	20		U
132-64-9	Dibenzofuran	20		U
84-66-2	Diethylphthalate	20		U
7005-72-3	4-Chlorophenyl-phenylether	20		U
86-73-7	Fluorene	20	4	J
100-01-6	4-Nitroaniline	100		U
534-52-1	4,6-Dinitro-2-methylphenol	100		U
86-30-6	N-nitrosodiphenylamine (1)	20		U
101-55-3	4-Bromophenyl-phenylether	20		U
118-74-1	Hexachlorobenzene	20		U
87-86-5	Pentachlorophenol	100		U
85-01-8	Phenanthrene	20	16	J
120-12-7	Anthracene	20		U
86-74-8	Carbazole	20		U
84-74-2	Di-n-butylphthalate	20		U
206-44-0	Fluoranthene	20	22	
129-00-0	Pyrene	20	19	J
85-68-7	Butylbenzylphthalate	20	14	J
91-94-1	3,3'-Dichlorobenzidine	40		U
117-81-7	bis(2-Ethylhexyl)phthalate	20	46	
56-55-3	Benzo(a)anthracene	20	11	J
218-01-9	Chrysene	20	14	J
117-84-0	Di-n-octylphthalate	20		U
205-99-2	Benzo(b)fluoranthene	20	19	XJ
207-08-9	Benzo(k)fluoranthene	20	23	X
50-32-8	Benzo(a)pyrene	20	13	J
193-39-5	Indeno(1,2,3-cd)pyrene	20	5	J
53-70-3	Dibenzo(a,h)anthracene	20		U
191-24-2	Benzo(g,h,i)perylene	20	6	J

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00002

Project: YGQP9800251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913008

Sample wt/vol: 900 (g/mL) ML Lab File ID: G2J13008B68.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:10/05/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 10/13/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
108-95-2	Phenol	11	2	J
111-44-4	bis(2-Chloroethyl)ether	11		U
95-57-8	2-Chlorophenol	11		U
541-73-1	1,3-Dichlorobenzene	11		U
106-46-7	1,4-Dichlorobenzene	11		U
95-50-1	1,2-Dichlorobenzene	11		U
95-48-7	2-Methylphenol	11	3	J
39638-32-9	Bis(2-chloroisopropyl)ether	11		U
106-44-5	4-Methylphenol	11	1	J
621-64-7	N-Nitroso-di-n-propylamine	11		U
67-72-1	Hexachloroethane	11		U
98-95-3	Nitrobenzene	11		U
78-59-1	Isophorone	11		U
88-75-5	2-Nitrophenol	11		U
105-67-9	2,4-Dimethylphenol	11	3	J
111-91-1	bis(2-Chloroethoxy)methane	11		U
120-83-2	2,4-Dichlorophenol	11		U
120-82-1	1,2,4-Trichlorobenzene	11		U
91-20-3	Naphthalene	11	5	J
106-47-8	4-Chloroaniline	11		U
87-68-3	Hexachlorobutadiene	11		U
59-50-7	4-Chloro-3-methylphenol	11		U
91-57-6	2-Methylnaphthalene	11	4	J
77-47-4	Hexachlorocyclopentadiene	11		U
88-06-2	2,4,6-Trichlorophenol	11		U
95-95-4	2,4,5-Trichlorophenol	56		U
91-58-7	2-Chloronaphthalene	11		U
88-74-4	2-Nitroaniline	56		U
131-11-3	Dimethylphthalate	11		U
208-96-8	Acenaphthylene	11		U
606-20-2	2,6-Dinitrotoluene	11		U
99-09-2	3-Nitroaniline	56		U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00002

Project: YGQP9800251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913008

Sample wt/vol: 900 (g/mL) ML Lab File ID: G2J13008B68.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 10/05/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 10/13/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
83-32-9	Acenaphthene	11	6	J
51-28-5	2,4-Dinitrophenol	56		U
100-02-7	4-Nitrophenol	56		U
121-14-2	2,4-Dinitrotoluene	11		U
132-64-9	Dibenzofuran	11	4	J
84-66-2	Diethylphthalate	11	7	JB
7005-72-3	4-Chlorophenyl-phenylether	11		U
86-73-7	Fluorene	11	6	J
100-01-6	4-Nitroaniline	56		U
534-52-1	4,6-Dinitro-2-methylphenol	56		U
86-30-6	N-nitrosodiphenylamine (1)	11		U
101-55-3	4-Bromophenyl-phenylether	11		U
118-74-1	Hexachlorobenzene	11		U
87-86-5	Pentachlorophenol	56		U
85-01-8	Phenanthrene	11	27	
120-12-7	Anthracene	11	6	J
86-74-8	Carbazole	11	6	J
84-74-2	Di-n-butylphthalate	11	2	JB
206-44-0	Fluoranthene	11	35	
129-00-0	Pyrene	11	24	
85-68-7	Butylbenzylphthalate	11	6	J
91-94-1	3,3'-Dichlorobenzidine	22		U
117-81-7	bis(2-Ethylhexyl)phthalate	11	23	B
56-55-3	Benzo(a)anthracene	11	13	
218-01-9	Chrysene	11	12	
117-84-0	Di-n-octylphthalate	11		U
205-99-2	Benzo(b)fluoranthene	11	16	X
207-08-9	Benzo(k)fluoranthene	11	16	X
50-32-8	Benzo(a)pyrene	11	8	J
193-39-5	Indeno(1,2,3-cd)pyrene	11	3	J
53-70-3	Dibenzo(a,h)anthracene	11		U
191-24-2	Benzo(g,h,i)perylene	11	4	J

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00002RE

Project: YGQP9800251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913008

Sample wt/vol: 500 (g/mL) ML Lab File ID: GRJ13008B68.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 10/08/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 10/13/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
108-95-2	Phenol	20	2	J
111-44-4	bis(2-Chloroethyl)ether	20		U
95-57-8	2-Chlorophenol	20		U
541-73-1	1,3-Dichlorobenzene	20		U
106-46-7	1,4-Dichlorobenzene	20		U
95-50-1	1,2-Dichlorobenzene	20		U
95-48-7	2-Methylphenol	20		U
39638-32-9	Bis(2-chloroisopropyl)ether	20		U
106-44-5	4-Methylphenol	20		U
621-64-7	N-Nitroso-di-n-propylamine	20		U
67-72-1	Hexachloroethane	20		U
98-95-3	Nitrobenzene	20		U
78-59-1	Isophorone	20		U
88-75-5	2-Nitrophenol	20		U
105-67-9	2,4-Dimethylphenol	20	2	J
111-91-1	bis(2-Chloroethoxy)methane	20		U
120-83-2	2,4-Dichlorophenol	20		U
120-82-1	1,2,4-Trichlorobenzene	20		U
91-20-3	Naphthalene	20	4	J
106-47-8	4-Chloroaniline	20		U
87-68-3	Hexachlorobutadiene	20		U
59-50-7	4-Chloro-3-methylphenol	20		U
91-57-6	2-Methylnaphthalene	20	6	J
77-47-4	Hexachlorocyclopentadiene	20		U
88-06-2	2,4,6-Trichlorophenol	20		U
95-95-4	2,4,5-Trichlorophenol	100		U
91-58-7	2-Chloronaphthalene	20		U
88-74-4	2-Nitroaniline	100		U
131-11-3	Dimethylphthalate	20		U
208-96-8	Acenaphthylene	20		U
606-20-2	2,6-Dinitrotoluene	20		U
99-09-2	3-Nitroaniline	100		U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WL00002RE

Project: YGQP9800251 Date Sampled: 10/03/98

Lab Code: COMPU Case No.: 22864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913008

Sample wt/vol: 500 (g/mL) ML Lab File ID: GRJ13008B68.D

Level: (low/med) LOW Date Received: 10/05/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 10/08/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 10/13/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
83-32-9	Acenaphthene	20	13	J
51-28-5	2,4-Dinitrophenol	100		U
100-02-7	4-Nitrophenol	100		U
121-14-2	2,4-Dinitrotoluene	20		U
132-64-9	Dibenzofuran	20	7	J
84-66-2	Diethylphthalate	20		U
7005-72-3	4-Chlorophenyl-phenylether	20		U
86-73-7	Fluorene	20	13	J
100-01-6	4-Nitroaniline	100		U
534-52-1	4,6-Dinitro-2-methylphenol	100		U
86-30-6	N-nitrosodiphenylamine (1)	20		U
101-55-3	4-Bromophenyl-phenylether	20		U
118-74-1	Hexachlorobenzene	20		U
87-86-5	Pentachlorophenol	100		U
85-01-8	Phenanthrene	20	70	
120-12-7	Anthracene	20	7	J
86-74-8	Carbazole	20	8	J
84-74-2	Di-n-butylphthalate	20	3	J
206-44-0	Fluoranthene	20	76	
129-00-0	Pyrene	20	50	
85-68-7	Butylbenzylphthalate	20		U
91-94-1	3,3'-Dichlorobenzidine	40		U
117-81-7	bis(2-Ethylhexyl)phthalate	20	65	
56-55-3	Benzo(a)anthracene	20	25	
218-01-9	Chrysene	20	31	
117-84-0	Di-n-octylphthalate	20		U
205-99-2	Benzo(b)fluoranthene	20	37	X
207-08-9	Benzo(k)fluoranthene	20	36	X
50-32-8	Benzo(a)pyrene	20	19	J
193-39-5	Indeno(1,2,3-cd)pyrene	20	8	J
53-70-3	Dibenzo(a,h)anthracene	20		U
191-24-2	Benzo(g,h,i)perylene	20	7	J

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKPY

Project: YGQP9800251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 912964

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH012964B68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 10/05/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 10/07/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
95-48-7	2-Methylphenol	10		U
39638-32-9	Bis(2-chloroisopropyl)ether	10		U
106-44-5	4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	50		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	50		U
131-11-3	Dimethylphthalate	10		U
208-96-8	Acenaphthylene	10		U
606-20-2	2,6-Dinitrotoluene	10		U
99-09-2	3-Nitroaniline	50		U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKPY

Project: YGQP9800251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 912964

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH012964B68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:10/05/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 10/07/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	50		U
100-02-7	4-Nitrophenol	50		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10	4	J
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	50		U
534-52-1	4,6-Dinitro-2-methylphenol	50		U
86-30-6	N-nitrosodiphenylamine (1)	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	50		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	10	1	J
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
91-94-1	3,3'-Dichlorobenzidine	20		U
117-81-7	bis(2-Ethylhexyl)phthalate	10	63	
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-octylphthalate	10		U
205-99-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U
53-70-3	Dibenzo(a,h)anthracene	10		U
191-24-2	Benzo(g,h,i)perylene	10		U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKRQ

Project: YGQP9800251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913448

Sample wt/vol: 500 (g/mL) ML Lab File ID: GJ013448B68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 10/08/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 10/13/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
95-48-7	2-Methylphenol	10		U
39638-32-9	Bis(2-chloroisopropyl)ether	10		U
106-44-5	4-Methylphenol	10		U
621-64-7	N-Nitroso-di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	50		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	50		U
131-11-3	Dimethylphthalate	10		U
208-96-8	Acenaphthylene	10		U
606-20-2	2,6-Dinitrotoluene	10		U
99-09-2	3-Nitroaniline	50		U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKRQ

Project: YGQP9800251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913448

Sample wt/vol: 500 (g/mL) ML Lab File ID: GJ013448B68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:10/08/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 10/13/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
83-32-9	Acenaphthene	10		U
51-28-5	2,4-Dinitrophenol	50		U
100-02-7	4-Nitrophenol	50		U
121-14-2	2,4-Dinitrotoluene	10		U
132-64-9	Dibenzofuran	10		U
84-66-2	Diethylphthalate	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
86-73-7	Fluorene	10		U
100-01-6	4-Nitroaniline	50		U
534-52-1	4,6-Dinitro-2-methylphenol	50		U
86-30-6	N-nitrosodiphenylamine (1)	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	50		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
91-94-1	3,3'-Dichlorobenzidine	20		U
117-81-7	bis(2-Ethylhexyl)phthalate	10		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
117-84-0	Di-n-octylphthalate	10		U
205-99-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U
53-70-3	Dibenzo(a,h)anthracene	10		U
191-24-2	Benzo(g,h,i)perylene	10		U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSPY

Project: YGQP9800251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 912965

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH012965B68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:10/05/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 10/07/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
108-95-2	Phenol	10	47	
111-44-4	bis(2-Chloroethyl)ether	10	97	
95-57-8	2-Chlorophenol	10	90	
541-73-1	1,3-Dichlorobenzene	10	82	
106-46-7	1,4-Dichlorobenzene	10	81	
95-50-1	1,2-Dichlorobenzene	10	82	
95-48-7	2-Methylphenol	10	88	
39638-32-9	Bis(2-chloroisopropyl)ether	10	90	
106-44-5	4-Methylphenol	10	81	
621-64-7	N-Nitroso-di-n-propylamine	10	96	
67-72-1	Hexachloroethane	10	82	
98-95-3	Nitrobenzene	10	99	
78-59-1	Isophorone	10	91	
88-75-5	2-Nitrophenol	10	94	
105-67-9	2,4-Dimethylphenol	10	90	
111-91-1	bis(2-Chloroethoxy)methane	10	100	
120-83-2	2,4-Dichlorophenol	10	94	
120-82-1	1,2,4-Trichlorobenzene	10	88	
91-20-3	Naphthalene	10	94	
106-47-8	4-Chloroaniline	10	86	
87-68-3	Hexachlorobutadiene	10	90	
59-50-7	4-Chloro-3-methylphenol	10	93	
91-57-6	2-Methylnaphthalene	10	85	
77-47-4	Hexachlorocyclopentadiene	10	89	
88-06-2	2,4,6-Trichlorophenol	10	90	
95-95-4	2,4,5-Trichlorophenol	50	97	
91-58-7	2-Chloronaphthalene	10	88	
88-74-4	2-Nitroaniline	50	97	
131-11-3	Dimethylphthalate	10	93	
208-96-8	Acenaphthylene	10	98	
606-20-2	2,6-Dinitrotoluene	10	95	
99-09-2	3-Nitroaniline	50	100	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSPY

Project: YGQP9800251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 912965

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH012965B68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:10/05/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 10/07/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
83-32-9	Acenaphthene	10	100	
51-28-5	2,4-Dinitrophenol	50	76	
100-02-7	4-Nitrophenol	50	41	J
121-14-2	2,4-Dinitrotoluene	10	89	
132-64-9	Dibenzofuran	10	91	
84-66-2	Diethylphthalate	10	93	B
7005-72-3	4-Chlorophenyl-phenylether	10	94	
86-73-7	Fluorene	10	100	
100-01-6	4-Nitroaniline	50	96	
534-52-1	4,6-Dinitro-2-methylphenol	50	72	
86-30-6	N-nitrosodiphenylamine (1)	10	94	
101-55-3	4-Bromophenyl-phenylether	10	100	
118-74-1	Hexachlorobenzene	10	93	
87-86-5	Pentachlorophenol	50	78	
85-01-8	Phenanthrene	10	93	
120-12-7	Anthracene	10	96	
86-74-8	Carbazole	10	89	
84-74-2	Di-n-butylphthalate	10	95	B
206-44-0	Fluoranthene	10	96	
129-00-0	Pyrene	10	85	
85-68-7	Butylbenzylphthalate	10	87	
91-94-1	3,3'-Dichlorobenzidine	20	68	
117-81-7	bis(2-Ethylhexyl)phthalate	10	78	B
56-55-3	Benzo(a)anthracene	10	87	
218-01-9	Chrysene	10	81	
117-84-0	Di-n-octylphthalate	10	100	
205-99-2	Benzo(b)fluoranthene	10	92	
207-08-9	Benzo(k)fluoranthene	10	110	
50-32-8	Benzo(a)pyrene	10	100	
193-39-5	Indeno(1,2,3-cd)pyrene	10	95	
53-70-3	Dibenzo(a,h)anthracene	10	100	
191-24-2	Benzo(g,h,i)perylene	10	100	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSRQ

Project: YGQP980251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913449

Sample wt/vol: 500 (g/mL) ML Lab File ID: GJ013449B68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:10/08/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 10/13/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
108-95-2	Phenol	10	36	
111-44-4	bis(2-Chloroethyl)ether	10	73	
95-57-8	2-Chlorophenol	10	63	
541-73-1	1,3-Dichlorobenzene	10	69	
106-46-7	1,4-Dichlorobenzene	10	69	
95-50-1	1,2-Dichlorobenzene	10	67	
95-48-7	2-Methylphenol	10	62	
39638-32-9	Bis(2-chloroisopropyl)ether	10	76	
106-44-5	4-Methylphenol	10	57	
621-64-7	N-Nitroso-di-n-propylamine	10	73	
67-72-1	Hexachloroethane	10	67	
98-95-3	Nitrobenzene	10	79	
78-59-1	Isophorone	10	77	
88-75-5	2-Nitrophenol	10	70	
105-67-9	2,4-Dimethylphenol	10	73	
111-91-1	bis(2-Chloroethoxy)methane	10	79	
120-83-2	2,4-Dichlorophenol	10	76	
120-82-1	1,2,4-Trichlorobenzene	10	73	
91-20-3	Naphthalene	10	80	
106-47-8	4-Chloroaniline	10	72	
87-68-3	Hexachlorobutadiene	10	73	
59-50-7	4-Chloro-3-methylphenol	10	85	
91-57-6	2-Methylnaphthalene	10	74	
77-47-4	Hexachlorocyclopentadiene	10	64	
88-06-2	2,4,6-Trichlorophenol	10	80	
95-95-4	2,4,5-Trichlorophenol	50	82	
91-58-7	2-Chloronaphthalene	10	94	
88-74-4	2-Nitroaniline	50	91	
131-11-3	Dimethylphthalate	10	92	
208-96-8	Acenaphthylene	10	91	
606-20-2	2,6-Dinitrotoluene	10	87	
99-09-2	3-Nitroaniline	50	94	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSRQ

Project: YGQP980251 Date Sampled: _____

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix: (soil/water) WATER Lab Sample ID: 913449

Sample wt/vol: 500 (g/mL) ML Lab File ID: GJ013449B68.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 10/08/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 10/13/98

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS: UG/L

CAS NO.	COMPOUND	DL	CONC	Q
83-32-9	Acenaphthene	10	90	
51-28-5	2,4-Dinitrophenol	50	89	
100-02-7	4-Nitrophenol	50	45	J
121-14-2	2,4-Dinitrotoluene	10	88	
132-64-9	Dibenzofuran	10	86	
84-66-2	Diethylphthalate	10	97	
7005-72-3	4-Chlorophenyl-phenylether	10	92	
86-73-7	Fluorene	10	83	
100-01-6	4-Nitroaniline	50	140	
534-52-1	4,6-Dinitro-2-methylphenol	50	94	
86-30-6	N-nitrosodiphenylamine (1)	10	99	
101-55-3	4-Bromophenyl-phenylether	10	92	
118-74-1	Hexachlorobenzene	10	90	
87-86-5	Pentachlorophenol	50	89	
85-01-8	Phenanthrene	10	97	
120-12-7	Anthracene	10	99	
86-74-8	Carbazole	10	96	
84-74-2	Di-n-butylphthalate	10	98	
206-44-0	Fluoranthene	10	100	
129-00-0	Pyrene	10	88	
85-68-7	Butylbenzylphthalate	10	89	
91-94-1	3,3'-Dichlorobenzidine	20	71	
117-81-7	bis(2-Ethylhexyl)phthalate	10	91	
56-55-3	Benzo(a)anthracene	10	90	
218-01-9	Chrysene	10	90	
117-84-0	Di-n-octylphthalate	10	130	
205-99-2	Benzo(b)fluoranthene	10	120	
207-08-9	Benzo(k)fluoranthene	10	110	
50-32-8	Benzo(a)pyrene	10	110	
193-39-5	Indeno(1,2,3-cd)pyrene	10	95	
53-70-3	Dibenzo(a,h)anthracene	10	110	
191-24-2	Benzo(g,h,i)perylene	10	100	

(1) - Cannot be separated from Diphenylamine

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 #	S8 #	TOT OUT
01	SBLKPY	52	58	64	0*	0*	1*			3
02	SBLKRQ	73	75	70	36	51	75			0
03	SLCSPY	75	77	72	38	53	71			0
04	SLCSRQ	56	62	67	27	35	62			0
05	WL00001BP	69	73	70	36	34	74			0
06	WL00001BPMS	67	111	65	37	35	117			0
07	WL00001BPMSD	64	90	58	40	34	73			0
08	WL00002	53	58	51	21	26	44			0
09	WL00002RE	43	65	61	22	18*	71			1
10										
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			QC LIMITS
S1	(NBZ)	= Nitrobenzene-d5	(35-114)
S2	(FBP)	= 2-Fluorobiphenyl	(43-116)
S3	(TPH)	= Terphenyl-d14	(33-141)
S4	(PHL)	= Phenol-d5	(10-110)
S5	(2FP)	= 2-Fluorophenol	(21-110)
S6	(TBP)	= 2,4,6-Tribromophenol	(10-123)

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

Data File: /chem/5972hp68.i/DF981007B68_288.b/GH012965B68.d
Report Date: 12-Oct-1998 12:35

CompuChem Environmental Corp.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 912965
Level: LOW
Data Type: MS DATA
SpikeList File: TCL.spk
Client SDG: VARIOUS
Fraction: SV
Client Smp ID: SLCSPY
Operator: 2358
SampleType: METHSPIKE
Quant Type: ISTD
Method File: /chem/5972hp68.i/DF981007B68_288.b/8270_288.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
15 Phenol	100.0	47.21	47.21	10-150
17 bis(2-Chloroethyl)	100.0	96.92	96.92	10-150
18 2-Chlorophenol	100.0	89.82	89.82	10-150
19 1,3-Dichlorobenzen	100.0	82.09	82.09	10-150
20 1,4-Dichlorobenzen	100.0	80.75	80.75	10-150
21 1,2-Dichlorobenzen	100.0	82.18	82.18	10-150
22 2-Methylphenol	100.0	87.97	87.97	10-150
23 Bis(2-chloroisopro	100.0	89.87	89.87	10-150
25 4-Methylphenol	200.0	80.63	40.32	10-150
26 N-Nitroso-di-n-pro	100.0	95.90	95.90	10-150
27 Hexachloroethane	100.0	81.94	81.94	10-150
28 Nitrobenzene	100.0	99.45	99.45	10-150
29 Isophorone	100.0	91.19	91.19	10-150
31 2,4-Dimethylphenol	100.0	89.90	89.90	10-150
30 2-Nitrophenol	100.0	94.28	94.28	10-150
32 bis(2-Chloroethoxy	100.0	102.5	102.53	10-150
33 2,4-Dichlorophenol	100.0	94.45	94.45	10-150
34 1,2,4-Trichloroben	100.0	88.36	88.36	10-150
35 Naphthalene	100.0	93.54	93.55	10-150
36 4-Chloroaniline	100.0	85.52	85.52	10-150
37 Hexachlorobutadien	100.0	89.70	89.70	10-150
38 4-Chloro-3-methylp	100.0	92.84	92.84	10-150
39 2-Methylnaphthalen	100.0	85.11	85.11	10-150
41 Hexachlorocyclopen	100.0	88.61	88.61	0-150
42 2,4,6-Trichlorophe	100.0	90.37	90.37	10-150
43 2,4,5-Trichlorophe	100.0	97.15	97.15	10-150
44 2-Chloronaphthalen	100.0	88.35	88.35	10-150
45 2-Nitroaniline	100.0	96.68	96.68	10-150
46 Dimethylphthalate	100.0	93.00	93.00	10-150
48 2,6-Dinitrotoluene	100.0	95.04	95.04	10-150
47 Acenaphthylene	100.0	97.61	97.61	10-150
49 3-Nitroaniline	100.0	103.6	103.57	10-150
50 Acenaphthene	100.0	102.0	102.03	10-150
51 2,4-Dinitrophenol	100.0	76.11	76.11	10-150
52 4-Nitrophenol	100.0	41.20	41.20	10-150
53 2,4-Dinitrotoluene	100.0	89.32	89.32	10-150

Data File: /chem/5972hp68.i/DF981007B68_288.b/GH012965B68.d
Report Date: 12-Oct-1998 12:35

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
54 Dibenzofuran	100.0	90.96	90.96	10-150
55 Diethylphthalate	100.0	93.46	93.46	10-150
56 4-Chlorophenyl-phe	100.0	94.17	94.17	10-150
57 Fluorene	100.0	100.6	100.60	10-150
58 4-Nitroaniline	100.0	95.72	95.72	10-150
59 4,6-Dinitro-2-meth	100.0	72.14	72.14	10-150
60 N-nitrosodiphenyla	100.0	93.76	93.76	10-150
62 4-Bromophenyl-phen	100.0	102.4	102.38	10-150
63 Hexachlorobenzene	100.0	92.82	92.82	10-150
64 Pentachlorophenol	100.0	77.83	77.83	10-150
65 Phenanthrene	100.0	92.59	92.59	10-150
66 Anthracene	100.0	96.23	96.23	10-150
67 Carbazole	100.0	89.05	89.05	10-150
68 Di-n-butylphthalat	100.0	94.56	94.56	10-150
69 Fluoranthene	100.0	95.63	95.63	10-150
71 Pyrene	100.0	85.13	85.13	10-150
72 Butylbenzylphthala	100.0	87.22	87.22	10-150
73 3,3'-Dichlorobenzi	100.0	68.28	68.28	10-150
74 bis(2-Ethylhexyl)p	100.0	77.52	77.52	10-150
75 Benzo(a)anthracene	100.0	86.99	86.99	10-150
76 Chrysene	100.0	80.60	80.60	10-150
77 Di-n-octylphthalat	100.0	100.6	100.59	10-150
78 Benzo(b)fluoranthe	100.0	92.44	92.44	10-150
79 Benzo(k)fluoranthe	100.0	106.6	106.65	10-150
80 Benzo(a)pyrene	100.0	102.5	102.50	10-150
81 Indeno(1,2,3-cd)py	100.0	94.84	94.84	10-150
82 Dibenzo(a,h)anthra	100.0	101.2	101.21	10-150
83 Benzo(g,h,i)peryle	100.0	103.4	103.44	10-150

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 7 2-Fluorophenol	200.0	105.6	52.81	21-110
$ 8 Phenol-d5	200.0	76.74	38.37	10-110
$ 9 Nitrobenzene-d5	100.0	74.68	74.68	35-114
$ 10 2-Fluorobiphenyl	100.0	77.10	77.10	43-116
$ 11 2,4,6-Tribromophen	200.0	142.4	71.19	10-123
$ 12 Terphenyl-d14	100.0	72.49	72.49	33-141

Data File: /chem/5972hp68.i/DF981013B68.b/GJ013449B68.d
Report Date: 14-Oct-1998 14:51

CompuChem Environmental Corp.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 913449
Level: LOW
Data Type: MS DATA
SpikeList File: TCL.spk
Client SDG: VARIOUS
Fraction: SV
Client Smp ID: SLCSRQ
Operator: 2358
SampleType: METHSPIKE
Quant Type: ISTD
Method File: /chem/5972hp68.i/DF981013B68.b/8270_288.m
Misc Info: YGQP980251/1521

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
15 Phenol	100.0	35.80	35.80	10-150
17 bis(2-Chloroethyl)	100.0	73.39	73.39	10-150
18 2-Chlorophenol	100.0	62.88	62.88	10-150
19 1,3-Dichlorobenzen	100.0	68.69	68.69	10-150
20 1,4-Dichlorobenzen	100.0	68.88	68.88	10-150
21 1,2-Dichlorobenzen	100.0	67.27	67.27	10-150
22 2-Methylphenol	100.0	62.47	62.47	10-150
23 Bis(2-chloroisopro	100.0	76.24	76.24	10-150
25 4-Methylphenol	200.0	56.86	28.43	10-150
26 N-Nitroso-di-n-pro	100.0	72.57	72.57	10-150
27 Hexachloroethane	100.0	66.83	66.83	10-150
28 Nitrobenzene	100.0	78.92	78.92	10-150
29 Isophorone	100.0	77.08	77.08	10-150
31 2,4-Dimethylphenol	100.0	73.26	73.26	10-150
30 2-Nitrophenol	100.0	70.04	70.04	10-150
32 bis(2-Chloroethoxy	100.0	79.27	79.27	10-150
33 2,4-Dichlorophenol	100.0	75.77	75.77	10-150
34 1,2,4-Trichloroben	100.0	72.64	72.65	10-150
35 Naphthalene	100.0	80.21	80.21	10-150
36 4-Chloroaniline	100.0	72.08	72.08	10-150
37 Hexachlorobutadien	100.0	72.57	72.57	10-150
38 4-Chloro-3-methylp	100.0	85.42	85.42	10-150
39 2-Methylnaphthalen	100.0	73.90	73.90	10-150
41 Hexachlorocyclopen	100.0	63.77	63.77	0-150
42 2,4,6-Trichlorophe	100.0	80.19	80.19	10-150
43 2,4,5-Trichlorophe	100.0	81.51	81.51	10-150
44 2-Chloronaphthalen	100.0	94.06	94.06	10-150
45 2-Nitroaniline	100.0	91.28	91.28	10-150
46 Dimethylphthalate	100.0	91.79	91.79	10-150
48 2,6-Dinitrotoluene	100.0	86.60	86.60	10-150
47 Acenaphthylene	100.0	90.64	90.64	10-150
49 3-Nitroaniline	100.0	94.01	94.01	10-150
50 Acenaphthene	100.0	89.88	89.89	10-150
51 2,4-Dinitrophenol	100.0	89.21	89.21	10-150
52 4-Nitrophenol	100.0	45.45	45.45	10-150
53 2,4-Dinitrotoluene	100.0	87.88	87.88	10-150

Data File: /chem/5972hp68.i/DF981013B68.b/GJ013449B68.d
Report Date: 14-Oct-1998 14:51

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
54 Dibenzofuran	100.0	86.45	86.45	10-150
55 Diethylphthalate	100.0	96.90	96.91	10-150
56 4-Chlorophenyl-phe	100.0	91.60	91.60	10-150
57 Fluorene	100.0	83.48	83.48	10-150
58 4-Nitroaniline	100.0	135.4	135.40	10-150
59 4,6-Dinitro-2-meth	100.0	94.16	94.16	10-150
60 N-nitrosodiphenyla	100.0	98.77	98.77	10-150
62 4-Bromophenyl-phen	100.0	92.36	92.36	10-150
63 Hexachlorobenzene	100.0	90.26	90.26	10-150
64 Pentachlorophenol	100.0	88.60	88.60	10-150
65 Phenanthrene	100.0	97.36	97.36	10-150
66 Anthracene	100.0	99.46	99.46	10-150
67 Carbazole	100.0	96.05	96.05	10-150
68 Di-n-butylphthalat	100.0	97.98	97.98	10-150
69 Fluoranthene	100.0	99.64	99.64	10-150
71 Pyrene	100.0	88.31	88.31	10-150
72 Butylbenzylphthala	100.0	88.70	88.71	10-150
73 3,3'-Dichlorobenzi	100.0	71.02	71.02	10-150
74 bis(2-Ethylhexyl)p	100.0	91.34	91.34	10-150
75 Benzo(a)anthracene	100.0	89.73	89.73	10-150
76 Chrysene	100.0	89.98	89.98	10-150
77 Di-n-octylphthalat	100.0	125.5	125.53	10-150
78 Benzo(b)fluoranthe	100.0	117.8	117.76	10-150
79 Benzo(k)fluoranthe	100.0	112.3	112.26	10-150
80 Benzo(a)pyrene	100.0	111.6	111.64	10-150
81 Indeno(1,2,3-cd)py	100.0	95.25	95.25	10-150
82 Dibenzo(a,h)anthra	100.0	105.5	105.52	10-150
83 Benzo(g,h,i)peryle	100.0	102.4	102.37	10-150

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 7 2-Fluorophenol	200.0	70.41	35.20	21-110
$ 8 Phenol-d5	200.0	54.39	27.20	10-110
$ 9 Nitrobenzene-d5	100.0	55.54	55.54	35-114
$ 10 2-Fluorobiphenyl	100.0	62.12	62.12	43-116
$ 11 2,4,6-Tribromophen	200.0	124.6	62.32	10-123
$ 12 Terphenyl-d14	100.0	67.01	67.01	33-141

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix Spike - Sample No.: WL00001BP

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	100.0	3.32	51.98	49	10-150
bis(2-Chloroethyl)ether	100.0	0.000	73.99	74	10-150
2-Chlorophenol	100.0	0.000	57.38	57	10-150
1,3-Dichlorobenzene	100.0	0.000	53.04	53	10-150
1,4-Dichlorobenzene	100.0	0.000	56.12	56	10-150
1,2-Dichlorobenzene	100.0	0.000	58.59	58	10-150
2-Methylphenol	100.0	10.71	83.03	72	10-150
Bis(2-chloroisopropyl)e	100.0	0.000	89.83	90	10-150
4-Methylphenol	200.0	5.65	77.26	36	10-150
N-Nitroso-di-n-prop.(1)	100.0	0.000	96.48	96	10-150
Hexachloroethane	100.0	0.000	63.02	63	10-150
Nitrobenzene	100.0	0.000	78.53	78	10-150
Isophorone	100.0	0.000	80.67	81	10-150
2-Nitrophenol	100.0	0.000	64.87	65	10-150
2,4-Dimethylphenol	100.0	9.84	88.97	79	10-150
bis(2-Chloroethoxy)meth	100.0	0.000	85.05	85	10-150
2,4-Dichlorophenol	100.0	0.000	84.62	85	10-150
1,2,4-Trichlorobenzene	100.0	0.000	79.67	80	10-150
Naphthalene	100.0	0.000	87.30	87	10-150
4-Chloroaniline	100.0	0.000	70.55	70	10-150
Hexachlorobutadiene	100.0	0.000	83.50	84	10-150
4-Chloro-3-methylphenol	100.0	0.000	31.23	31	10-150
2-Methylnaphthalene	100.0	3.57	85.47	82	10-150
Hexachlorocyclopentadie	100.0	0.000	0.000	0	0-150
2,4,6-Trichlorophenol	100.0	0.000	128.2	128	10-150
2,4,5-Trichlorophenol	100.0	0.000	107.9	108	10-150
2-Chloronaphthalene	100.0	0.000	134.8	135	10-150
2-Nitroaniline	100.0	0.000	100.7	101	10-150
Dimethylphthalate	100.0	0.000	95.16	95	10-150
Acenaphthylene	100.0	0.000	99.06	99	10-150

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix Spike - Sample No.: WL00001BP

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
2,6-Dinitrotoluene	100.0	0.000	105.8	106	10-150
3-Nitroaniline	100.0	0.000	145.4	145	10-150
Acenaphthene	100.0	3.08	108.1	105	10-150
2,4-Dinitrophenol	100.0	0.000	166.4	166*	10-150
4-Nitrophenol	100.0	0.000	131.4	131	10-150
2,4-Dinitrotoluene	100.0	0.000	137.1	137	10-150
Dibenzofuran	100.0	0.000	108.8	109	10-150
Diethylphthalate	100.0	0.000	146.2	146	10-150
4-Chlorophenyl-phenylet	100.0	0.000	155.7	156*	10-150
Fluorene	100.0	4.40	140.5	136	10-150
4-Nitroaniline	100.0	0.000	251.9	252*	10-150
4,6-Dinitro-2-methylphe	100.0	0.000	96.78	97	10-150
N-nitrosodiphenylamine	100.0	0.000	84.86	85	10-150
4-Bromophenyl-phenyleth	100.0	0.000	101.9	102	10-150
Hexachlorobenzene	100.0	0.000	83.93	84	10-150
Pentachlorophenol	100.0	0.000	18.92	19	10-150
Phenanthrene	100.0	16.19	101.9	86	10-150
Anthracene	100.0	0.000	105.2	105	10-150
Carbazole	100.0	0.000	119.1	119	10-150
Di-n-butylphthalate	100.0	0.000	114.4	114	10-150
Fluoranthene	100.0	22.47	126.4	104	10-150
Pyrene	100.0	19.07	96.23	77	10-150
Butylbenzylphthalate	100.0	14.15	89.72	76	10-150
3,3'-Dichlorobenzidine	100.0	0.000	85.15	85	10-150
bis(2-Ethylhexyl)phthal	100.0	46.13	111.3	65	10-150
Benzo(a)anthracene	100.0	11.06	127.5	116	10-150
Chrysene	100.0	13.63	130.1	116	10-150
Di-n-octylphthalate	100.0	0.000	84.69	85	10-150
Benzo(b)fluoranthene	100.0	18.62	121.4	103	10-150
Benzo(k)fluoranthene	100.0	22.87	128.4	106	10-150

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix Spike - Sample No.: WL6J001BP

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Benzo(a)pyrene	100.0	12.71	115.2	102	10-150
Indeno(1,2,3-cd)pyrene	100.0	5.25	92.83	88	10-150
Dibenzo(a,h)anthracene	100.0	0.000	101.3	101	10-150
Benzo(g,h,i)perylene	100.0	6.05	110.1	104	10-150

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix Spike - Sample No.: WL00001BP

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	100.0	55.89	52	6	40	10-150
bis(2-Chloroethyl)ether	100.0	70.60	71	4	40	10-150
2-Chlorophenol	100.0	65.02	65	13	40	10-150
1,3-Dichlorobenzene	100.0	62.52	62	16	40	10-150
1,4-Dichlorobenzene	100.0	64.86	65	15	40	10-150
1,2-Dichlorobenzene	100.0	67.73	68	16	40	10-150
2-Methylphenol	100.0	93.73	83	14	40	10-150
Bis(2-chloroisopropyl)e	100.0	93.32	93	3	40	10-150
4-Methylphenol	200.0	85.62	40	10	40	10-150
N-Nitroso-di-n-prop.(1)	100.0	95.74	96	0	40	10-150
Hexachloroethane	100.0	70.12	70	10	40	10-150
Nitrobenzene	100.0	83.21	83	6	40	10-150
Isophorone	100.0	83.81	84	4	40	10-150
2-Nitrophenol	100.0	73.66	74	13	40	10-150
2,4-Dimethylphenol	100.0	100.2	90	13	40	10-150
bis(2-Chloroethoxy)meth	100.0	97.27	97	13	40	10-150
2,4-Dichlorophenol	100.0	86.10	86	1	40	10-150
1,2,4-Trichlorobenzene	100.0	86.94	87	8	40	10-150
Naphthalene	100.0	92.94	93	7	40	10-150
4-Chloroaniline	100.0	95.02	95	30	40	10-150
Hexachlorobutadiene	100.0	88.86	89	6	40	10-150
4-Chloro-3-methylphenol	100.0	85.95	86	94*	40	10-150
2-Methylnaphthalene	100.0	88.24	85	4	40	10-150
Hexachlorocyclopentadie	100.0	0.000	0	0	40	0-150
2,4,6-Trichlorophenol	100.0	143.3	143	11	40	10-150
2,4,5-Trichlorophenol	100.0	73.68	74	37	40	10-150
2-Chloronaphthalene	100.0	119.2	119	12	40	10-150
2-Nitroaniline	100.0	93.62	94	7	40	10-150
Dimethylphthalate	100.0	93.04	93	2	40	10-150
Acenaphthylene	100.0	91.14	91	8	40	10-150

3C
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix Spike - Sample No.: WL00001BP

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,6-Dinitrotoluene	100.0	90.12	90	16	40	10-150
3-Nitroaniline	100.0	119.6	120	19	40	10-150
Acenaphthene	100.0	84.18	81	26	40	10-150
2,4-Dinitrophenol	100.0	73.53	74	77*	40	10-150
4-Nitrophenol	100.0	62.89	63	70*	40	10-150
2,4-Dinitrotoluene	100.0	99.32	99	32	40	10-150
Dibenzofuran	100.0	83.00	83	27	40	10-150
Diethylphthalate	100.0	137.1	137	6	40	10-150
4-Chlorophenyl-phenylet	100.0	112.4	112	33	40	10-150
Fluorene	100.0	108.8	104	27	40	10-150
4-Nitroaniline	100.0	158.9	159*	45*	40	10-150
4,6-Dinitro-2-methylphe	100.0	76.43	76	24	40	10-150
N-nitrosodiphenylamine	100.0	81.08	81	5	40	10-150
4-Bromophenyl-phenyleth	100.0	80.34	80	24	40	10-150
Hexachlorobenzene	100.0	77.87	78	7	40	10-150
Pentachlorophenol	100.0	15.07	15	24	40	10-150
Phenanthrene	100.0	86.98	71	19	40	10-150
Anthracene	100.0	89.93	90	15	40	10-150
Carbazole	100.0	97.17	97	20	40	10-150
Di-n-butylphthalate	100.0	87.12	87	27	40	10-150
Fluoranthene	100.0	107.0	84	21	40	10-150
Pyrene	100.0	84.28	65	17	40	10-150
Butylbenzylphthalate	100.0	75.67	62	20	40	10-150
3,3'-Dichlorobenzidine	100.0	75.38	75	12	40	10-150
bis(2-Ethylhexyl)phthal	100.0	94.50	48	30	40	10-150
Benzo(a)anthracene	100.0	104.0	93	22	40	10-150
Chrysene	100.0	118.7	105	10	40	10-150
Di-n-octylphthalate	100.0	81.56	82	4	40	10-150
Benzo(b)fluoranthene	100.0	105.0	86	18	40	10-150
Benzo(k)fluoranthene	100.0	121.8	99	7	40	10-150

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Matrix Spike - Sample No.: WL00001BP

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Benzo(a)pyrene	100.0	109.5	97	5	40	10-150
Indeno(1,2,3-cd)pyrene	100.0	76.08	71	21	40	10-150
Dibenzo(a,h)anthracene	100.0	84.86	85	17	40	10-150
Benzo(g,h,i)perylene	100.0	81.11	75	32	40	10-150

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

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

RPD: 4 out of 64 outside limits
Spike Recovery: 4 out of 128 outside limits

COMMENTS: _____

4B

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

SBLKPY

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Lab File ID: GH012964B68.D Lab Sample ID: 912964

Instrument ID: 5972HP68 Date Extracted: 10/05/98

Matrix: (soil/water) WATER Date Analyzed: 10/07/98

Level:(low/med) LOW Time Analyzed: 1843

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SLCSPY	912965	GH012965B68.D	10/07/98
02	WL00002	913008	G2J13008B68.D	10/13/98
03				
04				
05				
06				
07				
08				
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29				
30				

COMMENTS:

FORM IV SV

4B

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

SBLKRQ

Lab Name: COMPUCHEM Contract: 501112

Lab Code: COMPU Case No.: 33864 SAS No.: SDG No.: 25104

Lab File ID: GJ013448B68.D Lab Sample ID: 913448

Instrument ID: 5972HP68 Date Extracted: 10/08/98

Matrix: (soil/water) WATER Date Analyzed: 10/13/98

Level:(low/med) LOW Time Analyzed: 1858

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WL00001BP	913017	GJR13017C68.D	10/10/98
02	WL00001BPMSD	913010	GJR13010C68.D	10/10/98
03	WL00001BPMS	913009	GJR13009C68.D	10/10/98
04	SLCSRQ	913449	GJ013449B68.D	10/13/98
05	WL00002RE	913008	GRJ13008B68.D	10/13/98
06				
07				
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COMMENTS:

FORM IV SV

COMPUCHEM
a division of Liberty Analytical Corp.

OCT 16 1998

98-25142
Dayton
Bldg 50
inorganics

15/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

Subject: Report of Data - Account Number# 501112 Order# 33864

ATTN: MR. KEN VOGEL

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers 3 sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services please contact your representative at 1-800-833-5097.

Sincerely,

Diane Ellmore

CompuChem Environmental
a division of Liberty Analytical

Attachment

501 Madison Avenue ■ Cary, N C 27513 ■ Tel. 919-379-4100 ■ Fax: 919-379-4050

COMPUCHEM
a division of Liberty Analytical Corp.

15/OCT/98

LEGGETTE BRASHEARS & GRAHAM
ATTN: MR. KEN VOGEL
1210 WEST COUNTY Rd. E, STE700
ST. PAUL, MN 55112

ACCOUNT #: 501112

CC#	SAMPLE-ID	RECEIPT DATE
912811	T093098	10/03/98
913008	WL00002	10/05/98
913017	WL00001BP	10/05/98

TOTAL NUMBER OF SAMPLES = 3

501 Madison Avenue ■ Cary, NC 27513 ■ Tel 919-379-4100 ■ Fax: 919-379-4050

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864 SAS No.: _____ SDG No.:25104_

SOW No.: SW846__

EPA Sample No.	Lab Sample ID
_WL00001BP____	_913017_____
_WL00002_____	_913008_____
_WL00002D_____	_913014_____
_WL00002M_____	_913012_____
_WL00002S__ ___	_913011_____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:
____THE_FOLLOWING_ANALYTES_HAVE_BEEN_FLAGGED_WITH_AN_"E"_TO_INDICATE_____
____SERIAL_DILUTION_RESULTS_WHICH_ARE_NOT_WITHIN_CONTROL_LIMITS:_____
____BARIUM_____

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

Signature: Carol J. Yandell Name: Carol Yandell

Date: 10/12/98 Title: Inorganic Manager

CompuChem
501 Madison Avenue Cary, NC 27513

INORGANIC CASE SUMMARY NARRATIVE
CASE # 33864 SDG # 25104
PROTOCOL #SW-846

The indicated Sample Delivery Group (SDG) consisting of two (2) water samples was received into the laboratory management system (LIMS) on October 5, 1998 intact and in good condition with Chain of Custody (COC) records in order. Sample ID's reported in this data package are noted by the receiving department on the COC if they differ from those listed by the samplers on the COC.

The samples were analyzed for the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver) using analytical methods delineated in SW-846 (3rd edition) or EPA accepted CLP related modifications of those methods.

SAMPLE IDs:

The following customer IDs are associated with this SDG:

WL00001BP WL00002

INSTRUMENTAL QUALITY CONTROL:

All calibration verification solutions (ICV & CCV), blanks (ICB, CCB) and interference check samples (ICSA & ICSAB) associated with this data were confirmed to be within SW-846 allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:

The sample preparation procedure verifications (LCSW & PBW) were found to be within acceptable ranges and all field samples were prepared and analyzed within the contract specified holding times. Due to insufficient sample volume spikes were not performed for mercury.

MATRIX RELATED QUALITY CONTROL:

The sample matrix spike, 913011 (WL00002S) was found to be outside control limits for barium and selenium. The sample matrix spike duplicate, 913012 (WL00002M) was found to be outside control limits for barium. The reported concentrations for these analytes are flagged with an "N" on all associated Form 1 and on Form 5a.

An "N" indicates a matrix-related interference in the sample preparation procedure &/or analysis for the flagged analyte. This is normally the consequence of a relatively high anionic content in the sample or (for some sediments) an inconsistent sample matrix relative to that analyte.

SW-846 control limits for matrix spike recoveries are set at 80% to 120% of the analyte quantity added unless original sample concentrations exceed the true values of these "spikes" by a factor of four or more;

in this case effected analytes are not flagged even if recoveries fall outside percentage recovery control limits.

Post-digestion spikes are mandatory for analytes demonstrating unsatisfactory matrix spike recoveries during ICP analysis (excluding silver). The results of such spikes are presented on Form 5b.

Unsatisfactory recovery of post-digestion spikes of this type do not have bearing upon the aforementioned "N" flags, but may indicate interference during analysis &/or a solution matrix which is hostile to the analyte in question.

Satisfactory recovery of an analyte in a post-digestion spike of this type implies interference by the required preparation procedure or in the sample matrix itself. Lack of uniformity for an analyte in sediments will also result in satisfactory recovery of post-digestion spikes after failure in the related matrix spike.

The sample matrix duplicate, 913014 (WL00002D) was out of control for barium. The reported concentrations for these analytes are flagged with a "*" on all associated Form 1 and on Form 6.

A "*" indicates a non-homogeneous sample matrix in regard to the flagged analyte. This is normally the consequence of a relatively coarse texture or of a mixed-matrix in sediment samples.

SW-846 control limits for duplicate determinations are +/- 20% Relative Percent Difference (RPD) for concentrations greater than or equal to five times the CRDL in both the original and duplicate samples, and +/- the CRDL for concentrations less than five times the CRDL. The RPD is not calculated if both the original and duplicate values fall below the IDL.

A four-fold serial dilution of sample, 913008 (WL00002L) was performed in accordance with SW-846 requirements for ICP analysis.

The adjusted sample concentrations were outside control limits for barium, which are flagged with an "E" on all associated Form 1, the Cover Page and Form 9.

An "E" indicates that a chemical or physical interference effect was encountered during the analysis of the flagged analyte. As a result of this interference, all values for the analyte in the same matrix must be considered to be estimated quantities.

SW-846 control limits for serial dilution are defined as a deviation less than or equal to 10% in the dilution-adjusted concentrations from the original values for all analyte concentrations with values greater than fifty (50) times their respective Instrument Detection Limit (IDL) in the original sample.

This SDG package was processed using the Ward Scientific software. This software package has a seven character limitation on the Forms 13 and 14 -- any sample ID's which exceed seven characters are truncated from left to right on these forms.

Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Carol J. Yandell
Senior Chemist
October 12, 1998

CompuChem
a Division of Liberty Analytical Corp.
501 Madison Avenue Cary, NC 27513

CompuChem Environmental Corportation

DATA REPORTING QUALIFIERS FOR INORGANICS

On Form I, under the column labeled "C" for concentration qualifier and "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each analyte.

The C (concentration) qualifiers used are:

U: This flag indicates the analyte was analyzed for but not detected. This reported value was obtained from a reading that was less than the Instrument Detection Limit (IDL). The IDL will be adjusted to reflect any dilution and, for soils, the percent moisture.

B: This flag indicates the analyte was analyzed for and the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL). This flag also indicates the analyte was not detected, but the result is greater than or equal to the IDL.

The Q qualifiers used are:

E: This flag indicates an estimated value. This flag is used:

1. when the serial dilution (a five fold dilution for CLP and a four fold dilution for SW-846 method 6010A) results are not within 10%. The analyte concentration must be sufficiently high (minimally a factor of 50X above the IDL in the original sample).
2. when the analytical spike recovery associated with the sample is below 40% after two successive dilutions by Graphite Furnace Atomic Absorption (GFAA).

M: This flag applies to GFAA analyses for concentrations greater than the Contract Required Detection Limit (CRDL). This flag is only used for GFAA if the analytical sample or analytical spike duplicate injection reading is not within 20% of the Relative Standard Deviation (RSD).

N: This flag indates the sample spike recovery is outside of control limits:

***:** This flag is used for duplicate analysis when the sample and the sample duplicate results are not within control limits.

S: This flag applies to GFAA analyses to indicate the reported value was determined by the Method of Standard Additions (MSA).

W: This flag applies to GFAA analyses when the post-digestion spike (analytical spike) is out of control limits (85% - 115%), while sample absorbance is less than 50% of "spike" absorbance ["spike" is defined as (absorbance or concentration of spike sample) minus (absorbance or concentration of the sample)].

+: This flag applies to GFAA analyses when the correlation coefficient for the MSA is less than 0.995 after two MSA analyses.

NOTE: Entering "S", "W", or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

CompuChem Receiving Log

See note on COC #0502A

Client: Chrysler (LBG)
Order #: 338604
Project: Dayton Thermal
Quote #: 98-7078
Account #: 501112

Received on: 10.3.98 & 10/5/98 DE 10/5
# of COC's: 2
Delivered by: Fed Ex
Freight #: 806179983707, 806179983692
Subcontract Y / (N)
TAT: Verbal _____ Hardcopy 10-day

PPS / RFA # 251 & 252
Page 1 of 1
Lab Instructions: TCL VOA, SV, PCB / TCLP Metals / Corr / Ign / React / TOX

	SDG 10/5 DE	REQ	SAMPLE ID	CCN	AMOUNT / CONTAINER	PARAMETER	ANALYSIS CODE	LINE ITEM	SAMPLE DATE	MX	pH
1	25104	2	T093098	912811	2·60ml	VOA	1356	1	10.2.98	WA	NA
2	25102	3	WS00001	912814	2·4oz; 3·8oz	Corr. Ign. React. V, SV, RCRA Metal, PCB, TOX	1317, 1254, 1316, 1357, 798, 2020, 749, 4003	24, 26, 28, 30, 3, 7, 11, 18, 22		SO	
3	25103	4	↓	912834	1·8oz	TCLP metals	486, 1143	13, 14		↓	↓
4	25101	5	WL00001 ~~BFTP~~ DE 10/6	912839	2·60ml; 10AL; 1·500ml PL	Corr. Ign. React. V, SV, RCRA Met. PCB, TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002	24, 26, 28, 1, 5, 9, 16, 20,		XX DE 10/5/98 WA	NA / <2
5	25104	6	WL00002	913008	6·AL; 1·500ml PL	Corr / Ign / React. SV / RCRA / PCB / TOX /	1317, 1254, 1316, 797, 2019, 748, 4002,	24, 26, 28, 5, 9, 16, 20	↓	WA	NA / <2
6	↓	7	WL00003 ~~BFTP~~ DE 10/5	913017	2-60ml; 1-500ml; 1-9AL	Corr / Ign / React V / SV / RCRA / PCB / TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002,	24, 26, 28, 1, 5, 7, 16, 20,	↓	WA	NA / <2
7											
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D Ellmore 10/5/98

Logged In By: Marlene J. Amijo / Diane Ellmore
Order Entered By: Marlene J. Amijo / Diane Ellmore
Cyanide samples checked for sulfide and chlorine Y (NA)
Received in good condition Y / (N) ID WL00002 – 4-(AL) vials broken. 3 of 4 VOA vials received broken

Holding Blank(s): Counter / Page / CCN's /

CHRYSLER CORPORATION

Chain-of-Custody

01502 A

CompuChem
501 Madison Avenue
Cary, NC 27513
Phone Number: 1-800-833-5097
Fax Number: (919) 379-4050

Project Name: Dayton Thermal Products
Site Location: 1600 Webster St. Dayton OH 45401
Site Code: SC001
RFA Number: YGQP9800251 and 252
Chrysler PM: Gary Stanczuk

Consultant: Leggette, Brashears & Graham, Inc.
Address: 1210 West County Road E Suite 700
Saint Paul MN 55112
Consultant PM: Ken Vogel
Phone: 651 490 1405 Fax: 651 490-1006

Turn-around Time Request:
24 calendar hrs
48 calendar hrs
~~10 days~~
28 days
10 days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil SW - Surface Water
GW - Groundwater A - Air
Sed. - Sediment
O - Other (specify) Sump liquid, Rinsewater

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	8260 VOCs	8270 A SVOCs	RCRA Metals 6/7000	TCLP Metals 6/7000	8080 PCBs	9020A TOH Aqueous	9020A TOH Solid	Ch.7 Corrosivity	Ch.7 Ignitability	Volatiles pH < 2	Metals pH < 2	Cyanide pH > 12	Other	Remarks
WS00001	10-2-98	11:00	C	S	6	X	X	X	X	X		X	X	X					Solid Waste
WL00001	↓	12:00	G	O	13	X	X	X		X	X		X	X					Sump Liquid
WL00002	↓	12:50	G	O	13	X	X	X		X	(X)		X	X					Rinse water (X) Rec'd 2 vols broken & [illegible] broken in receipt MLS
T093098			—	O		X													Trip blank
See C-O-C 1503 for additional analyses.																			

Cond 806 7798 3701
Opened @ 11:51

Sampler(s) Cindy Vanderhorst LJB

Cooler ID # 48 + 74

Is RFA sampling complete? (Yes) No

Bottles Relinquished under Airbill No.

Samples Relinquished under Airbill No. 806 7798 3692

Temperature (corrected) 3.9 C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Cindy Vanderhorst	10-2-98	1630				Yes No
						Yes No
			Received for Laboratory by: Marlene A. Smith	10-3-98	11:45	(Yes) No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow : Retained by laboratory Pink: Retained by sampler

Spoke w/ Ken Vogel on 10/5/98 regarding sample ID WL00001. Sample is biphasic. Sample will be split by layer, & phase will be labeled WL00001TP, bottom phase will be labeled WL00001BP. Also told Ken about broken bottles (no VOCs for waste) 10/5/98

Sample WL00002 placed on hold @ placed in S/MP walk in cooler because of breakage [illegible] All other samples placed @ 12:15

Revision No 1
Created September 23, 1997

COMPUCHEM
a division of Liberty Analytical
501 Madison Avenue
Cary, NC 27513

October 5, 1998

To: Kenny
Mark
Ricky

From: Diane

Re: Case 33864 SDG 25101 & 25104

Sample WL00001 is biphasic. We received 2- 60 ml vials for this sample. The top phase (TP) is CCN 912839 (SDG 25101). This sample matrix is 'XX' (oil). The bottom phase (BP) is CCN 913017 (SDG 25104). This sample matrix is water. Both CCN's appear on the bottles. Please take care in analyzing the correct phase with the correct CCN.

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WL00002

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25104_

Matrix (soil/water): WATER Lab Sample ID: 913008

Level (low/med): LOW__ Date Received: 10/05/98

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic__	6.6	B		P_
7440-39-3	Barium___	569		EN*	P_
7440-43-9	Cadmium__	48.4			P_
7440-47-3	Chromium_	207			P_
7439-92-1	Lead_____	527			P_
7439-97-6	Mercury__	0.11	B		CV
7782-49-2	Selenium_	5.2	U	N	P_
7440-22-4	Silver___	0.65	B		P_

Color Before: GREEN____ Clarity Before: CLOUDY Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

Duplicate_(WL00002D)

FORM I - IN SW846

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WL00001BP

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25104_

Matrix (soil/water): WATER Lab Sample ID: 913017

Level (low/med): LOW__ Date Received: 10/05/98

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic__	21.5			P_
7440-39-3	Barium___	398		EN*	P_
7440-43-9	Cadmium__	115			P_
7440-47-3	Chromium_	1440			P_
7439-92-1	Lead_____	14400			P_
7439-97-6	Mercury__	1.0			CV
7782-49-2	Selenium_	5.5		N	P_
7440-22-4	Silver___	8.6			P_

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: YELLOW___ Clarity After: CLOUDY Artifacts: _____

Comments:

FORM I - IN SW846

3
BLANKS

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25104_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Arsenic	3.7	U	3.7	U	3.7	U	3.7	U	3.70	U	P
Barium	0.6	U	0.6	U	0.6	U	0.6	U	0.60	U	P
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U	0.30	U	P
Chromium	-0.8	B	0.7	U	0.7	U	0.7	U	0.70	U	P
Lead	1.6	U	1.6	U	2.2	B	2.4	B	1.60	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.10	U	CV
Selenium	5.2	U	5.2	U	5.2	U	5.2	U	5.20	U	P
Silver	0.6	U	0.6	U	0.6	U	0.6	U	0.60	U	P

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

WL00002M

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25104_

Matrix (soil/water): WATER_ Level (low/med): LOW___

% Solids for Sample: __0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75-125	38.5500		6.6050	B	40.00	79.9		P
Barium	75-125	1769.0000		569.3000		2000.00	60.0	N	P
Cadmium	75-125	89.5600		48.3700		50.00	82.4		P
Chromium	75-125	358.2000		207.4000		200.00	75.4		P
Lead		527.4000		527.3000		20.00	0.5		P
Mercury									NR
Selenium	75-125	8.3540		5.2000	U	10.00	83.5		P
Silver	75-125	44.9100		0.6520	B	50.00	88.5		P

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

WL00002S

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25104_

Matrix (soil/water): WATER_ Level (low/med): LOW___

% Solids for Sample: __0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75-125	40.5100		6.6050	B	40.00	84.8		P
Barium	75-125	1766.0000		569.3000		2000.00	59.8	N	P
Cadmium	75-125	90.6000		48.3700		50.00	84.5		P
Chromium	75-125	362.5000		207.4000		200.00	77.5		P
Lead		525.7000		527.3000		20.00	-8.0		P
Mercury									NR
Selenium	75-125	6.0050		5.2000	U	10.00	60.0	N	P
Silver	75-125	45.3700		0.6520	B	50.00	89.4		P

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

WL00002A

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25104_

Matrix (soil/water) : WATER_ Level (low/med): LOW___

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Arsenic									NR
Barium		1584.00		569.30		1140.0	89.0		P
Cadmium									NR
Chromium									NR
Lead									NR
Mercury									NR
Selenium		12.26		5.20	U	10.0	122.6		P
Silver									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

WL00002D

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25104_

Matrix (soil/water): WATER Level (low/med): _LOW__

% Solids for Sample: __0.0 % Solids for Duplicate: ___0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Arsenic		6.6050	B	6.9310	B	4.8		P
Barium		569.3000		1015.0000		56.3	*	P
Cadmium		48.3700		43.2100		11.3		P
Chromium		207.4000		188.4000		9.6		P
Lead		527.3000		479.9000		9.4		P
Mercury		0.1140	B	0.1250	B	9.2		CV
Selenium		5.2000	U	5.2000	U			P
Silver		0.6520	B	1.0520	B	46.9		P

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25104_

Solid LCS Source: _____

Aqueous LCS Source: PELMER_____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Arsenic	1000.0	812.40	81.2						
Barium	20000.0	16460.00	82.3						
Cadmium	500.0	440.30	88.1						
Chromium	1000.0	847.90	84.8						
Lead	300.0	266.60	88.9						
Mercury									
Selenium	500.0	451.70	90.3						
Silver	1000.0	811.50	81.1						

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 33864_ SAS No.: _____ SDG No.: 25104_

Solid LCS Source: _____

Aqueous LCS Source: IVT_____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Arsenic									
Barium									
Cadmium									
Chromium									
Lead									
Mercury	3.0	3.38	112.6						
Selenium									
Silver									

CompuChem
A Division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

98-25182
Dayton Bldg 50

OCT 16 1998

October 14, 1998

Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

Dear Mr. Vogel:

We at CompuChem are pleased to provide our report for the analysis you requested. Data for the following samples are enclosed:

Client ID Number	CompuChem ID Number	Analysis Code	Case Number	Description of Work Requested
WL00002	913008	1317	33864. 25104	Corrosivity by pH
WL00001BP	913017	1254		Ignitability
		1316		Reactive Cyanide
		1316		Reactive Sulfide
		4002		Total Organic Halide in Water

Thank you for selecting CompuChem Environmental for your sample analysis. If you have any questions concerning this report or the analytical methods employed, please contact your Sales Representative at 919-379-4100.

Sincerely,

Diane Ellmore

Project Manager

ANALYTICAL REPORT OF DATA - CASE # 33864. 25104

SUBMITTED TO:
Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

LABORATORY CHRONICLE - CORROSIVITY BY PH ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	WL00002	913008	10/05/98	10/07/98
2.	WL00001BP	913017	10/05/98	10/07/98

ANALYTICAL REPORT OF DATA - CASE # 33864. 25104

SUBMITTED TO:
Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

LABORATORY CHRONICLE - IGNITABILITY ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	WL00002	913008	10/05/98	10/07/98
2.	WL00001BP	913017	10/05/98	10/07/98

ANALYTICAL REPORT OF DATA - CASE # 33864. 25104

SUBMITTED TO:
Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

LABORATORY CHRONICLE - REACTIVE CYANIDE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE EXTRACTION COMPLETED	DATE ANALYSIS COMPLETED
1.	WL00002	913008	10/05/98	10/13/98	10/13/98
2.	WL00001BP	913017	10/05/98	10/13/98	10/13/98

ANALYTICAL REPORT OF DATA - CASE # 33864. 25104

SUBMITTED TO:
Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

LABORATORY CHRONICLE - REACTIVE SULFIDE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE EXTRACTION COMPLETED	DATE ANALYSIS COMPLETED
1.	WL00002	913008	10/05/98	10/13/98	10/13/98
2.	WL00001BP	913017	10/05/98	10/13/98	10/13/98

ANALYTICAL REPORT OF DATA - CASE # 33864. 25104

SUBMITTED TO:
Mr. Ken Vogel
Leggette Brashears & Graham
1210 West County Road East
Suite 700
St. Paul, MN 55112

LABORATORY CHRONICLE - TOTAL ORGANIC HALIDE IN WATER ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE EXTRACTION COMPLETED	DATE ANALYSIS COMPLETED
1.	WL00002	913008	10/05/98	10/14/98	10/14/98
2.	WL00001BP	913017	10/05/98	10/14/98	10/14/98

CORROSIVITY BY PH ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (units)	REPORTING LIMIT (units)
1.	WL00002	913008	7.14	0.000
2.	WL00001BP	913017	6.98	0.000

BRL = BELOW REPORTING LIMIT
NWR = NOT WITHIN RANGE

Reviewed by/ID#: S. Eulim/2326 Date: 10/14/98

IGNITABILITY ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (F)	REPORTING LIMIT (F)
1.	WL00002	913008	NWR	140
2.	WL00001BP	913017	NWR	140

BRL = BELOW REPORTING LIMIT
NWR = NOT WITHIN RANGE

Reviewed by/ID#: S. Bulem / 2326 Date: 10/14/98

REACTIVE CYANIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (mg/kg)
1.	WL00002	913008	BRL	125
2.	WL00001BP	913017	BRL	125

BRL = BELOW REPORTING LIMIT
NWR = NOT WITHIN RANGE

Reviewed by/ID#: S. Bulem 12326 Date: 10/14/98

REACTIVE SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (mg/kg)
1.	WL00002	913008	BRL	125
2.	WL00001BP	913017	BRL	125

BRL = BELOW REPORTING LIMIT
NWR = NOT WITHIN RANGE

Reviewed by/ID#: S Burlem 12326 Date: 10/14/98

TOTAL ORGANIC HALIDE IN WATER ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/L)	REPORTING LIMIT (mg/L)
1.	WL00002	913008	14.7	0.020
2.	WL00001BP	913017	0.442	0.020

BRL = BELOW REPORTING LIMIT
NWR = NOT WITHIN RANGE

Reviewed by/ID#: S. Burham / 2326 Date: 10/14/98

CORROSIVITY BY PH ANALYSIS

QUALITY CONTROL REPORT

CASE: 33864. 25104
MATRIX: WATER

Analyst:2326
Date Analyzed 10/07/98

BLANK SPIKE (BS) COMPUCHEM #: LCS

SPIKE ADDED (units)	BS CONC. (units)	BS % RECOVERY
9.070	9.041	100.0

ORIG. SAMPLE COMPUCHEM #: 913008
DUPLICATE(DUP.) COMPUCHEM #: 913020

SAMPLE CONC. (units)	DUP. CONC. (units)	RPD
7.140	7.201	1.000

The reporting limit for Corrosivity by pH is 0 units

BRL = BELOW REPORTING LIMIT
RPD = RELATIVE PERCENT DIFFERENCE
NWR = NOT WITHIN RANGE

IGNITABILITY ANALYSIS

QUALITY CONTROL REPORT

CASE: 33864. 25104
MATRIX: WATER

Analyst:2326
Date Analyzed 10/07/98

BLANK SPIKE (BS) COMPUCHEM #: 913021

SPIKE ADDED (F)	BS CONC. (F)
81 +\- 2	80.78

ORIG. SAMPLE COMPUCHEM #: 913008
DUPLICATE(DUP.) COMPUCHEM #: 913022

SAMPLE CONC. (F)	DUP. CONC. (F)	RPD
NWR	NWR	N/A

The reporting limit for Ignitability is 140 F

BRL = BELOW REPORTING LIMIT
RPD = RELATIVE PERCENT DIFFERENCE
NWR = NOT WITHIN RANGE

REACTIVE CYANIDE ANALYSIS

QUALITY CONTROL REPORT

CASE: 33864. 25104
MATRIX: WATER

Analyst:2326
Date Analyzed 10/13/98

BLANK SPIKE (BS) COMPUCHEM #: 913023

SPIKE ADDED (mg/kg)	BS CONC. (mg/kg)	BS % RECOVERY
40.00	11.99	30.00

ORIG. SAMPLE COMPUCHEM #: 913008
DUPLICATE (DUP.) COMPUCHEM #: 913024

SAMPLE CONC. (mg/kg)	DUP. CONC. (mg/kg)	RPD
BRL	BRL	0.0000

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/kg)
PBS	METHOD BLANK	BRL

The reporting limit for Reactive Cyanide is 125 mg/kg

BRL = BELOW REPORTING LIMIT
RPD = RELATIVE PERCENT DIFFERENCE
NWR = NOT WITHIN RANGE

REACTIVE SULFIDE ANALYSIS

QUALITY CONTROL REPORT

CASE: 33864. 25104
MATRIX: WATER

Analyst:2326
Date Analyzed 10/13/98

BLANK SPIKE (BS) COMPUCHEM #: 913023

SPIKE ADDED (mg/kg)	BS CONC. (mg/kg)	BS % RECOVERY
250.0	444.8	177.9

ORIG. SAMPLE COMPUCHEM #: 913008
DUPLICATE (DUP.) COMPUCHEM #: 913024

SAMPLE CONC. (mg/kg)	DUP. CONC. (mg/kg)	RPD
BRL	BRL	0.0000

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/kg)
PBS	METHOD BLANK	BRL

The reporting limit for Reactive Sulfide is 125 mg/kg

BRL = BELOW REPORTING LIMIT
RPD = RELATIVE PERCENT DIFFERENCE
NWR = NOT WITHIN RANGE

TOTAL ORGANIC HALIDE IN WATER ANALYSIS

QUALITY CONTROL REPORT

CASE: 33864. 25104
MATRIX: WATER

Analyst:2326
Date Analyzed 10/14/98

BLANK SPIKE (BS) COMPUCHEM #: LCS

SPIKE ADDED (mg/L)	BS CONC. (mg/L)	BS % RECOVERY
0.0500	0.0420	84.00

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
PBW	METHOD BLANK	BRL

The reporting limit for Total Organic Halide in Water is 0.02 mg/L

BRL = BELOW REPORTING LIMIT
RPD = RELATIVE PERCENT DIFFERENCE
NWR = NOT WITHIN RANGE

Compucheim Receiving Log

See note on COC # 0502A

nt: Chrysler (LBG)
er # 338164
ect: Dayton Thermal
ote # 98-7078
ount # 501112

Received on: 10.3.98 & 10/5/98 # of COC's 2
Delivered by: Fed Ex
Freight # 8061799837 07, 8061799836 92
Subcontract Y / (N)
TAT: Verbal _____ Hardcopy 10 day

PPS / (RFA) # 251 & 252 Page 1 of 1
Lab Instructions: TCL, VOH, SV, PCB / TCLP Metals / Corr / Ign / React / TOX

SDG	REQ	SAMPLE ID	CCN	AMOUNT / CONTAINER	PARAMETER	ANALYSIS CODE	LINE ITEM	SAMPLE DATE	MX	pH
25104	2	T093098	912811	2·6Oml	VOA	1356	1	10.3.98	NA	NA
25102	3	WS00001	912814	2·4oz; 3·8oz	Corr. Ign. React. V/SV, Acid Alkl, PCB, TOX	1317, 1254, 1316, 1356, 797, 2020, 748, 4003	1, 26, 28, 30, 3, 7, 11, 18, 32		30	
25103	4	↓	912834	1·8oz	TCLP metals	1186, 1143	13, 14			
25101	5	WL00001 DE 1016	912839	2·6Oml; 10AL; 1·500ml PL	Corr. Ign. React. V, SV, Acid Alkl, PCB, TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002	24, 26, 28, 1, 5, 9, 16, 20,		XX 10/15/98	NA
25104	6	WL00002	913008	6·AL; 1·500ml PL	Corr / Ign / React. SV/RCRA/PCB/TOX/	1317, 1254, 1316, 797, 2019, 748, 4002,	24, 26, 28, 5, 9, 16, 20		WA	NA
↓	7	WL00003 DE 1015	913017	2-6Oml; 1·500ml PL; 9AL	Corr / Ign / React V/SV/RCRA/PCB/TOX	1317, 1254, 1316, 1356, 797, 2019, 748, 4002,	24, 26, 28, 1, 5, 7, 16, 20,		WA	NA/CC

D Ellmore 10/5/98

Logged In By: Marlene D. Smith / Diane Ellmore
Order Entered By: Marlene D. Smith / Diane Ellmore
Cyanide samples checked for sulfide and chlorine Y (NA)
Received in good condition Y / (N) ID WL00003-4 (AL) broken
Holding Block(s): Counter / Page / CCN's

CHRYSLER CORPORATION

Chain-of-Custody

01502 A

CompuChem
501 Madison Avenue
Cary, NC 27513
Phone Number: 1-800-833-5097
Fax Number: (919) 379-4050

Project Name: Dayton Thermal Products
Site Location: 1600 Webster St. Dayton OH 45401
Site Code: SC001
RFA Number: YGOP980025I and 252
Chrysler PM: Gary Stanczak

Consultant: Leggette, Brashears & Graham, Inc.
Address: 1210 West County Road E Suite 700
Saint Paul MN 55112
Consultant PM: Ken Vogel
Phone: 651 490 1405 Fax: 651 490-1006

Turn-around Time Request:
24 calendar hrs.
48 calendar hrs.
72 hours
28 days
10 days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Matrix Codes
S - Soil
GW - Groundwater
Sed. - Sediment
O - Other (specify) Sump liquid, Rinsewater
SW - Surface Water
A - Air

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	8260 VOCs	8270 A SVOCs	RCRA Metals G/TCCO	TCLP Metals G/TCCO	8082C PCBs	9020A TOH Aqueous	9020A TOH Solid	Ch. 7 Corrosivity	Ch. 7 Ignitability	Volatiles pH < 2	Metals pH < 2	Cyanide pH > 12	Other ___	Remarks
WS00001	10-2-98	11:00	C	S	6	X	X	X	X	X		X	X	X					Solid Waste
WL00001	↓	12:00	G	O	13	X	X	X		X	X		X	X					Sump Liquid
WL00002	↓	12:50	G	O	13	X	X	X		X	X		X	X					Rinse water (Recv'd 2 VOAs broken & 1 AG broken upon receipt. MF 10/5)
T093098			-	O		X													Trip blank

See C.O.C. 1503 for additional analyses.

Sampler(s): Cindy Vandenhoost LJB

Cooler ID # 48 + 24

Is RFA sampling complete? Yes No

Bottles Relinquished under Airbill No.

Samples Relinquished under Airbill No. 806 7798 3692 (Fed Ex 7798 3701)

Operator @ 11:57 Temperature (corrected) 3.9 c

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Cindy Vandenhoost	10-2-98	1630				Yes No
						Yes No
			Received for Laboratory by: Marcenia J. Smith	10-3-98	11:45	(Yes) No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Spoke w/ Ken Vogel on 10/5/98 regarding sample ID WL00001. Sample is biphasic. Sample will be split by layer, top phase will be labeled WL00001TP, bottom phase will be labeled WL00001BP. Also told Ken about broken bottle & no VOCs for unsat) 10/5/98

Revision No. 1

Page 1 of 1

CHRYSLER CORPORATION

Chain-of-Custody

01503 A

CompuChem
501 Madison Avenue
Cary, NC 27513
Phone Number: 1-800-833-5097
Fax Number: (919) 379-4050

Project Name: Dayton Thermal Products
Site Location: 1600 Webster St Dayton OH 45401
Site Code: SC001
RFA Number: YGQP980025I and 252
Chrysler PM: Gary Stankzuk

Consultant: Lagette, Brashears & Graham, Inc.
Address: 1210 West County Road E
St. Paul MN 55112
Consultant PM: Ken Vogel
Phone: 651 490 1405 Fax: 651 490 1006

Turn-Around Time Request:
24 calendar hrs.
48 calendar hrs.
~~Normal~~
28 days
10 Days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify) Sump Liquid, Rinse water

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	Ch. 7 Reactivity Aqueous	Ch. 7 Reactivity Solid								Lab Use Only: Volatiles pH <2	Metals pH < 2	Cyanide pH > 12	Other ____	Remarks
WS00001	10-2-98	11:00	C	S			X												Solid waste
WL00001	↓	12:00	G	O		X													Sump Liquid
WL00002		12:50	G	O		X													Rinse water

See C-O-C 1502 for additional analyses.

and 8061 7783707 @ 11:57

Sampler(s)
Cindy Vanderhorst LJB

Cooler ID # 48 + 74

Is RFA sampling complete? Yes No

Bottles Reliquished under Airbill No.

Samples Relinquished under Airbill No. 8061 7983672

Temperature (corrected) 3.9 C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Cindy Vanderhorst	10-2-98	16:30				Yes No
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact? Yes No
Relinquished by:	Date:	Time:	Received for Laboratory by: Marlinda Smith	Date: 10/3/98	Time: 11:45	Custody Seal Intact? Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Samples not in a preserved cooler held for placed in walk in cooler because of breaking

COMPUCHEM
a division of Liberty Analytical
501 Madison Avenue
Cary, NC 27513

October 5, 1998

To: Kenny
Mark
Ricky

From: Diane

Re: Case 33864 SDG 25101 & 25104

Sample WL00001 is biphasic. We received 2- 60 ml vials for this sample. The top phase (TP) is CCN 912839 (SDG 25101). This sample matrix is 'XX' (oil). The bottom phase (BP) is CCN 913017 (SDG 25104). This sample matrix is water. Both CCN's appear on the bottles. Please take care in analyzing the correct phase with the correct CCN.