AR_N00247_000045
NTC SAN DIEGO
SSIC NO. 5090.3.A

1st Quarter 1998
Level C Data Package Deliverables
General Information
Sites 1, 3, and 8
Naval Training Center (NTC)
San Diego, California

Prepared for:

Remedial Project Manager
Commanding Officer
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, California 92132-5183

Contract No. N68711-96-D-2111 D.O. 0005
SOTA Project No. 98HW001

Prepared by:
SOTA Environmental Technology, Inc.
16980 Via Tazon, Suite 130
San Diego, California 92127-1633

SOTA
Environmental Technology, Inc.

Level C Data Package Deliverables

General Information

Project: 98HW001 NTC

APCL Service ID: 98-2332

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

3500

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: NTC /San Diego /98HW001

For SOTA Environmental

APCL Service No: 098-2332

1. Sample Identification

The sample identifications are listed in the following table:

SOTA Environmental Sample ID	APCL Sample ID
ES-6D	98-02332-2
ES-12S	98-02332-8
ES-13D	98-02332-9
ES-13S	98-02332-10
ES-7D	98-02332-3
ES-7S	98-02332-4
Field Blank	98-02332-5
DMW-5	98-02332-1
ES-11D	98-02332-6
ES-11S	98-02332-7
ES-14S	98-02332-12
ES-14D	98-02332-11
TRIP BLANK	98-02332-13

2. Analytical Methodology

Samples are analyzed by EPA methods

8260 (Volatile organics),
8270 (Semi-volatile organics, ABN fractions),
7470 (Mercury, Hg),
160.1 (Solids, Total Dissolved (TDS)),
6020 (Barium, Ba),
6020 (Copper, Cu),
6020 (Leab, Pb),
6020 (Nickel, Ni),
6020 (Silver, Ag),
6020 (Zinc, Zn),
300.0 (Chloride Cl^-),
300.0 (Sulfate (SO_4^{--})),
300.0 (Nitrate (NO_3^-) as N),
SM4500NO3D (Nitrate (NO_3^-) as N),

3. Holding Time

Samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Tele-log

None

3501

5. Note

Barium, copper, lead, nickel, silver, and zinc subcontracted to Columbia Analytical Services.

5. Anomaly

(1) SW8270:

Samples ES-7D, ES-7S, ES-11S, and ES-14D were analyzed twice. In the first analysis, surrogate terphenyl-d14 recoveries were higher than the 33-140% control limit for these samples. Surrogate recoveries in the second analysis were within the control limit. Both results are reported in this package.

(2) Nitrate:

Two methods were used to analyze nitrate: SM4500D and EPA 300.0. Holding times were met when analzed by SM4500D. However, holding times were exceeded when analyzed by EPA300.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

3502

APCL

Applied Physics Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: SOTA ENVIR. TECH. Contact: JOHN MCANDREW Tel #: 619 485 8100 Fax #: 619-850-0812

Address: City: State: Zip code:

Bill to:

Project Name/Code NTC Job # 981tw001 P.O. #

Project Address SAN DIEGO, CA APCL Quotation #

Due Date: ☐regular ☐rush: ___ days ___ hours Sampled by: MIKE SAYRE

Analysis Items

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOC (8260B)	SVOC (8270C)	METALS	Hg	TPS	NITRATE CHLORIDE, SULFATE						Remarks
0051TB101	TRIP BLANK	4/7/98	9:00	WATER	HCl	1	X											
~~0051EB101~~																		
0051FB101	FIELD BLANK	4/8/98	14:00	WATER	HCl	1	X											
0051FB102						1		X										
0051FB103						1			X									
0051FB104						1				X								
0051FB105						1					X	X						

White – With report
Yellow – Lab copy
Pink – Originator

2332

QC Requirement: ☐Regular; ☐QA/QC Report; ☐WIP; ☐Raw Data; ☐Extended Raw Data ☐CLP; ☐ACE ☐AFCEE ☐NEESA ___ (E, C or D); ☐Other _____ (Please specify)

Sample Disposal: ☐Return ☐Disposal by APCL ☐Hold for _____ days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: ☐Intact; ☐Broken. Cooler Seal: ☐Intact; ☐Broken; ☐ None. Tag # _____ Temperature: ☐ Room ☐Cold (____ °C).

Relinquished by M. SAYRE Date/Time 4/8/98 16:00 Received by [signature] Date/Time 4/8/98 17:24

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the [illegible] terms provided in the current APCL price schedules will be followed. APCL r[illegible] the right to terminate [illegible]ice or withhold delivery of any reports, if in APCL's sole discretion the terms of [illegible]ject have been broken.

Chain of Custody

APCL
Analytical Physical Chemistry Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Please Print in pen

Client: SOTA ENVIR. TECH. Contact: JOHN MCANDREW Tel #: 619-485-8100 Fax #:

Address: City: State: Zip code:

Bill to:

Project Name/Code NTC Job # 96HW001 P.O. #

Project Address SAN DIEGO APCL Quotation #

Due Date: ☐regular ☐rush: ___ days ___ hours Sampled by: MIKE SAYRE

Analysis Items: NTC (8260B) 10 TPH; SVOC (8270B); METALS; Hg; TDS; NITRATE, CHLORIDE, SULFATE

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	NTC (8260B) 10 TPH	SVOC (8270B)	METALS	Hg	TDS	NITRATE	CHLORIDE, SULFATE	Remarks
005101801 x	ES-14S	4/8/98	1000	GW	HCl	1	X							
005101802 x					HCl	1	X							
005101803 x					—	1		X						
005101804 x					HNO_3	1			X					
00510805 x					HNO_3	1				X				
005101806 x					—	1					X	X		
005101901 x	ES-14D		1040		HCl	1	X							
005101902 x					HCl	1	X							
005101903 x					—	1		X						
005101904 x					HNO_3	1			X					
005101905 x					HNO_3	1				X				
005101906 x					—	1					X	X		
~~005101907~~														

2332

QC Requirement: ☐Regular; ☐QA/QC Report; ☐WIP; ☐Raw Data; ☐Extended Raw Data ☐CLP; ☐ACE ☐AFCEE ☐NEESA ___ (E, C or D); ☐Other _____ (Please specify)

Sample Disposal: ☐Return ☐Disposal by APCL ☐Hold for _____ days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: ☐Intact; ☐Broken. Cooler Seal: ☐Intact; ☐Broken; ☐ None. Tag # _____ Temperature: ☐ Room ☐Cold (____ °C).

Relinquished by M. SAYRE Date/Time 4/8/96 / 16 00 Received by [signature] Date/Time 4/8/98 1/22

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

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APCL

Applied Chemical Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: SOTA ENVIR. TECH. Contact: JOHN McANDREW Tel #: 619 485-8100 Fax #:

Address: City: State: Zip code:

Bill to:

Project Name/Code Job #98HW001 P.O. #

Project Address APCL Quotation #

Due Date: ☐regular ☐rush: ____ days ____ hours Sampled by:

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.		Sample Description	Date Collected	Time	Sample Matrix	Preservation	# of Containers	VOC 8260B	SVOC 8270C	METALS	Hg	TDS	SULFATE CHLORIDE & NITRATE						Remarks
00501504	X	DMW-5	4/7/98		GW	HNO_3	1			X									
00501505	X					HNO_3	1				X								
00501506	X					—	1					X	X						
00501601	X	ES-11D				HCl	1	X											
00501602	X					HCl	1												
00501603	X					—	1		X										
00501604	X					HNO_3	1			X									
00501605	X					HNO_3	1				X								
00501606	X					—	1					X	X						
00501701	X	ES-11S				HCl	1	X											
00501702	X					HCl	1												
00501703	X					—	1		X										
00501704	X					HNO_3	1			X									
00501705	X					HNO_3	1				X								
00501706	X					—	1					X	X						

QC Requirement: ☐Regular; ☐QA/QC Report; ☐WIP; ☐Raw Data; ☐Extended Raw Data ☐CLP; ☐ACE ☐AFCEE ☐NEESA ___(E, C or D); ☐Other _____(Please specify)

Sample Disposal: ☐Return ☐Disposal by APCL ☐Hold for _____ days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: ☐Intact; ☐Broken. Cooler Seal: ☐Intact; ☐Broken; ☐ None. Tag # _____ Temperature: ☐ Room ☐Cold (_____ °C).

Relinquished by M. SAYRE Date/Time 4/8/98 1600 Received by Date/Time 4/8/98 1724

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the standard terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of this project have been broken.

Applied P & Ch Laboratories

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: SOTA ENVIR. TECH. Contact: JOHN MCANDREW Tel #: 619 485 8100 Fax #: 619 445 0812

Address: City: State: Zip code:

Bill to:

Project Name/Code NTC Job # 98HW001 P.O. #

Project Address APCL Quotation #

Due Date: ☐regular ☐rush: ___ days ___ hours Sampled by: MIKE SAYRE

Analysis Items

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOCs (8260)	SVOCs (8270)	METALS	Hg	TDS	NO3, CHLORIDE	Remarks
005101301	ES-75	4/7/98	1340	GW	HCl	1	X						
005101302					HCl	1	X						
005101303					—	1		X					
005101304					HNO_3	1			X				
005101305					HNO_3	1				X			
005101306					—	1					X	X	
~~005101401~~	ES-105		1440		HCl	1	X						
005101402					HCl	1	X						
005101403						1		X					
005101404					HNO_3	1			X				
005101405					HNO_3	1				X			
~~005101406~~						1					X	X	
005101501	DMW-5				HCl	1	X						
005101502					HCl	1	X						
005101503					—	1		X					

NO SAMPLE

QC Requirement: ☐Regular; ☐QA/QC Report; ☐WIP; ☐Raw Data; ☐Extended Raw Data ☐CLP; ☐ACE ☐AFCEE ☐NEESA ___(E, C or D); ☐Other _____(Please specify)

Sample Disposal: ☐Return ☐Disposal by APCL ☐Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐Intact; ☐Broken. Cooler Seal: ☐Intact; ☐Broken; ☐ None . Tag # _____ Temperature: ☐ Room ☐Cold (_____ °C).

Relinquished by M. SAYRE Date/Time 4/8/98 / Received by Date/Time 4/8/98 1724

Relinquished by Date/Time / Received by Date/Time /

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Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: SOTA ENVIR. TECH. Contact: JOHN McANDREW Tel #: 619 485 8100 Fax #:

Address: City: State: Zip code:

Bill to:

Project Name/Code Job # P.O. #

Project Address APCL Quotation #

Due Date: ☐regular ☐rush: ____ days ____ hours Sampled by:

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOCs (8260)	SVOCs (8270)	METALS	Hg	TDS	NITRATE CHLORIDE SO4						Remarks
005101004 X	ES-13D	4/7/98	1115	GW	HNO_3	1	X		X									
005101005 X					HNO_3	1				X								
005101006 X					—	1					X	X						
005101101 X	ES-13S		1150		HCl	1	X											
005101102 X					HCl	1												
005101103 X					—	1		X										
005101104 X					HNO_3	1			X									
005101105 X					HNO_3	1				X								
005101106 X					—	1					X	X						
005101201 X	ES-7D		1310		HCl	1	X											
005101202 X					HCl	1												
005101203 X					—	1		X										
005101204 X					HNO_3	1			X									
005101205 X					HNO_3	1				X								
005101206 X					—	1					X	X						

QC Requirement: ☐Regular; ☐QA/QC Report; ☐WIP; ☐Raw Data; ☐Extended Raw Data ☐CLP; ☐ACE ☐AFCEE ☐NEESA ___ (E, C or D); ☐Other _____ (Please specify)

Sample Disposal: ☐Return ☐Disposal by APCL ☐Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐Intact; ☐Broken. Cooler Seal: ☐Intact; ☐Broken; ☐ None . Tag # _____ Temperature: ☐ Room ☐Cold (_____ °C).

Relinquished by M. Sayre Date/Time 4/8/98 1600 Received by [signature] Date/Time 4-8-98 1724

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

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APCL

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Page 1 of 6

Client: SOTA ENVIR. TECH. Contact: JOHN McANDREW Tel #: 619-485-8100 Fax #: 619-485-0842

Address: 16980 VIA TAZON, #180 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SOTA

Project Name/Code NTC Job # 9811W001 P.O. #

Project Address SAN DIEGO APCL Quotation #

Due Date: ☐ regular ☐ rush: ___ days ___ hours Sampled by: MIKE SAYRE

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOCs (8260B)	SVOCs (8270C)	METALS (Ba, Cu, Pb, Ni, Ag, Zn)	MERCURY	TDS (160.1)	NITRATE CHLORIDE, SULFATE						Remarks
005100801	X ES-6D	4/7/98	920	GW	HCl	1	X											
005100802	X				HCl	1	X											
005100803	X				—	1		X										
005100804	X				HNO_3	1			X									
005100805	X				HNO_3	1				X								
005100806	X				—	1					X	X						
005100901	X ES-12S		950		HCl	1	X											
005100902	X				HCl	1	X											
005100903	X				—	1		X										
005100904	X				HNO_3	1			X									
005100905	X				HNO_3	1				X								
005100906	X				—	1					X	X						
005101001	X ES-13D		11:15		HCl		X											
05101002	X				HCl		X											
05101003	X							X										

2332

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☐ Other _____ (Please specify)

Sample Disposal: ☐ Return ☐ Disposal by APCL ☐ Hold for _____ days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: ☐ Intact; ☐ Broken. Cooler Seal: ☐ Intact; ☐ Broken; ☐ None. Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C).

Relinquished by [signature] M. SAYRE Date/Time 4/8/98 16:00 Received by [signature] Date/Time 4/8/98 1724

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

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APCL Form 4-101, Ver. 4.0, Dec. 20, 1994. Root-file:[CUST.DATA.LAB]CHAIN_ROOT.TEX File:[CUST.DATA.LAB]CHAIN4.TEX

Applied P & Ch Laboratory
13760 Magnolia Ave., Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: 2332 Client Name/Project: SOTA ENVIR. TECH / NT

1. Sample Arrival

Date/Time Received 040898/1724 Date/Time Opened 040898/1724 By (name): Denise Valencia
Shipping: _____ Air Bill#: _____ Company: _____
Custody Transfer: ☐ Client ☐ Courier/Fast ☐ UPS ☐ US Mail ☐ FedEx ☒ APCL Empl: Denis

2. Chain-of-Custody (CoC)

☒ With Samples? ☐ Faxed? ☒ Client has Copy? ☒ Signed, dated? By: ~~DLM~~
☒ Project ID? ☒ Analyses Clear? ☐ Hold Samples? #on Hold _____ # Received _____
☐ CoC/Docs Zip-Locked under lid? ☐ Compos.#: _ ☐ #Samples OK? _____
☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs): _____

3. Shipping Container/Cooler

☐ Cooler Used? # of _____ Cooled by: ☐ Ice ☐ Blue Ice ☐ Dry Ice ☐ None
Temp? _____ °C °F Measured: ☐ Blank? ☐ Cooler? ☐ Other? _____
Cooler Custody Seal? ☐ Absent ☐ Intact ☐ Tampered? Custody Seal#: _____

4. Sample Preservation

☐ pH on label? ☐ Correctly? ☐ pH <2 ☐ pH >12
If Not, pH = _____ Preserved by: ☐ Client ☐ APCL ☐ Third Party _____
Initialed: _____ Use pH login checklist for multiple samples. ☐ Anomaly? _____

5. Holding-time Requirements

☐ pH 24hr ☐ BACT 6/24hr ☐ Cr^{VI} 24hr ☐ NO_3^- 48hr ☐ BOD 48hr ☐ SVOCs 7day-Extr
☐ VOCs 14day ☐ Cl_2 24hr ☐ Turbidity
☐ HT Expired? ☐ Client notified?* Response? _____

6. Sample Container Condition

☒ Intact? ☐ Broken? ☐ Documented? Number: 61 ☒ from Client ☐ from APCL
Type: ☒ plastic ☒ glass ☐ Tube: brass/SS ☐ Tedlar Bag ☐ Septum Reqd?
☒ Quantity OK? ☐ Leaking? ☐ Anomaly? ☐ Action: _____
☒ Caps tight? ☐ Air Bubbles? ☐ Anomaly? ☐ Action: _____
Labels: ☒ Unique ID? ☒ Date/Time ☐ Preserved? ☐ Action: _____

7. Turn Around Time

☐ RUSH TAT: _____ ☒ Std (6 days) ☐ Not Marked ☐ Problem? ☐ Action: _____

8. Sample Matrix

☐ Drinking H_2O ☐ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: _____
☒ Ground H_2O ☐ Sludge ☐ Filter ☐ Oil/Petrol ☐ Paint ☐ Waste ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☒ ALL OK? (if not, attach docs) ☐ Client Contact? (Name:_____)Date/Time:_____

Received/Checked by: DLM Date: 08 Apr 1998 Time: 19:30 p.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

DocumentFile: [neal.textfiles]samprcl.tex.

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont-tainer	Preser-vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days
1	ES-6D ✓	Voc	98-02332-2-α	W	V	C	40	2	G	040798	N	0	9
	ES-6D	SVoc	98-02332-2-β	W	G		1000	1	G	040798	N	0	9
	ES-6D	Metal	98-02332-2-γ	W	P	N	1000	1	G	040798	N	0	9
	ES-6D	Merc	98-02332-2-δ	W	P	N	500	1	G	040798	N	0	9
	ES-6D	WET	98-02332-2-ζ	W	P		500	1	G	040798	N	0	9
2	ES-12S ✓	Voc	98-02332-8-α	W	V	C	40	2	G	040798	N	0	9
	ES-12S	SVoc	98-02332-8-β	W	G		1000	1	G	040798	N	0	9
	ES-12S	Metal	98-02332-8-γ	W	P	N	1000	1	G	040798	N	0	9
	ES-12S	Merc	98-02332-8-δ	W	P	N	500	1	G	040798	N	0	9
	ES-12S	WET	98-02332-8-ζ	W	P		500	1	G	040798	N	0	9
3	ES-13D ✓	Voc	98-02332-9-α	W	V	C	40	2	G	040798	N	0	9
	ES-13D	SVoc	98-02332-9-β	W	G		1000	1	G	040798	N	0	9
	ES-13D	Metal	98-02332-9-γ	W	P	N	1000	1	G	040798	N	0	9
	ES-13D	Merc	98-02332-9-δ	W	P	N	500	1	G	040798	N	0	9
	ES-13D	WET	98-02332-9-ζ	W	P		500	1	G	040798	N	0	9
4	ES-13S ✓	Voc	98-02332-10-α	W	V	C	40	2	G	040798	N	0	9
	ES-13S	SVoc	98-02332-10-β	W	G		1000	1	G	040798	N	0	9
	ES-13S	Metal	98-02332-10-γ	W	P	N	1000	1	G	040798	N	0	9
	ES-13S	Merc	98-02332-10-δ	W	P	N	500	1	G	040798	N	0	9
	ES-13S	WET	98-02332-10-ζ	W	P		500	1	G	040798	N	0	9
5	ES-7D ✓	Voc	98-02332-3-α	W	V	C	40	2	G	040798	N	0	9
	ES-7D	SVoc	98-02332-3-β	W	G		1000	1	G	040798	N	0	9
	ES-7D	Metal	98-02332-3-γ	W	P	N	1000	1	G	040798	N	0	9
	ES-7D	Merc	98-02332-3-δ	W	P	N	500	1	G	040798	N	0	9
	ES-7D	WET	98-02332-3-ζ	W	P		500	1	G	040798	N	0	9
6	ES-7S ✓	Voc	98-02332-4-α	W	V	C	40	2	G	040798	N	0	9
	ES-7S	SVoc	98-02332-4-β	W	G		1000	1	G	040798	N	0	9
	ES-7S	Metal	98-02332-4-γ	W	P	N	1000	1	G	040798	N	0	9
	ES-7S	Merc	98-02332-4-δ	W	P	N	500	1	G	040798	N	0	9
	ES-7S	WET	98-02332-4-ζ	W	P		500	1	G	040798	N	0	9
7	ES-10S ✓	Voc	98-02332-5-α	W	V	C	40	1	G	040798	N	0	9
	ES-10S	SVoc	98-02332-5-β	W	G		1000	1	G	040798	N	0	9
	ES-10S	Metal	98-02332-5-γ	W	P	N	1000	1	G	040798	N	0	9
	ES-10S	Merc	98-02332-5-δ	W	P	N	500	1	G	040798	N	0	9
	ES-10S	WET	98-02332-5-ζ	W	P		500	1	G	040798	N	0	9
8	DMW-5 ✓	Voc	98-02332-1-α	W	V	C	40	2	G	040798	N	0	9
	DMW-5	SVoc	98-02332-1-β	W	G		1000	1	G	040798	N	0	9
	DMW-5	Metal	98-02332-1-γ	W	P	N	1000	1	G	040798	N	0	9
	DMW-5	Merc	98-02332-1-δ	W	P	N	500	1	G	040798	N	0	9
	DMW-5	WET	98-02332-1-ζ	W	P		500	1	G	040798	N	0	9
9	ES-11D ✓	Voc	98-02332-6-α	W	V	C	40	2	G	040798	N	0	9
	ES-11D	SVoc	98-02332-6-β	W	G		1000	1	G	040798	N	0	9

	ES-11D	Metal	98-02332-6-γ	W	P	N	1000	1	G	040798	N	0	9	☐
	ES-11D	Merc	98-02332-6-δ	W	P	N	500	1	G	040798	N	0	9	☐
	ES-11D	WET	98-02332-6-ζ	W	P		500	1	G	040798	N	0	9	☐
10	ES-11S ✓	Voc	98-02332-7-α	W	V	C	40	2	G	040798	N	0	9	☐
	ES-11S	SVoc	98-02332-7-β	W	G		1000	1	G	040798	N	0	9	☐
	ES-11S	Metal	98-02332-7-γ	W	P	N	1000	1	G	040798	N	0	9	☐
	ES-11S	Merc	98-02332-7-δ	W	P	N	500	1	G	040798	N	0	9	☐
	ES-11S	WET	98-02332-7-ζ	W	P		500	1	G	040798	N	0	9	☐
11	ES-14S ✓	Voc	98-02332-12-α	W	V	C	40	2	G	040898	N	0	9	☐
	ES-14S	SVoc	98-02332-12-β	W	G		1000	1	G	040898	N	0	9	☐
	ES-14S	Metal	98-02332-12-γ	W	P	N	1000	1	G	040898	N	0	9	☐
	ES-14S	Merc	98-02332-12-δ	W	P	N	500	1	G	040898	N	0	9	☐
	ES-14S	WET	98-02332-12-ζ	W	P		500	1	G	040898	N	0	9	☐
12	ES-14D ✓	Voc	98-02332-11-α	W	V	C	40	2	G	040898	N	0	9	☐
	ES-14D	SVoc	98-02332-11-β	W	G		1000	1	G	040898	N	0	9	☐
	ES-14D	Metal	98-02332-11-γ	W	P	N	1000	1	G	040898	N	0	9	☐
	ES-14D	Merc	98-02332-11-δ	W	P	N	500	1	G	040898	N	0	9	☐
	ES-14D	WET	98-02332-11-ζ	W	P		500	1	G	040898	N	0	9	☐
13	TRIP BLANK ✓	WET	98-02332-13	W	V		40	1	G	040798	N	0	9	☐

Part 3: Analysis Information

Test Items:

- ☒ *8260* Volatile organics ✓
- ☒ *8270* Semi-volatile organics, ABN fractions ✓
- ☒ *245.1/7470/7471* Mercury, Hg
- ☒ *160.1* Solids, Total Dissolved (TDS)
- ☒ ~~*353.3*~~ 300 Nitrate (NO_3^-) as N Cd reduction
- ☒ ~~*325.3/9252A*~~ 300 Chloride Cl^-
- ☒ ~~*375.4/9038*~~ 300 Sulfate (SO_4^{--})
- ☒ *200.7/6010* Barium, Ba, by ICP
- ☒ *200.7/6010* Copper, Cu, by ICP
- ☒ *200.7/6010* Lead, Pb, by ICP
- ☒ *200.7/6010* Nickel, Ni, by ICP
- ☒ *200.7/6010* Silver, Ag, by ICP
- ☒ *200.7/6010* Zinc, Zn, by ICP

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	8260	8270	HG	TDS	NITRATE	CHLORIDE	SULFATE	BA
1	ES-6D	Voc	98-02332-2-α	W	X							
	ES-6D	SVoc	98-02332-2-β	W		X						
	ES-6D	Metal	98-02332-2-γ	W								X

Level C Data Package Deliverables

Volatile Organics

Applied P & Ch Laboratory

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/12/98
Project ID:	NTC	Service ID:	982332	Collected by:	
		Lab Sample ID:	98G1861-MB-01	Received Date:	04/12/98
Sample ID:	**98G1861-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/12/98	Anal. Date:	04/12/98
Batch No:	98G1861	Prep. No:	–	Anal. Time:	16:27
Data File Name:	G1861K01	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	< 5	U
2	Bromobenzene	108-86-1	µg/L	5	< 5	U
3	Bromochloromethane	74-97-5	µg/L	5	< 5	U
4	Bromodichloromethane	75-27-4	µg/L	5	< 5	U
5	Bromoform	75-25-2	µg/L	5	< 5	U
6	Bromomethane	74-83-9	µg/L	5	< 5	U
7	n-Butylbenzene	104-51-8	µg/L	5	< 5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	< 5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	< 5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	< 5	U
11	Chlorobenzene	108-90-7	µg/L	5	< 5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	< 5	U
13	Chloroethane	75-00-3	µg/L	5	< 5	U
14	Chloroform	67-66-3	µg/L	5	< 5	U
15	Chloromethane	74-87-3	µg/L	5	< 5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	< 5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	< 5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	< 5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	< 5	U
20	Dibromomethane	74-95-3	µg/L	5	< 5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	< 5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	< 5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	< 5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	< 5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	< 5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	< 5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	< 5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	< 5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	< 5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	< 5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	< 5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	< 5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	< 5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	< 5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	< 5	U
36	Ethylbenzene	100-41-4	µg/L	5	< 5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	< 5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	< 5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	< 5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	99
2	Dibromofluoromethane	1868-53-7	86-117	88
3	1,2-Dichloroethane-d4	17060-07-0	80-119	80
4	Toluene-d8	2037-26-5	88-109	103
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	107
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	101
3	Fluorobenzene	462-06-6	50-200	127
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/13/98
Project ID:	NTC	Service ID:	982332	Collected by:	
		Lab Sample ID:	98G1861-MB-02	Received Date:	04/13/98
Sample ID:	98G1861-MB-02	Sample Matrix	Water	Moisture %:	-
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/13/98	Anal. Date:	04/13/98
Batch No:	98G1861	Prep. No:	-	Anal. Time:	05:15
Data File Name:	G1861K02	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	<5	U
2	Bromobenzene	108-86-1	µg/L	5	<5	U
3	Bromochloromethane	74-97-5	µg/L	5	<5	U
4	Bromodichloromethane	75-27-4	µg/L	5	<5	U
5	Bromoform	75-25-2	µg/L	5	<5	U
6	Bromomethane	74-83-9	µg/L	5	<5	U
7	n-Butylbenzene	104-51-8	µg/L	5	<5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	<5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	<5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	<5	U
11	Chlorobenzene	108-90-7	µg/L	5	<5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	<5	U
13	Chloroethane	75-00-3	µg/L	5	<5	U
14	Chloroform	67-66-3	µg/L	5	<5	U
15	Chloromethane	74-87-3	µg/L	5	<5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	<5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	<5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	<5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	<5	U
20	Dibromomethane	74-95-3	µg/L	5	<5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	<5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	<5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	<5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	<5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	<5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	<5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	<5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	<5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	<5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	<5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	<5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	<5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	<5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	<5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	<5	U
36	Ethylbenzene	100-41-4	µg/L	5	<5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	<5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	<5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	90
2	Dibromofluoromethane	1868-53-7	86-117	89
3	1,2-Dichloroethane-d4	17060-07-0	80-119	85
4	Toluene-d8	2037-26-5	88-109	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	106
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	105
3	Fluorobenzene	462-06-6	50-200	125
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayr
		Lab Sample ID:	98-2332-1	Received Date:	04/08/98
Sample ID:	DMW-5	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/12/98	Anal. Date:	04/12/98
Batch No:	98G1861	Prep. No:	-	Anal. Time:	21:00
Data File Name:	2332-01	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	< 5	U
2	Bromobenzene	108-86-1	µg/L	5	< 5	U
3	Bromochloromethane	74-97-5	µg/L	5	< 5	U
4	Bromodichloromethane	75-27-4	µg/L	5	< 5	U
5	Bromoform	75-25-2	µg/L	5	< 5	U
6	Bromomethane	74-83-9	µg/L	5	< 5	U
7	n-Butylbenzene	104-51-8	µg/L	5	< 5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	< 5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	< 5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	< 5	U
11	Chlorobenzene	108-90-7	µg/L	5	< 5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	< 5	U
13	Chloroethane	75-00-3	µg/L	5	< 5	U
14	Chloroform	67-66-3	µg/L	5	< 5	U
15	Chloromethane	74-87-3	µg/L	5	< 5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	< 5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	< 5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	< 5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	< 5	U
20	Dibromomethane	74-95-3	µg/L	5	< 5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	< 5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	< 5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	< 5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	< 5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	< 5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	< 5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	< 5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	< 5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	< 5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	< 5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	< 5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	< 5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	< 5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	< 5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	< 5	U
36	Ethylbenzene	100-41-4	µg/L	5	< 5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	< 5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	< 5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	< 5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	101
2	Dibromofluoromethane	1868-53-7	86-117	99
3	1,2-Dichloroethane-d4	17060-07-0	80-119	99
4	Toluene-d8	2037-26-5	88-109	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	99
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	94
3	Fluorobenzene	462-06-6	50-200	117
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayı
		Lab Sample ID:	98-2332-2	Received Date:	04/08/98
Sample ID:	**ES-6D**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/12/98	Anal. Date:	04/12/98
Batch No:	98G1861	Prep. No:	-	Anal. Time:	21:38
Data File Name:	2332-02	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	<5	U
2	Bromobenzene	108-86-1	µg/L	5	<5	U
3	Bromochloromethane	74-97-5	µg/L	5	<5	U
4	Bromodichloromethane	75-27-4	µg/L	5	<5	U
5	Bromoform	75-25-2	µg/L	5	<5	U
6	Bromomethane	74-83-9	µg/L	5	<5	U
7	n-Butylbenzene	104-51-8	µg/L	5	<5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	<5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	<5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	<5	U
11	Chlorobenzene	108-90-7	µg/L	5	<5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	<5	U
13	Chloroethane	75-00-3	µg/L	5	<5	U
14	Chloroform	67-66-3	µg/L	5	<5	U
15	Chloromethane	74-87-3	µg/L	5	<5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	<5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	<5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	<5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	<5	U
20	Dibromomethane	74-95-3	µg/L	5	<5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	<5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	<5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	<5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	<5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	<5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	<5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	<5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	<5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	<5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	<5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	<5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	<5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	<5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	<5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	<5	U
36	Ethylbenzene	100-41-4	µg/L	5	<5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	<5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	<5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	0.9	J
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	98
2	Dibromofluoromethane	1868-53-7	86-117	96
3	1,2-Dichloroethane-d4	17060-07-0	80-119	98
4	Toluene-d8	2037-26-5	88-109	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	103
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	101
3	Fluorobenzene	462-06-6	50-200	124
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-3	Received Date:	04/08/98
Sample ID:	ES-7D	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/12/98	Anal. Date:	04/12/98
Batch No:	98G1861	Prep. No:	-	Anal. Time:	22:16
Data File Name:	2332-03	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	<5	U
2	Bromobenzene	108-86-1	µg/L	5	<5	U
3	Bromochloromethane	74-97-5	µg/L	5	<5	U
4	Bromodichloromethane	75-27-4	µg/L	5	<5	U
5	Bromoform	75-25-2	µg/L	5	<5	U
6	Bromomethane	74-83-9	µg/L	5	<5	U
7	n-Butylbenzene	104-51-8	µg/L	5	<5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	<5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	<5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	<5	U
11	Chlorobenzene	108-90-7	µg/L	5	<5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	<5	U
13	Chloroethane	75-00-3	µg/L	5	<5	U
14	Chloroform	67-66-3	µg/L	5	<5	U
15	Chloromethane	74-87-3	µg/L	5	<5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	<5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	<5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	<5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	<5	U
20	Dibromomethane	74-95-3	µg/L	5	<5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	<5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	<5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	<5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	<5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	<5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	<5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	<5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	<5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	<5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	<5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	<5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	<5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	<5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	<5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	<5	U
36	Ethylbenzene	100-41-4	µg/L	5	<5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	<5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	<5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	99
2	Dibromofluoromethane	1868-53-7	86-117	97
3	1,2-Dichloroethane-d4	17060-07-0	80-119	97
4	Toluene-d8	2037-26-5	88-109	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	99
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	98
3	Fluorobenzene	462-06-6	50-200	119
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

35-C

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayr
		Lab Sample ID:	98-2332-4	Received Date:	04/08/98
Sample ID:	ES-7S	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/12/98	Anal. Date:	04/12/98
Batch No:	98G1861	Prep. No:	–	Anal. Time:	22:54
Data File Name:	2332-04	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	<5	U
2	Bromobenzene	108-86-1	µg/L	5	<5	U
3	Bromochloromethane	74-97-5	µg/L	5	<5	U
4	Bromodichloromethane	75-27-4	µg/L	5	<5	U
5	Bromoform	75-25-2	µg/L	5	<5	U
6	Bromomethane	74-83-9	µg/L	5	<5	U
7	n-Butylbenzene	104-51-8	µg/L	5	<5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	<5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	<5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	<5	U
11	Chlorobenzene	108-90-7	µg/L	5	<5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	<5	U
13	Chloroethane	75-00-3	µg/L	5	<5	U
14	Chloroform	67-66-3	µg/L	5	<5	U
15	Chloromethane	74-87-3	µg/L	5	<5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	<5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	<5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	<5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	<5	U
20	Dibromomethane	74-95-3	µg/L	5	<5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	<5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	<5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	<5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	<5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	<5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	<5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	<5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	<5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	<5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	<5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	<5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	<5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	<5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	<5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	<5	U
36	Ethylbenzene	100-41-4	µg/L	5	<5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	<5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	<5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	96
2	Dibromofluoromethane	1868-53-7	86-117	92
3	1,2-Dichloroethane-d4	17060-07-0	80-119	94
4	Toluene-d8	2037-26-5	88-109	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	99
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	98
3	Fluorobenzene	462-06-6	50-200	119
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayr
		Lab Sample ID:	98-2332-5	Received Date:	04/08/98
Sample ID:	**Field Blank**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/12/98	Anal. Date:	04/12/98
Batch No:	98G1861	Prep. No:	-	Anal. Time:	23:33
Data File Name:	2332-05	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	<5	U
2	Bromobenzene	108-86-1	µg/L	5	<5	U
3	Bromochloromethane	74-97-5	µg/L	5	<5	U
4	Bromodichloromethane	75-27-4	µg/L	5	<5	U
5	Bromoform	75-25-2	µg/L	5	<5	U
6	Bromomethane	74-83-9	µg/L	5	<5	U
7	n-Butylbenzene	104-51-8	µg/L	5	<5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	<5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	<5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	<5	U
11	Chlorobenzene	108-90-7	µg/L	5	<5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	<5	U
13	Chloroethane	75-00-3	µg/L	5	<5	U
14	Chloroform	67-66-3	µg/L	5	<5	U
15	Chloromethane	74-87-3	µg/L	5	<5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	<5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	<5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	<5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	<5	U
20	Dibromomethane	74-95-3	µg/L	5	<5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	<5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	<5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	<5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	<5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	<5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	<5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	<5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	<5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	<5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	<5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	<5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	<5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	<5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	<5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	<5	U
36	Ethylbenzene	100-41-4	µg/L	5	<5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	<5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	<5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	94
2	Dibromofluoromethane	1868-53-7	86-117	93
3	1,2-Dichloroethane-d4	17060-07-0	80-119	91
4	Toluene-d8	2037-26-5	88-109	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	102
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	100
3	Fluorobenzene	462-06-6	50-200	123
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-6	Received Date:	04/08/98
Sample ID:	ES-11D	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/13/98	Anal. Date:	04/13/98
Batch No:	98G1861	Prep. No:	-	Anal. Time:	05:54
Data File Name:	2332-06	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	<5	U
2	Bromobenzene	108-86-1	µg/L	5	<5	U
3	Bromochloromethane	74-97-5	µg/L	5	<5	U
4	Bromodichloromethane	75-27-4	µg/L	5	<5	U
5	Bromoform	75-25-2	µg/L	5	<5	U
6	Bromomethane	74-83-9	µg/L	5	<5	U
7	n-Butylbenzene	104-51-8	µg/L	5	<5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	<5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	<5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	<5	U
11	Chlorobenzene	108-90-7	µg/L	5	<5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	<5	U
13	Chloroethane	75-00-3	µg/L	5	<5	U
14	Chloroform	67-66-3	µg/L	5	<5	U
15	Chloromethane	74-87-3	µg/L	5	<5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	<5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	<5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	<5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	<5	U
20	Dibromomethane	74-95-3	µg/L	5	<5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	<5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	<5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	<5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	<5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	<5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	<5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	<5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	<5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	<5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	<5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	<5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	<5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	<5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	<5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	<5	U
36	Ethylbenzene	100-41-4	µg/L	5	<5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	<5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	<5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	91
2	Dibromofluoromethane	1868-53-7	86-117	87
3	1,2-Dichloroethane-d4	17060-07-0	80-119	85
4	Toluene-d8	2037-26-5	88-109	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	103
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	102
3	Fluorobenzene	462-06-6	50-200	119
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-7	Received Date:	04/08/98
Sample ID:	ES-11S	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/13/98	Anal. Date:	04/13/98
Batch No:	98G1861	Prep. No:	-	Anal. Time:	06:31
Data File Name:	2332-07	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	<5	U
2	Bromobenzene	108-86-1	µg/L	5	<5	U
3	Bromochloromethane	74-97-5	µg/L	5	<5	U
4	Bromodichloromethane	75-27-4	µg/L	5	<5	U
5	Bromoform	75-25-2	µg/L	5	<5	U
6	Bromomethane	74-83-9	µg/L	5	<5	U
7	n-Butylbenzene	104-51-8	µg/L	5	<5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	<5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	<5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	<5	U
11	Chlorobenzene	108-90-7	µg/L	5	<5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	<5	U
13	Chloroethane	75-00-3	µg/L	5	<5	U
14	Chloroform	67-66-3	µg/L	5	<5	U
15	Chloromethane	74-87-3	µg/L	5	<5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	<5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	<5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	<5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	<5	U
20	Dibromomethane	74-95-3	µg/L	5	<5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	<5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	<5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	<5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	<5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	<5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	<5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	<5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	<5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	<5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	<5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	<5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	<5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	<5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	<5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	<5	U
36	Ethylbenzene	100-41-4	µg/L	5	<5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	<5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	<5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	91
2	Dibromofluoromethane	1868-53-7	86-117	89
3	1,2-Dichloroethane-d4	17060-07-0	80-119	90
4	Toluene-d8	2037-26-5	88-109	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	99
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	97
3	Fluorobenzene	462-06-6	50-200	112
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-8	Received Date:	04/08/98
Sample ID:	ES-12S	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/13/98	Anal. Date:	04/13/98
Batch No:	98G1861	Prep. No:	-	Anal. Time:	07:10
Data File Name:	2332-08	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	< 5	U
2	Bromobenzene	108-86-1	µg/L	5	< 5	U
3	Bromochloromethane	74-97-5	µg/L	5	< 5	U
4	Bromodichloromethane	75-27-4	µg/L	5	< 5	U
5	Bromoform	75-25-2	µg/L	5	< 5	U
6	Bromomethane	74-83-9	µg/L	5	< 5	U
7	n-Butylbenzene	104-51-8	µg/L	5	< 5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	< 5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	< 5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	< 5	U
11	Chlorobenzene	108-90-7	µg/L	5	< 5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	< 5	U
13	Chloroethane	75-00-3	µg/L	5	< 5	U
14	Chloroform	67-66-3	µg/L	5	< 5	U
15	Chloromethane	74-87-3	µg/L	5	< 5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	< 5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	< 5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	< 5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	< 5	U
20	Dibromomethane	74-95-3	µg/L	5	< 5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	< 5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	< 5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	< 5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	< 5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	< 5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	< 5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	< 5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	< 5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	< 5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	< 5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	< 5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	< 5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	< 5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	< 5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	< 5	U
36	Ethylbenzene	100-41-4	µg/L	5	< 5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	< 5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	< 5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	< 5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	90
2	Dibromofluoromethane	1868-53-7	86-117	90
3	1,2-Dichloroethane-d4	17060-07-0	80-119	90
4	Toluene-d8	2037-26-5	88-109	104
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	79
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	80
3	Fluorobenzene	462-06-6	50-200	88
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-9	Received Date:	04/08/98
Sample ID:	ES-13D	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/13/98	Anal. Date:	04/13/98
Batch No:	98G1861	Prep. No:	-	Anal. Time:	07:48
Data File Name:	2332-09	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	<5	U
2	Bromobenzene	108-86-1	µg/L	5	<5	U
3	Bromochloromethane	74-97-5	µg/L	5	<5	U
4	Bromodichloromethane	75-27-4	µg/L	5	<5	U
5	Bromoform	75-25-2	µg/L	5	<5	U
6	Bromomethane	74-83-9	µg/L	5	<5	U
7	n-Butylbenzene	104-51-8	µg/L	5	<5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	<5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	<5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	<5	U
11	Chlorobenzene	108-90-7	µg/L	5	<5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	<5	U
13	Chloroethane	75-00-3	µg/L	5	<5	U
14	Chloroform	67-66-3	µg/L	5	<5	U
15	Chloromethane	74-87-3	µg/L	5	<5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	<5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	<5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	<5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	<5	U
20	Dibromomethane	74-95-3	µg/L	5	<5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	<5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	<5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	<5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	<5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	<5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	<5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	<5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	<5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	<5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	<5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	<5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	<5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	<5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	<5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	<5	U
36	Ethylbenzene	100-41-4	µg/L	5	<5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	<5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	<5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	90
2	Dibromofluoromethane	1868-53-7	86-117	88
3	1,2-Dichloroethane-d4	17060-07-0	80-119	86
4	Toluene-d8	2037-26-5	88-109	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	103
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	103
3	Fluorobenzene	462-06-6	50-200	119
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-10	Received Date:	04/08/98
Sample ID:	ES-13S	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/13/98	Anal. Date:	04/13/98
Batch No:	98G1861	Prep. No:	–	Anal. Time:	08:27
Data File Name:	2332-10	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	< 5	U
2	Bromobenzene	108-86-1	µg/L	5	< 5	U
3	Bromochloromethane	74-97-5	µg/L	5	< 5	U
4	Bromodichloromethane	75-27-4	µg/L	5	< 5	U
5	Bromoform	75-25-2	µg/L	5	< 5	U
6	Bromomethane	74-83-9	µg/L	5	< 5	U
7	n-Butylbenzene	104-51-8	µg/L	5	< 5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	< 5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	< 5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	< 5	U
11	Chlorobenzene	108-90-7	µg/L	5	< 5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	< 5	U
13	Chloroethane	75-00-3	µg/L	5	< 5	U
14	Chloroform	67-66-3	µg/L	5	< 5	U
15	Chloromethane	74-87-3	µg/L	5	< 5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	< 5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	< 5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	< 5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	< 5	U
20	Dibromomethane	74-95-3	µg/L	5	< 5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	< 5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	< 5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	< 5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	< 5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	< 5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	< 5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	< 5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	< 5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	< 5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	< 5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	< 5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	< 5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	< 5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	< 5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	< 5	U
36	Ethylbenzene	100-41-4	µg/L	5	< 5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	< 5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	< 5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	< 5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	96
2	Dibromofluoromethane	1868-53-7	86-117	93
3	1,2-Dichloroethane-d4	17060-07-0	80-119	89
4	Toluene-d8	2037-26-5	88-109	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	104
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	102
3	Fluorobenzene	462-06-6	50-200	120
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/08/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-11	Received Date:	04/08/98
Sample ID:	ES-14D	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/13/98	Anal. Date:	04/13/98
Batch No:	98G1861	Prep. No:	–	Anal. Time:	09:59
Data File Name:	2332-11	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	< 5	U
2	Bromobenzene	108-86-1	µg/L	5	< 5	U
3	Bromochloromethane	74-97-5	µg/L	5	< 5	U
4	Bromodichloromethane	75-27-4	µg/L	5	< 5	U
5	Bromoform	75-25-2	µg/L	5	< 5	U
6	Bromomethane	74-83-9	µg/L	5	< 5	U
7	n-Butylbenzene	104-51-8	µg/L	5	< 5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	< 5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	< 5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	< 5	U
11	Chlorobenzene	108-90-7	µg/L	5	< 5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	< 5	U
13	Chloroethane	75-00-3	µg/L	5	< 5	U
14	Chloroform	67-66-3	µg/L	5	< 5	U
15	Chloromethane	74-87-3	µg/L	5	< 5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	< 5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	< 5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	< 5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	< 5	U
20	Dibromomethane	74-95-3	µg/L	5	< 5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	< 5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	< 5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	< 5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	< 5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	< 5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	< 5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	< 5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	< 5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	< 5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	< 5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	< 5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	< 5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	< 5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	< 5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	< 5	U
36	Ethylbenzene	100-41-4	µg/L	5	< 5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	< 5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	< 5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	< 5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	95
2	Dibromofluoromethane	1868-53-7	86-117	91
3	1,2-Dichloroethane-d4	17060-07-0	80-119	89
4	Toluene-d8	2037-26-5	88-109	105
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	99
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	97
3	Fluorobenzene	462-06-6	50-200	114
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/08/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-12	Received Date:	04/08/98
Sample ID:	ES-14S	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/13/98	Anal. Date:	04/13/98
Batch No:	98G1861	Prep. No:	–	Anal. Time:	10:37
Data File Name:	2332-12	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	<5	U
2	Bromobenzene	108-86-1	µg/L	5	<5	U
3	Bromochloromethane	74-97-5	µg/L	5	<5	U
4	Bromodichloromethane	75-27-4	µg/L	5	<5	U
5	Bromoform	75-25-2	µg/L	5	<5	U
6	Bromomethane	74-83-9	µg/L	5	<5	U
7	n-Butylbenzene	104-51-8	µg/L	5	<5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	<5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	<5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	<5	U
11	Chlorobenzene	108-90-7	µg/L	5	<5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	<5	U
13	Chloroethane	75-00-3	µg/L	5	<5	U
14	Chloroform	67-66-3	µg/L	5	<5	U
15	Chloromethane	74-87-3	µg/L	5	<5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	<5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	<5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	<5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	<5	U
20	Dibromomethane	74-95-3	µg/L	5	<5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	<5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	<5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	<5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	<5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	<5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	<5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	<5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	<5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	<5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	<5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	<5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	<5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	<5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	<5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	<5	U
36	Ethylbenzene	100-41-4	µg/L	5	<5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	<5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	<5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	94
2	Dibromofluoromethane	1868-53-7	86-117	92
3	1,2-Dichloroethane-d4	17060-07-0	80-119	88
4	Toluene-d8	2037-26-5	88-109	105
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	105
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	101
3	Fluorobenzene	462-06-6	50-200	120
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-13	Received Date:	04/08/98
Sample ID:	**TRIP BLANK**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	04/13/98	Anal. Date:	04/13/98
Batch No:	98G1861	Prep. No:	–	Anal. Time:	11:15
Data File Name:	2332-13	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	< 5	U
2	Bromobenzene	108-86-1	µg/L	5	< 5	U
3	Bromochloromethane	74-97-5	µg/L	5	< 5	U
4	Bromodichloromethane	75-27-4	µg/L	5	< 5	U
5	Bromoform	75-25-2	µg/L	5	< 5	U
6	Bromomethane	74-83-9	µg/L	5	< 5	U
7	n-Butylbenzene	104-51-8	µg/L	5	< 5	U
8	sec-Butylbenzene	135-98-8	µg/L	5	< 5	U
9	tert-Butylbenzene	98-06-6	µg/L	5	< 5	U
10	Carbon tetrachloride	56-23-5	µg/L	5	< 5	U
11	Chlorobenzene	108-90-7	µg/L	5	< 5	U
12	Chlorodibromomethane	124-48-1	µg/L	5	< 5	U
13	Chloroethane	75-00-3	µg/L	5	< 5	U
14	Chloroform	67-66-3	µg/L	5	< 5	U
15	Chloromethane	74-87-3	µg/L	5	< 5	U
16	2-Chlorotoluene	95-49-8	µg/L	5	< 5	U
17	4-Chlorotoluene	106-43-4	µg/L	5	< 5	U
18	1,2-Dibromo-3-chloropropane (DB	96-12-8	µg/L	5	< 5	U
19	1,2-Dibromoethane (EDB)	106-93-4	µg/L	5	< 5	U
20	Dibromomethane	74-95-3	µg/L	5	< 5	U
21	1,2-Dichlorobenzene	95-50-1	µg/L	5	< 5	U
22	1,3-Dichlorobenzene	541-73-1	µg/L	5	< 5	U
23	1,4-Dichlorobenzene	106-46-7	µg/L	5	< 5	U
24	Dichlorodifluoromethane	75-71-8	µg/L	5	< 5	U
25	1,1-Dichloroethane	75-34-3	µg/L	5	< 5	U
26	1,2-Dichloroethane	107-06-2	µg/L	5	< 5	U
27	1,1-Dichloroethene	75-35-4	µg/L	5	< 5	U
28	cis-1,2-Dichloroethene	156-59-2	µg/L	5	< 5	U
29	trans-1,2-Dichloroethene	156-60-5	µg/L	5	< 5	U
30	1,2-Dichloropropane	78-87-5	µg/L	5	< 5	U
31	1,3-Dichloropropane	142-28-9	µg/L	5	< 5	U
32	2,2-Dichloropropane	594-20-7	µg/L	5	< 5	U
33	1,1-Dichloropropene	563-58-6	µg/L	5	< 5	U
34	cis-1,3-Dichloropropene	10061-01-5	µg/L	5	< 5	U
35	trans-1,3-Dichloropropene	10061-02-6	µg/L	5	< 5	U
36	Ethylbenzene	100-41-4	µg/L	5	< 5	U
37	Hexachlorobutadiene	87-68-3	µg/L	5	< 5	U
38	Isopropylbenzene (Cumene)	98-82-8	µg/L	5	< 5	U
39	p-Isopropyltoluene	99-87-6	µg/L	5	< 5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	Methylene chloride	75-09-2	µg/L	5	<5	U
41	Naphthalene	91-20-3	µg/L	5	<5	U
42	n-Propylbenzene	103-65-1	µg/L	5	<5	U
43	Styrene	100-42-5	µg/L	5	<5	U
44	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	5	<5	U
45	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	<5	U
46	Tetrachloroethene	127-18-4	µg/L	5	<5	U
47	Toluene	108-88-3	µg/L	5	<5	U
48	1,2,3-Trichlorobenzene	87-61-6	µg/L	5	<5	U
49	1,2,4-Trichlorobenzene	120-82-1	µg/L	5	<5	U
50	1,1,1-Trichloroethane	71-55-6	µg/L	5	<5	U
51	1,1,2-Trichloroethane	79-00-5	µg/L	5	<5	U
52	Trichloroethene	79-01-6	µg/L	5	<5	U
53	Trichlorofluoromethane	75-69-4	µg/L	5	<5	U
54	1,2,3-Trichloropropane	96-18-4	µg/L	5	<5	U
55	1,2,4-Trimethylbenzene	95-63-6	µg/L	5	<5	U
56	1,3,5-Trimethylbenzene	108-67-8	µg/L	5	<5	U
57	Vinyl chloride	75-01-4	µg/L	5	<5	U
58	o-Xylene	95-47-6	µg/L	5	<5	U
59	m/p-Xylene	108-38-3	µg/L	5	<5	U
60	Xylenes (total)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	86-114	97
2	Dibromofluoromethane	1868-53-7	86-117	94
3	1,2-Dichloroethane-d4	17060-07-0	80-119	88
4	Toluene-d8	2037-26-5	88-109	106
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	105
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	103
3	Fluorobenzene	462-06-6	50-200	121
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8260

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98G1861		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	S3 % #	S4 % #	TOT OUT
1	98G1861-MB-01	98G1861-MB-01	99	88	80	103	0
2	98G1861-LCS-01	98G1861-LCS-01	112	108	106	109	0
3	98G1861-LSD-01	98G1861-LSD-01	91	94	89	95	0
4	DMW-5	98-2332-1	101	99	99	108	0
5	ES-6D	98-2332-2	98	96	98	107	0
6	ES-7D	98-2332-3	99	97	97	108	0
7	ES-7S	98-2332-4	96	92	94	108	0
8	Field Blank	98-2332-5	94	93	91	107	0
9	Field Blank-MS	98-2332-5MS	97	108	107	107	0
10	Field Blank-MSD	98-2332-5MSD	93	103	101	105	0
11	98G1861-MB-02	98G1861-MB-02	90	89	85	102	0
12	ES-11D	98-2332-6	91	87	85	102	0
13	ES-11S	98-2332-7	91	89	90	101	0
14	ES-12S	98-2332-8	90	90	90	104	0
15	ES-13D	98-2332-9	90	88	86	100	0
16	ES-13S	98-2332-10	96	93	89	109	0
17	ES-14D	98-2332-11	95	91	89	105	0
18	ES-14S	98-2332-12	94	92	88	105	0
19	TRIP BLANK	98-2332-13	97	94	88	106	0
20							
21							
22							
23							
24							
25							

	QC Control Limit
S1 = 4-Bromo-fluorobenzene (BFB)	86-114
S2 = Dibromofluoromethane	86-117
S3 = 1,2-Dichloroethane-d4	80-119
S4 = Toluene-d8	88-109

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits D - Surrogate diluted out I - Matrix Interference

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Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8260

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98G1861		
LCS Filename:	G1861L01	Date Analyzed:	041298	Time Analyzed:	17:05
LCSD Filename:	G1861J01	Date Analyzed:	041298	Time Analyzed:	17:44

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
Benzene	µg/L	50	0	57.0	114	81-116
Chlorobenzene	µg/L	50	0	57.5	115	79-118
1,1-Dichloroethane	µg/L	50	0	57.7	115	73-126
Toluene	µg/L	50	0	59.3	119	79-119
Trichloroethene	µg/L	50	0	54.8	110	78-118
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
Benzene	µg/L	50	48.8	98	15	24	81-116
Chlorobenzene	µg/L	50	47.8	96	18	26	79-118
1,1-Dichloroethane	µg/L	50	48.8	98	16	34	73-126
Toluene	µg/L	50	48.9	98	19	27	79-119
Trichloroethene	µg/L	50	47.5	95	15	26	78-118
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 8260

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98G1861		
MS Filename:	G1861M01	Date Analyzed:	041398	Time Analyzed:	00:11
MSD Filename:	G1861N01	Date Analyzed:	041398	Time Analyzed:	00:49
MS Sample No:	**Field Blank**	Sample Lab ID:	98-2332-5		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
Benzene	µg/L	50	0	52.3	105	68-127
Chlorobenzene	µg/L	50	0	49.8	100	68-127
1,1-Dichloroethane	µg/L	50	0	53.7	107	63-137
Toluene	µg/L	50	0	52.4	105	66-127
Trichloroethene	µg/L	50	0	49.9	100	71-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
Benzene	µg/L	50	50.6	101	4	29	68-127
Chlorobenzene	µg/L	50	48.3	97	3	30	68-127
1,1-Dichloroethane	µg/L	50	51.1	102	5	37	63-137
Toluene	µg/L	50	50.8	102	3	30	66-127
Trichloroethene	µg/L	50	49.3	99	1	44	71-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Method Blank Summary for Method 8260

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Analysis Date:	04/12/98
		Sample Matrix:	Water	Analysis Time:	16:27
Sample ID:	**98G1861-MB-01**	Batch No:	98G1861	Instrument ID:	GC/MS: C
Lab Sample ID:	98G1861-MB-01	Data File Name:	G1861K01	GC Column:	DB-5.624
		Heated Purge: (Y/N)	N	Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	98G1861-LCS-01	98G1861-LCS-01	Lab Control Spike	G1861L01	04/12/98	17:05
2	98G1861-LSD-01	98G1861-LSD-01	Lab Control Spike Duplicate	G1861J01	04/12/98	17:44
3	DMW-5	98-2332-1	Field Sample	2332-01	04/12/98	21:00
4	ES-6D	98-2332-2	Field Sample	2332-02	04/12/98	21:38
5	ES-7D	98-2332-3	Field Sample	2332-03	04/12/98	22:16
6	ES-7S	98-2332-4	Field Sample	2332-04	04/12/98	22:54
7	Field Blank	98-2332-5	Field Sample	2332-05	04/12/98	23:33
8	Field Blank-MS	98-2332-5MS	Matrix Spike	G1861M01	04/13/98	00:11
9	Field Blank-MSD	98-2332-5MSD	Matrix Spike Duplicate	G1861N01	04/13/98	00:49
10						
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Applied P & Ch Laboratory

Method Blank Summary for Method 8260

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Analysis Date:	04/13/98
		Sample Matrix:	Water	Analysis Time:	05:15
Sample ID:	98G1861-MB-02	Batch No:	98G1861	Instrument ID:	GC/MS: C
Lab Sample ID:	98G1861-MB-02	Data File Name:	G1861K02	GC Column:	DB-5.624
		Heated Purge: (Y/N)	N	Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	ES-11D	98-2332-6	Field Sample	2332-06	04/13/98	05:54
2	ES-11S	98-2332-7	Field Sample	2332-07	04/13/98	06:31
3	ES-12S	98-2332-8	Field Sample	2332-08	04/13/98	07:10
4	ES-13D	98-2332-9	Field Sample	2332-09	04/13/98	07:48
5	ES-13S	98-2332-10	Field Sample	2332-10	04/13/98	08:27
6	ES-14D	98-2332-11	Field Sample	2332-11	04/13/98	09:59
7	ES-14S	98-2332-12	Field Sample	2332-12	04/13/98	10:37
8	TRIP BLANK	98-2332-13	Field Sample	2332-13	04/13/98	11:15
9						
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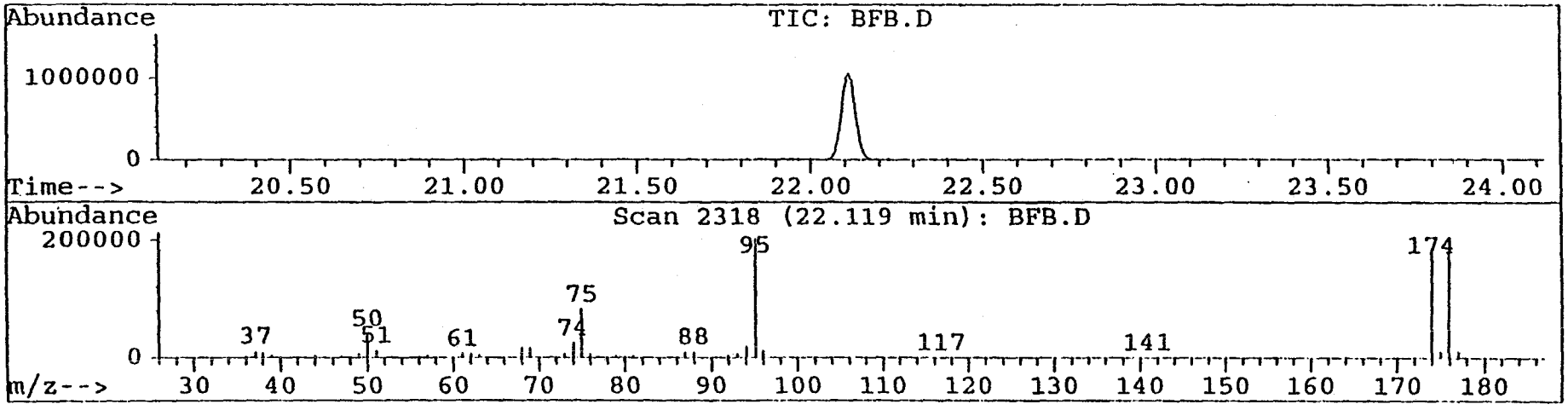
25						

Data File : C:\HPCHEM\1\DATA\98G1762\BFB.D
Acq On : 4 Apr 98 2:25 pm
Sample : BFB 25
Misc :

Vial: 4
Operator: MINA
Inst : GCMS-C
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260



Peak Apex is scan: 2318

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	40872	PASS
75	95	30	60	40.6	82664	PASS
95	95	100	100	100.0	203456	PASS
96	95	5	9	6.3	12772	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	88.5	180032	PASS
175	174	5	9	6.6	11953	PASS
176	174	95	101	98.4	177152	PASS
177	176	5	9	6.7	11920	PASS

354B

BFB.D 826WC019.M Mon Apr 06 14:07:07 1998

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : APPLIED P & CH LAB Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 98-2332

Lab File ID: BFB.D BFB Injection Date: 4/4/98

Instrument ID: GCMS-C BFB Injection Time: 1425

GC Column: DB-5.624 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.1
75	30.0 - 60.0% of mass 95	40.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	88.5
175	5.0 - 9.0% of mass 174	5.9 (6.6)1
176	95.0 - 101.0% of mass 174	87.1 (98.4)1
177	5.0 - 9.0% of mass 176	5.9 (6.7)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
02	VSTD002	019-002	019-002.D	4/4/98	1503
03	VSTD010	019-010	019-010.D	4/4/98	1541
04	VSTD050	019-050	019-050.D	4/4/98	1618
05	VSTD080	019-080	019-080.D	4/4/98	1656
06	VSTD100	019-100	019-100.D	4/4/98	1734
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Response Factor Report GCMS-C

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Mon Apr 06 14:01:22 1998
Response via : Initial Calibration

Calibration Files
2 =19-002.D 10 =19-010.D 80 =19-080.D
100 =19-100.D 50 =19-050.D 20 =19-020.D

			Compound	2	10	80	100	50	20	Avg	%RSD
1)	I	1	Fluorobenzene	----------ISTD----------							
2)		3	di-Cl-di-F-metha		0.317	0.288	0.325	0.322	0.272	0.305	7.76
3)	p	4	Chloromethane		0.345	0.282	0.325	0.308	0.293	0.310	8.02
4)	C	5	vinyl chloride		0.332	0.248	0.274	0.282	0.268	0.281	11.11
5)		6	bromomethane		0.192	0.198	0.232	0.203	0.172	0.199	10.92
6)		7	chloroethane	0.365	0.259	0.133	0.200	0.221	0.172	0.236	36.33
7)		8	tri-Cl-F-methane	0.459	0.481	0.386	0.444	0.431	0.386	0.431	8.96
8)		91	Acetonitrile 10	0.059	0.056	0.053	0.061	0.059	0.054	0.057	5.05
9)		9	acrolein 10	0.045	0.061	0.062	0.070	0.068	0.058	0.061	14.57
10)		11	acetone 10	0.027	0.027	0.025	0.029	0.028	0.026	0.027	4.77
11)		12	ethyl ether 5	0.251	0.272	0.248	0.273	0.279	0.260	0.264	4.92
12)	M,	C13	11-dichloroethen	0.293	0.482	0.434	0.493	0.485	0.427	0.436	17.32
13)		14	Iodomethane	0.371	0.514	0.428	0.426	0.534	0.481	0.459	13.43
14)		15	F-113	0.093	0.215	0.203	0.232	0.226	0.190	0.193	26.53
15)		16	acrylonitrile 10	0.133	0.140	0.135	0.154	0.149	0.134	0.141	6.32
16)		17	carbon disulfide	0.770	1.175	1.048	1.189	1.168	1.029	1.063	14.95
17)		18	methylene chlori	0.317	0.363	0.344	0.382	0.383	0.350	0.357	7.10
18)		19	t-12-di-Cl-ethen	0.244	0.343	0.304	0.344	0.342	0.303	0.314	12.45
19)		20	t-Bu-Me-ether 2	0.770	0.817	0.767	0.853	0.867	0.805	0.813	5.10
20)	p	21	11-dichloroethan	0.489	0.634	0.581	0.651	0.649	0.583	0.598	10.31
21)		22	c-12-di-Cl-ethen	0.312	0.388	0.352	0.395	0.396	0.363	0.368	8.86
22)		23	22-Dichloropropa	0.329	0.484	0.408	0.454	0.470	0.417	0.427	13.24
23)		24	Br-Cl-methane	0.155	0.177	0.165	0.180	0.186	0.172	0.172	6.47
24)	C	25	chloroform	0.517	0.624	0.566	0.626	0.632	0.578	0.591	7.67
25)		26	tetrahydrofuran	0.017	0.024	0.025	0.026	0.027	0.025	0.024	14.63
26)	S	27	Di-Br-F-Me (surr	0.380	0.409	0.381	0.427	0.423	0.382	0.400	5.43

3548

(#) = Out of Range

Response Factor Report GCMS-C

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Mon Apr 06 14:01:22 1998
Response via : Initial Calibration

Calibration Files
2 =19-002.D 10 =19-010.D 80 =19-080.D
100 =19-100.D 50 =19-050.D 20 =19-020.D

		Compound	2	10	80	100	50	20	Avg	%RSD
27)	S	29 1,2-Di-Cl-Et-d4	0.463	0.382	0.349	0.383	0.389	0.367	0.389	10.09
28)		30 12-dichloroethan	0.118	0.144	0.135	0.149	0.153	0.140	0.140	8.93
29)		32 vinyl acetate 5	0.967	0.997	0.923	1.006	1.032	0.954	0.980	4.03
30)		33 2-butanone, MEK	0.024	0.031	0.031	0.035	0.034	0.030	0.031	12.40
31)		34 111-trichloroeth	0.300	0.481	0.445	0.503	0.498	0.433	0.443	17.04
32)		35 11-Di-Cl-propene	0.274	0.462	0.422	0.473	0.466	0.409	0.418	17.88
33)	M	36 benzene	1.094	1.357	1.184	1.318	1.332	1.220	1.251	8.18
34)		37 CCl4	0.209	0.373	0.355	0.404	0.393	0.334	0.345	20.63
35)		38 thiophene	0.702	0.790	0.739	0.817	0.833	0.758	0.773	6.41
36)	C	39 12-di-Cl-propane	0.379	0.404	0.387	0.433	0.433	0.390	0.404	5.76
37)	M	40 trichloroethene	0.253	0.363	0.334	0.384	0.373	0.324	0.338	14.10
38)		41 dibromomethane	0.222	0.258	0.230	0.247	0.264	0.244	0.244	6.53
39)		42 Br-di-Cl-methane	0.436	0.506	0.475	0.528	0.534	0.483	0.494	7.41
40)		43 Me-methacrylate	0.190	0.229	0.236	0.266	0.259	0.229	0.235	11.57
41)		44 2-ClEt-Vi-ether	0.252	0.249	0.226	0.244	0.256	0.244	0.245	4.35
42)		45 c-13-di-Cl-prope	0.587	0.625	0.585	0.646	0.660	0.591	0.616	5.29
43)		46 t-1,3-dichloropr	0.510	0.544	0.524	0.574	0.582	0.520	0.542	5.51
44)	I	47 Chlorobezene-d5	----------	----------	----------	ISTD	----------	----------	----------	
45)		48 112-tri-Cl-Et	0.317	0.337	0.313	0.351	0.359	0.325	0.334	5.51
46)		49 13-di-Cl-propane	0.578	0.579	0.521	0.574	0.607	0.559	0.570	5.01
47)		50 Et methacrylate	0.192	0.221	0.223	0.252	0.251	0.221	0.227	9.91
48)		51 di-Br-Cl-methane	0.373	0.389	0.374	0.419	0.427	0.376	0.393	6.15
49)	P	52 bromoform	0.242	0.267	0.273	0.303	0.305	0.264	0.276	8.87
50)		53 1,4-dichlorobuta	0.738	0.751	0.667	0.738	0.764	0.706	0.727	4.84
51)		54 MIBK	0.433	0.396	0.390	0.433	0.436	0.391	0.413	5.50
52)	s	55 toluene-d8	1.141	1.258	1.085	1.215	1.248	1.141	1.181	5.87

(#) = Out of Range

Response Factor Report GCMS-C

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Mon Apr 06 14:01:22 1998
Response via : Initial Calibration

Calibration Files
2 =19-002.D 10 =19-010.D 80 =19-080.D
100 =19-100.D 50 =19-050.D 20 =19-020.D

			Compound	2	10	80	100	50	20	Avg	%RSD
53)	M,C	56	toluene	1.192	1.461	1.255	1.408	1.442	1.319	1.346	8.06
54)		57	2-hexanone 5	0.286	0.293	0.273	0.305	0.312	0.284	0.292	4.97
55)		58	12-dibromoethane	0.367	0.371	0.351	0.395	0.406	0.367	0.376	5.44
56)		59	tetra-Cl-ethene	0.246	0.373	0.332	0.381	0.380	0.332	0.341	15.17
57)	M,P	60	chlorobenzene	0.994	1.096	0.971	1.085	1.110	1.023	1.046	5.57
58)		61	1112-tetra-Cl-Et	0.310	0.342	0.318	0.352	0.363	0.324	0.335	6.24
59)	I	62	1,4-Dichlorobenzen	----------	----------	----------	ISTD	----------	----------	----------	
60)		63	1-chlorohexane	0.306	0.415	0.370	0.411	0.420	0.378	0.383	11.21
61)	C	64	Et-Bz 91 106	3.240	3.818	3.172	3.552	3.755	3.455	3.499	7.51
62)		65	m/p-Xylenes 91 1	2.478	2.849	2.324	2.574	2.763	2.572	2.593	7.32
63)		66	styrene 104 7	2.366	2.547	2.192	2.415	2.576	2.382	2.413	5.75
64)		67	o-xylene 91 106	2.726	3.050	2.511	2.803	2.990	2.780	2.810	6.89
65)	p	68	1122-Tetra-Cl-Et	1.037	1.025	0.934	1.019	1.098	0.991	1.017	5.31
66)		69	123-tri-Cl-Pr	0.231	0.259	0.231	0.260	0.272	0.251	0.251	6.68
67)	S	70	4-Br-1-F-Bz (S3)	1.102	0.957	0.813	0.903	0.965	0.887	0.938	10.40
68)		71	isopropylbenzene	3.028	3.776	3.221	3.592	3.771	3.433	3.470	8.72
69)		72	bromobenzene	0.929	0.960	0.820	0.901	0.971	0.910	0.915	5.89
70)		92	t-1,4-dichloro-2	0.132	0.188	0.185	0.205	0.216	0.185	0.185	15.49
71)		73	n-propylbenzene	0.784	0.965	0.831	0.917	0.970	0.888	0.893	8.31
72)		74	4-Cl-Toluene 126	0.791	0.886	0.751	0.831	0.883	0.804	0.824	6.47
73)		75	2-Cl-Toluene 12	0.841	0.889	0.749	0.831	0.895	0.805	0.835	6.52
74)		76	135-tri-Me-Benze	2.555	3.033	2.542	2.823	3.006	2.831	2.798	7.57
75)		77	4-iso-Pr-toluene	2.752	3.287	2.620	2.904	3.116	2.981	2.943	8.21
76)		78	124-tri-Me-Benze	2.811	3.142	2.591	2.873	3.090	2.899	2.901	6.88
77)		79	tert-butylbenzen	2.132	2.594	2.179	2.404	2.567	2.353	2.372	8.08
78)		80	13-DCB	1.703	1.759	1.428	1.563	1.711	1.628	1.632	7.45

355C

(#) = Out of Range

Response Factor Report GCMS-C

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Mon Apr 06 14:01:22 1998
Response via : Initial Calibration

Calibration Files
2 =19-002.D 10 =19-010.D 80 =19-080.D
100 =19-100.D 50 =19-050.D 20 =19-020.D

	Compound	2	10	80	100	50	20	Avg	%RSD
79)	81 sec-butylbenzene	3.443	4.318	3.588	3.995	4.212	3.928	3.914	8.75
80)	82 14-DCB	1.789	1.771	1.466	1.620	1.753	1.634	1.672	7.39
81)	83 Cl-benzyl	0.376	0.402	0.360	0.397	0.420	0.386	0.390	5.35
82)	84 12-DCB 146 148	1.698	1.726	1.424	1.568	1.676	1.594	1.614	6.89
83)	85 n-butylbenzene	0.657	0.828	0.700	0.769	0.814	0.768	0.756	8.76
84)	86 12-diBr-2-Cl-Pra	0.156	0.193	0.185	0.212	0.209	0.188	0.191	10.69
85)	87 124-tri-Cl-Bz	1.262	1.352	1.194	1.346	1.396	1.286	1.306	5.59
86)	88 naphthalene	2.556	2.628	2.523	2.818	2.863	2.655	2.674	5.17
87)	89 hx-Cl-butadiene	0.480	0.593	0.524	0.582	0.592	0.558	0.555	8.14
88)	90 123-Tri-Cl-Bz	1.157	1.172	1.064	1.189	1.226	1.127	1.156	4.82

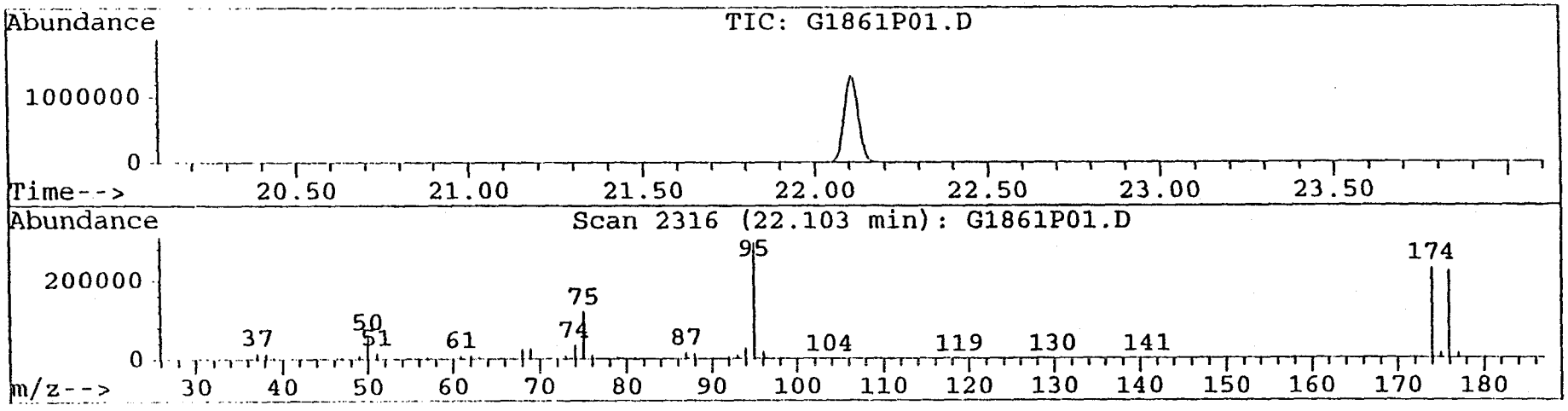
355

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\98G1861\G1861P01.D
Acq On : 12 Apr 98 2:32 pm
Sample : ##98g1861,w 17
Misc :

Vial: 4
Operator: Eddie
Inst : GCMS-C
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260



Peak Apex is scan: 2316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	57592	PASS
75	95	30	60	40.6	121536	PASS
95	95	100	100	100.0	299712	PASS
96	95	5	9	6.9	20536	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	77.3	231680	PASS
175	174	5	9	7.1	16361	PASS
176	174	95	101	96.8	224256	PASS
177	176	5	9	6.4	14456	PASS

G1861P01.D 826WC019.M Sun Apr 12 15:52:23 1998

Applied P & Ch Laboratory

Volatile Organic Instrument Performance Check for Method 8260

Bromofluorobenzene (BFB), Part II

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	BFB Inj. Date:	04/12/98	Batch No:	98G1861
		BFB Inj. Time:	14:32	Sequence No:	98G1861
Project No:	98HW001	Instrument ID:	C	GC Column:	DB-5.624
Data File Name:	G1861P01	Heated Purge: (Y/N)	N	Column ID:	0.32 mm

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

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	98G1861-CCV-01	98G1861-CCV-01	G1861Q01	04/12/98	15:10
2	98G1861-MB-01	98G1861-MB-01	G1861K01	04/12/98	16:27
3	98G1861-LCS-01	98G1861-LCS-01	G1861L01	04/12/98	17:05
4	98G1861-LSD-01	98G1861-LSD-01	G1861J01	04/12/98	17:44
5	DMW-5	98-2332-1	2332-01	04/12/98	21:00
6	ES-6D	98-2332-2	2332-02	04/12/98	21:38
7	ES-7D	98-2332-3	2332-03	04/12/98	22:16
8	ES-7S	98-2332-4	2332-04	04/12/98	22:54
9	Field Blank	98-2332-5	2332-05	04/12/98	23:33
10	Field Blank-MS	98-2332-5MS	G1861M01	04/13/98	00:11
11	Field Blank-MSD	98-2332-5MSD	G1861N01	04/13/98	00:49
12					
13					
14					
15					
16					
17					
18					
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23					
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25					

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\98G1861\G1861Q01.D Vial: 7
Acq On : 12 Apr 98 3:10 pm Operator: Eddie
Sample : f=1 18 Inst : GCMS-C
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Tue Apr 14 10:15:03 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound				AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1	Fluorobenzene			1.000	1.000	0.0	111	0.00
2		3	di-Cl-di-F-methane	85	8	0.305	0.209	31.3#	72	0.00
3	p	4	Chloromethane	50	5	0.310	0.282	9.2	102	0.00
4	C	5	vinyl chloride	62	6	0.281	0.227	19.0	89	0.00
5		6	bromomethane 94	96		0.199	0.179	10.1	98	0.00
6		7	chloroethane	64	6	0.236	0.113	52.2#	63	0.00
7		8	tri-Cl-F-methane	101	10	0.431	0.205	52.4#	53	0.00
8		91	Acetonitrile 10			0.057	0.064	-12.5	121	0.00
9		9	acrolein 10	56	5	0.061	0.050	17.8	82	0.00
10		11	acetone 10	58	4	0.027	0.036	-35.5#	144	0.00
11		12	ethyl ether 5	59	7	0.264	0.263	0.2	105	0.00
12	M, C	13	11-dichloroethene	61	9	0.436	0.443	-1.8	101	0.00
13		14	Iodomethane	142	12	0.459	0.399	13.0	83	0.00
14		15	F-113	151	10	0.193	0.171	11.7	84	0.00
15		16	acrylonitrile 10	53	5	0.141	0.159	-12.6	118	0.00
16		17	carbon disulfide	76	7	1.063	1.048	1.4	100	0.00
17		18	methylene chloride	49	8	0.357	0.371	-4.1	108	0.00
18		19	t-12-di-Cl-ethene	96	6	0.314	0.323	-3.0	105	0.00
19		20	t-Bu-Me-ether 2	73	5	0.813	0.813	0.0	104	0.00
20	p	21	11-dichloroethane	63	8	0.598	0.629	-5.2	108	0.00
21		22	c-12-di-Cl-ethene	96	6	0.368	0.372	-1.1	104	0.00
22		23	22-Dichloropropane	77	9	0.427	0.445	-4.3	105	0.00
23		24	Br-Cl-methane	128	13	0.172	0.169	1.9	101	0.00
24	C	25	chloroform	83	8	0.591	0.613	-3.7	108	0.00
25		26	tetrahydrofuran 5	42	7	0.024	0.029	-22.0#	122	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\98G1861\G1861Q01.D Vial: 7
Acq On : 12 Apr 98 3:10 pm Operator: Eddie
Sample : f=1 18 Inst : GCMS-C
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Tue Apr 14 10:15:03 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound			AvgRF	CCRF	%Dev	Area%	Dev(min)
26	S	27 Di-Br-F-Me (surr)			0.400	0.393	1.7	103	0.00
27	S	29 1,2-Di-Cl-Et-d4 (S1)	65		0.389	0.354	8.9	101	0.00
28		30 12-dichloroethane	64	6	0.140	0.140	0.3	101	0.00
29		32 vinyl acetate 5			0.980	1.014	-3.5	109	0.00
30		33 2-butanone, MEK 10			0.031	0.033	-8.3	109	0.00
31		34 111-trichloroethane			0.443	0.445	-0.5	99	0.00
32		35 11-Di-Cl-propene	75	11	0.418	0.428	-2.5	102	0.00
33	M	36 benzene	78	5	1.251	1.284	-2.7	107	0.00
34		37 CCl4	117	11	0.345	0.325	5.8	92	0.00
35		38 thiophene	84	5	0.773	0.776	-0.3	103	0.00
36	C	39 12-di-Cl-propane	63	7	0.404	0.418	-3.4	107	0.00
37	M	40 trichloroethene	130	13	0.338	0.343	-1.3	102	0.00
38		41 dibromomethane	174	17	0.244	0.242	0.7	102	0.00
39		42 Br-di-Cl-methane	83	8	0.494	0.504	-2.1	105	0.00
40		43 Me-methacrylate	69	10	0.235	0.252	-7.4	108	0.00
41		44 2-ClEt-Vi-ether 10	63	10	0.245	0.261	-6.7	113	0.00
42		45 c-13-di-Cl-propene	75	11	0.616	0.628	-2.0	106	0.00
43		46 t-1,3-dichloropropene			0.542	0.563	-3.9	108	0.00
44	I	47 Chlorobezene-d5			1.000	1.000	0.0	110	0.00
45		48 112-tri-Cl-Et	97	8	0.334	0.353	-5.6	108	0.00
46		49 13-di-Cl-propane	76	7	0.570	0.599	-5.1	109	0.00
47		50 Et methacrylate	69	9	0.227	0.246	-8.3	108	0.00
48		51 di-Br-Cl-methane	129	12	0.393	0.397	-1.1	103	0.00
49	P	52 bromoform			0.276	0.297	-7.8	107	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\98G1861\G1861Q01.D
Acq On : 12 Apr 98 3:10 pm
Sample : f=1 18
Misc :

Vial: 7
Operator: Eddie
Inst : GCMS-C
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Tue Apr 14 10:15:03 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound			AvgRF	CCRF	%Dev	Area%	Dev(min)
50		53 1,4-dichlorobutane-2			0.727	0.773	-6.3	112	0.00
51		54 MIBK			0.413	0.463	-12.1	117	0.00
52	s	55 toluene-d8			1.181	1.190	-0.7	105	0.00
53	M,C	56 toluene			1.346	1.393	-3.5	107	0.00
54		57 2-hexanone 5			0.292	0.341	-16.8	121	0.00
55		58 12-dibromoethane	107	10	0.376	0.393	-4.4	107	0.00
56		59 tetra-Cl-ethene	166	16	0.341	0.343	-0.7	100	0.00
57	M,P	60 chlorobenzene	112	7	1.046	1.042	0.5	104	0.00
58		61 1112-tetra-Cl-Et	131	13	0.335	0.343	-2.4	104	0.00
59	I	62 1,4-Dichlorobenzene-d4			1.000	1.000	0.0	123	0.00
60		63 1-chlorohexane	93	5	0.383	0.353	8.0	103	0.00
61	C	64 Et-Bz 91 106			3.499	3.320	5.1	109	0.00
62		65 m/p-Xylenes 91 106 [X2]			2.593	2.428	6.4	108	0.00
63		66 styrene 104 78			2.413	2.247	6.9	107	0.00
64		67 o-xylene 91 106			2.810	2.668	5.1	110	0.00
65	p	68 1122-Tetra-Cl-Et	83	8	1.017	1.024	-0.7	115	0.00
66		69 123-tri-Cl-Pr	110	9	0.251	0.243	3.1	110	0.00
67	S	70 4-Br-1-F-Bz (S3)	174	9	0.938	0.832	11.3	106	0.00
68		71 isopropylbenzene	105	12	3.470	3.258	6.1	106	0.00
69		72 bromobenzene	156	15	0.915	0.843	7.8	107	0.00
70		92 t-1,4-dichloro-2-butene			0.185	0.196	-5.8	112	0.00
71		73 n-propylbenzene	120	7	0.893	0.852	4.6	108	0.00
72		74 4-Cl-Toluene 126 128			0.824	0.774	6.1	108	0.00
73		75 2-Cl-Toluene 126 128			0.835	0.776	7.0	107	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\98G1861\G1861Q01.D Vial: 7
Acq On : 12 Apr 98 3:10 pm Operator: Eddie
Sample : f=1 18 Inst : GCMS-C
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Tue Apr 14 10:15:03 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound			AvgRF	CCRF	%Dev	Area%	Dev(min)
74	76	135-tri-Me-Benzene			2.798	2.613	6.6	107	0.00
75	77	4-iso-Pr-toluene	119	13	2.943	2.757	6.3	109	0.00
76	78	124-tri-Me-Benzene			2.901	2.709	6.6	108	0.00
77	79	tert-butylbenzene	119	9	2.372	2.208	6.9	106	0.00
78	80	13-DCB			1.632	1.546	5.3	111	0.00
79	81	sec-butylbenzene	105	13	3.914	3.692	5.7	108	0.00
80	82	14-DCB			1.672	1.562	6.6	110	0.00
81	83	Cl-benzyl	91	126	0.390	0.405	-3.8	119	0.00
82	84	12-DCB 146 148			1.614	1.532	5.1	112	0.00
83	85	n-butylbenzene	91	13	0.756	0.713	5.7	108	0.00
84	86	12-diBr-2-Cl-Pra	157	15	0.191	0.194	-1.7	114	0.00
85	87	124-tri-Cl-Bz	180	18	1.306	1.273	2.5	112	0.00
86	88	naphthalene	128	12	2.674	2.648	1.0	114	0.00
87	89	hx-Cl-butadiene	225	26	0.555	0.506	8.8	105	0.00
88	90	123-Tri-Cl-Bz	180	18	1.156	1.144	1.0	115	0.00

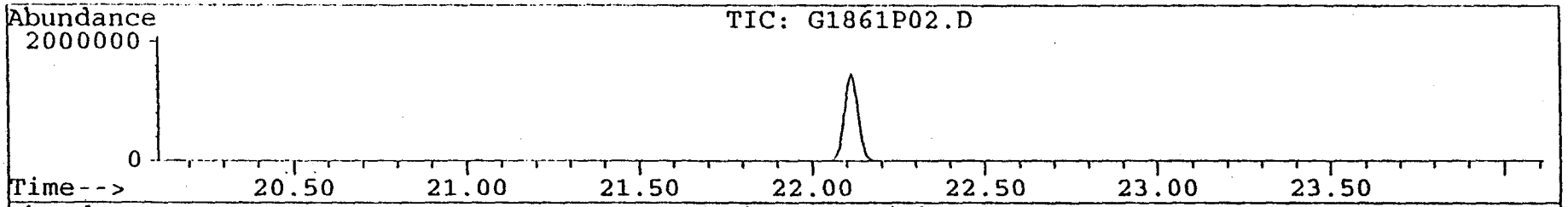
355

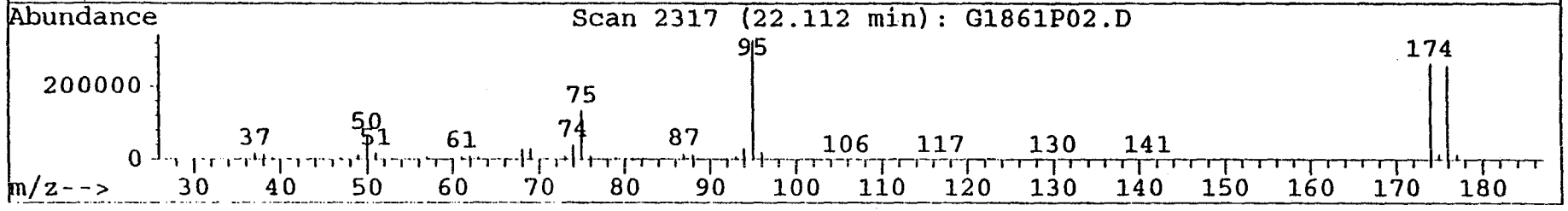
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\98G1861\G1861P02.D
Acq On : 13 Apr 98 3:21 am
Sample : f=1 17
Misc :

Vial: 4
Operator: Eddie
Inst : GCMS-C
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260





Peak Apex is scan: 2317

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	63176	PASS
75	95	30	60	40.8	134336	PASS
95	95	100	100	100.0	329536	PASS
96	95	5	9	6.8	22304	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	80.1	263872	PASS
175	174	5	9	7.4	19552	PASS
176	174	95	101	98.1	258944	PASS
177	176	5	9	6.4	16496	PASS

Applied P & Ch Laboratory

Volatile Organic Instrument Performance Check for Method 8260

Bromofluorobenzene (BFB), Part II

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	BFB Inj. Date:	04/13/98	Batch No:	98G1861
		BFB Inj. Time:	03:21	Sequence No:	98G1861
Project No:	98HW001	Instrument ID:	C	GC Column:	DB-5.624
Data File Name:	G1861P02	Heated Purge: (Y/N)	N	Column ID:	0.32 mm

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

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	98G1861-CCV-02	98G1861-CCV-02	G1861Q02	04/13/98	03:59
2	98G1861-MB-02	98G1861-MB-02	G1861K02	04/13/98	05:15
3	ES-11D	98-2332-6	2332-06	04/13/98	05:54
4	ES-11S	98-2332-7	2332-07	04/13/98	06:31
5	ES-12S	98-2332-8	2332-08	04/13/98	07:10
6	ES-13D	98-2332-9	2332-09	04/13/98	07:48
7	ES-13S	98-2332-10	2332-10	04/13/98	08:27
8	ES-14D	98-2332-11	2332-11	04/13/98	09:59
9	ES-14S	98-2332-12	2332-12	04/13/98	10:37
10	TRIP	BLANK	98-2332-13	2332-13	04/13/98
11:15 height1pt 11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\98G1861\G1861Q02.D Vial: 7
Acq On : 13 Apr 98 3:59 am Operator: Eddie
Sample : f=1 18 Inst : GCMS-C
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Tue Apr 14 10:15:03 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound				AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1	Fluorobenzene			1.000	1.000	0.0	114	0.02
2		3	di-Cl-di-F-methane	85	8	0.305	0.279	8.3	99	0.00
3	p	4	Chloromethane	50	5	0.310	0.329	-5.8	122	0.00
4	C	5	vinyl chloride	62	6	0.281	0.255	9.2	103	0.00
5		6	bromomethane 94	96		0.199	0.208	-4.3	117	0.00
6		7	chloroethane	64	6	0.236	0.121	48.8#	69	0.00
7		8	tri-Cl-F-methane	101	10	0.431	0.226	47.6#	60	0.00
8		91	Acetonitrile 10			0.057	0.073	-28.7#	143	0.00
9		9	acrolein 10	56	5	0.061	0.011	82.0#	18#	0.00
10		11	acetone 10	58	4	0.027	0.035	-30.1#	143	0.00
11		12	ethyl ether 5	59	7	0.264	0.303	-15.0	124	0.00
12	M, C	13	11-dichloroethene	61	9	0.436	0.477	-9.6	113	0.00
13		14	Iodomethane	142	12	0.459	0.524	-14.1	112	0.00
14		15	F-113	151	10	0.193	0.193	0.1	98	0.00
15		16	acrylonitrile 10	53	5	0.141	0.182	-29.1#	139	0.00
16		17	carbon disulfide	76	7	1.063	1.229	-15.6	121	0.00
17		18	methylene chloride	49	8	0.357	0.409	-14.7	122	0.00
18		19	t-12-di-Cl-ethene	96	6	0.314	0.341	-8.7	114	0.00
19		20	t-Bu-Me-ether 2	73	5	0.813	0.899	-10.5	119	0.00
20	p	21	11-dichloroethane	63	8	0.598	0.664	-11.1	117	0.00
21		22	c-12-di-Cl-ethene	96	6	0.368	0.395	-7.5	114	0.00
22		23	22-Dichloropropane	77	9	0.427	0.397	7.1	97	0.00
23		24	Br-Cl-methane	128	13	0.172	0.189	-9.7	117	0.00
24	C	25	chloroform	83	8	0.591	0.642	-8.7	116	0.00
25		26	tetrahydrofuran 5	42	7	0.024	0.033	-38.0#	142	0.00

(#) = Out of Range

3560

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\98G1861\G1861Q02.D Vial: 7
Acq On : 13 Apr 98 3:59 am Operator: Eddie
Sample : f=1 18 Inst : GCMS-C
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Tue Apr 14 10:15:03 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound			AvgRF	CCRF	%Dev	Area%	Dev(min)
26	S	27 Di-Br-F-Me (surr)			0.400	0.415	-3.7	112	0.00
27	S	29 1,2-Di-Cl-Et-d4 (S1)	65		0.389	0.377	3.0	111	0.00
28		30 12-dichloroethane	64	6	0.140	0.151	-7.7	113	0.00
29		32 vinyl acetate 5			0.980	1.114	-13.7	124	0.00
30		33 2-butanone, MEK 10			0.031	0.040	-29.4#	134	0.00
31		34 111-trichloroethane			0.443	0.448	-0.9	103	0.00
32		35 11-Di-Cl-propene	75	11	0.418	0.444	-6.3	109	0.00
33	M	36 benzene	78	5	1.251	1.376	-10.0	118	0.00
34		37 CCl4	117	11	0.345	0.327	5.1	95	0.00
35		38 thiophene	84	5	0.773	0.838	-8.3	115	0.00
36	C	39 12-di-Cl-propane	63	7	0.404	0.452	-11.6	119	0.00
37	M	40 trichloroethene	130	13	0.338	0.357	-5.4	109	0.00
38		41 dibromomethane	174	17	0.244	0.271	-11.1	118	0.00
39		42 Br-di-Cl-methane	83	8	0.494	0.535	-8.4	115	0.00
40		43 Me-methacrylate	69	10	0.235	0.287	-22.2#	127	0.00
41		44 2-ClEt-Vi-ether 10	63	10	0.245	0.290	-18.3	130	0.00
42		45 c-13-di-Cl-propene	75	11	0.616	0.653	-6.1	113	0.02
43		46 t-1,3-dichloropropene			0.542	0.582	-7.3	115	0.00
44	I	47 Chlorobezene-d5			1.000	1.000	0.0	111	0.00
45		48 112-tri-Cl-Et	97	8	0.334	0.394	-18.1	122	0.00
46		49 13-di-Cl-propane	76	7	0.570	0.667	-17.1	122	0.00
47		50 Et methacrylate	69	9	0.227	0.286	-26.3#	127	0.00
48		51 di-Br-Cl-methane	129	12	0.393	0.434	-10.4	113	0.00
49	P	52 bromoform			0.276	0.332	-20.5#	121	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\98G1861\G1861Q02.D Vial: 7
Acq On : 13 Apr 98 3:59 am Operator: Eddie
Sample : f=1 18 Inst : GCMS-C
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Tue Apr 14 10:15:03 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

			Compound			AvgRF	CCRF	%Dev	Area%	Dev(min)
50		53	1,4-dichlorobutane-2			0.727	0.870	-19.7	127	0.00
51		54	MIBK			0.413	0.544	-31.6#	139	0.00
52	s	55	toluene-d8			1.181	1.251	-5.9	111	0.00
53	M,C	56	toluene			1.346	1.464	-8.7	113	0.00
54		57	2-hexanone 5			0.292	0.381	-30.6#	136	0.00
55		58	12-dibromoethane	107	10	0.376	0.452	-20.0#	124	0.00
56		59	tetra-Cl-ethene	166	16	0.341	0.362	-6.2	106	0.00
57	M,P	60	chlorobenzene	112	7	1.046	1.092	-4.3	109	0.00
58		61	1112-tetra-Cl-Et	131	13	0.335	0.366	-9.3	112	0.00
59	I	62	1,4-Dichlorobenzene-d4			1.000	1.000	0.0	122	0.00
60		63	1-chlorohexane	93	5	0.383	0.366	4.5	107	0.00
61	C	64	Et-Bz 91 106			3.499	3.458	1.2	113	0.00
62		65	m/p-Xylenes 91 106 [X2]			2.593	2.561	1.3	113	0.00
63		66	styrene 104 78			2.413	2.370	1.8	113	0.00
64		67	o-xylene 91 106			2.810	2.824	-0.5	116	0.00
65	p	68	1122-Tetra-Cl-Et	83	8	1.017	1.186	-16.6	132	0.02
66		69	123-tri-Cl-Pr	110	9	0.251	0.279	-11.4	125	0.00
67	S	70	4-Br-1-F-Bz (S3)	174	9	0.938	0.889	5.2	113	0.00
68		71	isopropylbenzene	105	12	3.470	3.345	3.6	109	0.00
69		72	bromobenzene	156	15	0.915	0.902	1.4	114	0.00
70		92	t-1,4-dichloro-2-butene			0.185	0.209	-13.0	119	0.00
71		73	n-propylbenzene	120	7	0.893	0.881	1.3	111	0.00
72		74	4-Cl-Toluene 126 128			0.824	0.809	1.8	112	0.00
73		75	2-Cl-Toluene 126 128			0.835	0.819	1.9	112	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\98G1861\G1861Q02.D Vial: 7
Acq On : 13 Apr 98 3:59 am Operator: Eddie
Sample : f=1 18 Inst : GCMS-C
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826WC019.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Tue Apr 14 10:15:03 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound			AvgRF	CCRF	%Dev	Area%	Dev(min)
74	76	135-tri-Me-Benzene			2.798	2.675	4.4	109	0.00
75	77	4-iso-Pr-toluene	119	13	2.943	2.798	4.9	110	0.00
76	78	124-tri-Me-Benzene			2.901	2.771	4.5	110	0.00
77	79	tert-butylbenzene	119	9	2.372	2.283	3.7	109	0.00
78	80	13-DCB			1.632	1.633	-0.1	117	0.00
79	81	sec-butylbenzene	105	13	3.914	3.757	4.0	109	0.00
80	82	14-DCB			1.672	1.658	0.8	116	0.00
81	83	Cl-benzyl	91	126	0.390	0.328	16.0	96	0.00
82	84	12-DCB 146 148			1.614	1.635	-1.3	119	0.00
83	85	n-butylbenzene	91	13	0.756	0.733	3.0	110	0.00
84	86	12-diBr-2-Cl-Pra	157	15	0.191	0.231	-21.1#	135	0.00
85	87	124-tri-Cl-Bz	180	18	1.306	1.301	0.4	114	0.00
86	88	naphthalene	128	12	2.674	3.046	-13.9	130	0.00
87	89	hx-Cl-butadiene	225	26	0.555	0.530	4.4	110	0.00
88	90	123-Tri-Cl-Bz	180	18	1.156	1.207	-4.5	121	0.00

356

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8260

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		CCV Data File:	G1861Q01	Instrument ID:	C

Batch No: 98G1861

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			04/12/98 15:10	1582468	12.59	1624007	19.63	848938	24.37
CCV Upper Limit				3164936	13.09	3248014	20.13	1697876	24.87
CCV Lower Limit				791234	12.09	812003	19.13	424469	23.87
1	98G1861-MB-01	98G1861-MB-01	04/12/98 16:27	2003784	12.61	1733498	19.64	854931	24.38
2	98G1861-LCS-01	98G1861-LCS-01	04/12/98 17:05	1635622	12.62	1611445	19.65	816058	24.38
3	98G1861-LSD-01	98G1861-LSD-01	04/12/98 17:44	1671397	12.61	1679200	19.65	833863	24.38
4	DMW-5	98-2332-1	04/12/98 21:00	1854397	12.60	1604321	19.63	799751	24.37
5	ES-6D	98-2332-2	04/12/98 21:38	1960190	12.60	1666292	19.63	853245	24.37
6	ES-7D	98-2332-3	04/12/98 22:16	1884525	12.60	1613119	19.63	828937	24.37
7	ES-7S	98-2332-4	04/12/98 22:54	1890943	12.60	1612977	19.63	830405	24.37
8	Field Blank	98-2332-5	04/12/98 23:33	1940803	12.60	1662627	19.63	844696	24.37
9	Field Blank-MS	98-2332-5MS	04/13/98 00:11	1554901	12.60	1576008	19.64	843893	24.36
10	Field Blank-MSD	98-2332-5MSD	04/13/98 00:49	1612875	12.60	1626254	19.64	852659	24.36
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

IS-1 = Fluorobenzene
IS-2 = Chlorobenzene-d5
IS-3 = 1,4-Dichlorobenzene-d4

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

3564

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8260

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		CCV Data File:	G1861Q02	Instrument ID:	C

Batch No: 98G1861

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			04/13/98 03:59	1631652	12.61	1635308	19.64	845605	24.37
CCV Upper Limit				3263304	13.11	3270616	20.14	1691210	24.87
CCV Lower Limit				815826	12.11	817654	19.14	422802	23.87
1	98G1861-MB-02	98G1861-MB-02	04/13/98 05:15	2046670	12.60	1732461	19.64	886063	24.38
2	ES-11D	98-2332-6	04/13/98 05:54	1940181	12.60	1677371	19.63	863871	24.37
3	ES-11S	98-2332-7	04/13/98 06:31	1830869	12.60	1612556	19.64	823901	24.37
4	ES-12S	98-2332-8	04/13/98 07:10	1435631	12.60	1286856	19.63	674975	24.36
5	ES-13D	98-2332-9	04/13/98 07:48	1936693	12.60	1679043	19.63	869614	24.36
6	ES-13S	98-2332-10	04/13/98 08:27	1955819	12.60	1693963	19.63	859470	24.36
7	ES-14D	98-2332-11	04/13/98 09:59	1861386	12.61	1621523	19.63	820741	24.36
8	ES-14S	98-2332-12	04/13/98 10:37	1960181	12.60	1711261	19.63	853116	24.36
9	TRIP BLANK	98-2332-13	04/13/98 11:15	1970163	12.59	1715956	19.63	869213	24.36
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

IS-1 = Fluorobenzene
IS-2 = Chlorobenzene-d5
IS-3 = 1,4-Dichlorobenzene-d4

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

MISCELLANEOUS

Applied P & Ch Laboratory
1760 Magnolia Ave. Chino CA 91710
(909) 590-1828 Fax: (909) 590-1498

VOC Analysis General Logbook

Sequence # 9861762 Batch # 9861762 Matrix: W Date: 4/4/98 Analyst: Zdol'e

#: IS/Surrogate: GC-7217/7218 Methanol(mark-M): _____ PEG (mark-PEG): _____ Defoaming(mark-DF): _____

Calib. + Ini. Batch ☒ Initial Batch; ☐ Middle Batch; ☐ Final Batch. ☐ Internal Study Datafile Path: _____

Op. #	Type	Sample ID	Method	V/X=f1	Vf/Vi=f2	Vepg/Vinj=f3	F	A-#	Datafile	Note	pH
77	SP	BFB	826WC19	5/5 = 1	/ =	/ =	1		BFB	4/4/98 2:25pm	
2378	Calib	019-002		/ =	/ =	/ =			019-002	GC7712/7166	
79		019-010		/ =	/ =	/ =			019-010		
80		019-020		/ =	/ =	/ =			019-020		
2381		019-050		/ =	/ =	/ =			019-050		
82		019-080		/ =	/ =	/ =			019-080		
2383		019-100		/ =	/ =	/ =			019-100		
84	SP	G1762P01		/ =	/ =	/ =			G1762P01		
85	CCV	Q01		/ =	/ =	/ =			Q01		
2386	MB	K01		/ =	/ =	/ =			K01		
87	Sample	2207-01		5/5 = 1	5/150 = 100	/ =	100		2207-01		
88		-02		/ =	/ =	/ =	100		-02		
89		-03		/ =	/ =	/ =	100		-03		
90		-04		/ =	/ =	/ =	100		-04		
2391		2211-01		/ =	/ =	/ =	1		2211-01		
92		2043-07		/ =	5/5 = 1000	/ =	1000		2043-07A		
93		-09		/ =	/ =	/ =	1000		-09A		
2394		-08		/ =	/ =	/ =	1000		-08A		
95	LCS	G1762L01		/ =	/ =	/ =	1		G1762L01		
2396	LCSD	G1762J01		/ =	/ =	/ =			J01		
97	MS	G1762M01		/ =	/ =	/ =			M01	$2211-01	
98	MSD	G1762N01		/ =	/ =	/ =			N01	$2211-01	
2399				/ =	/ =	/ =					
00				/ =	/ =	/ =					
2401				/ =	/ =	/ =					
02				/ =	/ =	/ =					
03				/ =	/ =	/ =					
2404				/ =	/ =	/ =					
05				/ =	/ =	/ =					
2406				/ =	/ =	/ =					
07				/ =	/ =	/ =					
08				/ =	/ =	/ =					

Type	Op #	STD Lot #	$C_{std}(ng/\mu L) \times V_{std}(\mu L)/X(g \text{ or } mL) = T$	Op #	STD Lot #	$C_{std}(ng/\mu L) \times V_{std}(\mu L)/X(g \text{ or } mL) = T$
LCSD	2395	GC-7689	50 × 5 /X = 50 ppb	2396	GC-7689	50 × 5 /X = 50 ppb
MS/MSD	2397	GC-7166	× /X = ppb	2398	GC-7166	× /X = ppb

Note/Anomaly:

3567

VOC-050

P & Ch Laboratory
...olla Ave. Chino CA 91710
...0-1828 Fax: (909) 590-1498

VOC Analysis General Logbook

99g1861 Batch # 98g1861 Matrix: W Date: 4/12/98 Analyst: MF

Surrogate: GC-7217/7218 Methanol(mark-M): _____ PEG (mark-PEG): _____ Defoaming(mark-DF): _____

Ini. Batch ☒ Initial Batch; ☐ Middle Batch; ☐ Final Batch. ☐ Internal Study Datafile Path: 98g1861

	Type	Sample ID	Method	$V/X=f_1$	$V_f/V_i=f_2$	$V_{spg}/V_{inj}=f_3$	F	A-#	Datafile	Note	pH
	SP	g1861P01	826WCOA	5 / 5 = 1	/ =	/ =	1		g1861P01	4/12/98 2:32pm	
	CCV	Q01		/ =	/ =	/ =			Q01	gc7734/7166	
	Mb	K01		/ =	/ =	/ =			K01		
	LCS	L01		/ =	/ =	/ =			L01		
	LCSD	J01		/ =	/ =	/ =			J01		
		2324-01B		/ =	/ =	/ =			2324-01B		
		-05A		/ =	/ =	/ =			05A		
		2332-01		/ =	/ =	/ =			2332-01		
		-02		/ =	/ =	/ =			-02		
		-03		/ =	/ =	/ =			-03		
		-04		/ =	/ =	/ =			-04		
580		-05		/ =	/ =	/ =			-05		
581	MS	g1861M01		/ =	/ =	/ =			g1861M01	$2332-05	
582	MSD	N01		/ =	/ =	/ =			N01	↓	
583	SP	P02		/ =	/ =	/ =			P02	4/13/98 3.2km	
584	CCV	Q02		/ =	/ =	/ =			Q02	gc7734/7166	
2585	Mb	K02		/ =	/ =	/ =			K02		
2586		2332-06		/ =	/ =	/ =			2332-06		
2587		-07		/ =	/ =	/ =			-07		
2588		-08		/ =	/ =	/ =			-08		
2589		-09		/ =	/ =	/ =			-09		
2590		-10		/ =	/ =	/ =			-10		
2591		2324-05B		5 / 1 = 5	/ =	/ =	5		2324-05B		
2592		2332-11		5 / 5 = 1	/ =	/ =	1		2332-11		
2593		-12		/ =	/ =	/ =			-12		
2594		-13		/ =	/ =	/ =			-13		
2595		2366-01		/ =	/ =	/ =			2366-01		
2596		-02		/ =	/ =	/ =			-02		
2597		2362-01		/ =	/ =	/ =			2362-01		
2598				/ =	/ =	/ =					
2599				/ =	/ =	/ =			MF 4/15/98		
2600				/ =	/ =	/ =					

Type	Op #	STD Lot #	$C_{std}(ng/\mu L) \times V_{std}(\mu L)/X(g \text{ or } mL) = T$	Op #	STD Lot #	$C_{std}(ng/\mu L) \times V_{std}(\mu L)/X(g \text{ or } mL) = T$
LCS/LCSD	2572	GC-7489	50 × 5 /X= 50 ppb	2573	GC-7489	50 × 5 /X= 50 ppb
MSD	2581	GC-7166	× /X= ppb	2582	GC-7166	× /X= ppb

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Footnote/Anomaly:

MF 4/15/98

13760 Magnoli e. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL GC Stand d Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Catal #/Lot #/EXT #	Solvent Name/Supplier/Catal #/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expired Date
GC-7709	C#: Dixuron Std Stock	1	Dixuron Sup: Chem Ser Cat.: F2371 Lot: 174-10A EX- 2752	Acc Sup: B&J Cat.: 015-4 Lot: BP953 EX-	40mg x / 40 ml = 1000ppm	3/27/98	JD	KJ	9/27/98
GC-7710	C#: Hydraulic Oil STD#4	1	gc7703 Sup: Cat.: Lot: EX-	Sup: Fisher Cat.: D13-14 Lot: 962900 EX-	2.5ml x 10000ppm / 50ml = 500ppm	3/27/98	wf	KJ	9/26/98
GC-7711	C#: Hydraulic Oil STD#5	1	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	100ml x 10000ppm / 50ml = 2000ppm wf 3/27/98	↓	↓	↓	↓
GC-7712	C#: VOC gas	1	Sup: Acc Ser Cat.: A-5281 Lot: A7080225 EX- 3434	NaOH Sup: B&J Cat.: 237-1 Lot: B0084 EX- 3088	1ml x 200ppm / 4ml = 50ppm	3/30/98	Zaldu	KJ	4/6/98
GC-7713	C#: VOC gas	1	Sup: Acc Ser. Cat.: Lot: A7010268 EX- 2958	Sup: Cat.: Lot: EX-	1ml x 200ppm / 4ml = 50ppm	3/30/98	Zaldu	KJ	4/6/98
GC-7714	C#: 8140 LCS	B10 109	Sup: Cat.: Lot: EX-	Acetone Sup: B&J Cat.: 010-4 Lot: BR422 EX- 3322	x / = 5.0 ppm	3/31/98	Jeff	KJ	9/31/98
GC-7715	C#: VOC Calib	1	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 200ppm	3/31/98	Zaldu	↓	4/7/98
GC-7716	C#: α,γ-Chlordane CCV	B10 110	Sup: Cat.: Lot: EX-	Hexane Sup: Fisher Cat.: H307-4 Lot: 967831 EX- 3037	x / 100 ml = 50ppb	4/1/98	KJ	MJ	10/1/98
GC-7717	C#: α,γ-Chlordane STOCK	B10 111	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 1000ppb	4/1/98	KJ	MJ	4/1/99
GC-7718	C#: α,γ-Chlordane STD 1	B101 112	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 5 ppb	4/1/98	KJ	MJ	10/1/98
GC-7719	C#: α,γ-Chlordane STD 2	B101 113	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 25 ppb	↓	↓	↓	↓
GC-7720	C#: α,γ-Chlordane STD 3	B101 114	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 50 ppb	↓	↓	↓	↓

STD solution (daughter solution) expiration date must be earlier than that of Stock (parent solution).

APCL form 7-102 Ver. 4.0 April 10, 1995 No pencil. Use blue pen for record. Use red pen for correction.

FILE-ROOT: [CUST.DOC.GC]GC_STD_ROOT.TEX FILE: [CUST.DOC.GC]GC_STD_LOGBOOK.TEX

Applied Chemical Laboratory
13760 Magnolia Ave., Chino, CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL GC Standard Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Catal #/Lot #/EXT #	Solvent Name/Supplier/Catal #/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expired Date
GC-7733	C#: CLP VOC gas	B10/120	Sup: Supelco Cat.: 4-8739 Lot: L.5.14 EX-2354	Sup: B&J Cat.: 232-1 Lot: B0084 EX-3088	$\frac{\times}{1ml} = 100ppm$	4/7/98	MF	[illegible]	4/10/[illegible]
GC-7734	C#: VOC gas	1	Sup: ACCSTD Cat.: Lot: A70102698 EX-2938	Sup: Cat.: Lot: EX-	$\frac{1ml \times 200ppm}{4ml} = 50ppm$	4/6/98	[illegible]	↓	4/13/98
GC-7735	C#: CLP BNA 25ppm	1	Sup: 156C0230 GL7244 Cat.: Lot: EX- 10ml	Sup: CH_2Cl_2 Cat.: Lot: EX-	$\frac{125 \times 200}{1000} = 25ppm$	4/8/98	MJ	↓	4/15/98
GC-7736	C#: CLP-SVOC IS 400ppm	1	Sup: Accustd Cat.: 2-0147 Lot: A70101176 EX-	Sup: CH_2Cl_2 Cat.: Lot: EX-	$\frac{4000 \times 1ml}{10ml} = 400ppm$	4/8/98	MJ	↓	4/8/99
GC-7737	C#: TETRACHLOROETHYLENE	1	Sup: GC7670 Cat.: Lot: EX-	Sup: B+J MeOH Cat.: 232-1 Lot: B0084 EX-3088	$\frac{1ml \times 10,000ppm}{10ml} = 1000ppm$	4-7-98	LL	[illegible]	10-7-98
GC-7738	C#: C1-C3-Acid Stock	B10/121	Sup: Cat.: Lot: EX-	Sup: D_2H_2O Cat.: Lot: EX-	$\frac{\times}{} = 1000ppm$	4-7-98	JD	[illegible]	4-7-99
GC-7739	C#: 548 spike STD 2000 ppb (LCS, MS).	1	Sup: Ultra. endothall Cat.: IPS-211 Lot: EX- 7/98 1960	Sup: Fisher MeOH Cat.: A4554 Lot: 962467 EX- 2622.	$\frac{50.0ppm \times 1.0ml}{25.0ml} = 2.0ppm$	4-8-98	DW.	[illegible]	4-8-99
GC-7740	C#: CH_4 Stock	1	Sup: Aldrich CH_4 Cat.: 95477 Lot: 03228EY EX-	Sup: Helium Cat.: Lot: EX-	$\frac{43ml \times 10^6 ppmV}{43ml} = 10^6 ppmV$	4/3/98	[illegible]	[illegible]	4/12/98
GC-7741	C#: CH_4 STD	1	Sup: GC7740 Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{0.215ml \times 10^6 ppmV}{43ml} = 50ppmV$	4/9/98	[illegible]	[illegible]	4/12/98
GC-7742	C#: CLP-VOC IS	1	Sup: Pure Std Cat.: CLP-M-125 Lot: 083-069 EX- 3584	Sup: B+J MeOH Cat.: 232-1 Lot: B0084 EX- 3088	$\frac{1.5ml \times 250ppm}{7.5ml} = 50ppm$ 4/7/98	4/10/98	MF	[illegible]	4/17/98
GC-7743	C#: CLP-VOC Surr	1	Sup: Pure Std Cat.: CLP-P-PA12 Lot: A6301212 EX- 3575	Sup: Cat.: Lot: EX-	$\frac{0.5ml \times 250ppm}{2.5ml} = 50ppm$	↓	↓	↓	↓
GC-7744	C#: CLP-VOC gas	B10/122	Sup: Ultra Cat.: DAW-584 Lot: 10513 EX- 3219	Sup: Cat.: Lot: EX-	$\frac{\times}{1ml} = 100ppm$	↓	↓	↓	↓

STD solution (daughter solution) expiration date must be earlier than that of Stock (parent solution).

APCL form T-102 Ver. 4.0 April 10, 1995 No pencil. Use blue pen for record. Use red pen for correction.

FILE ROOT: [CUST.DOC.GC]GC.STD.ROOT.TEX FILE: [CUST.DOC.GC]GC.STD.LOGBOOK.TEX

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APCL GC Standard Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Catal #/Lot #/EXT #	Solvent Name/Supplier/Catal #/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expired Date
GC-7484	C#: 8081 PE	B10/42	Sup: Cat.: Lot: EX-	Hexane Sup: Fisher Cat.: H307-4 Lot: 967831 EX- 3037	x / 100ml = 50ppb	KJ	2/12/98	Leo	8/12/98
~~GC-788~~	C#: yrs 2/12/98	1	Void Sup: Cat.: Lot: EX- yrs	Sup: Cat.: 2/12/98 Lot: EX-	x / =		yrs		
GC-7485	C#: 507 (8) Stock	B10/43	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 10 ppm	Leo	2/12/98	BD	2/12/99
GC-7486	C#: VOC add 22 Compounds	A41022	Sup: Cat.: Lot: EX-	MeOH Sup: B&J Cat.: 232-1 Lot: BQ041 EX-	x / 10ml = 1000ppm	Jen	2/12/98	Leo	8/12/98
GC-7486	C#: 507 STD 1	B10/44	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 1 ppm	Leo	2/12/98	BD	8/12/98
GC-7487	C#: 507 STD 2	B10/45	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 3 ppm	↓	↓	↓	↓
GC-7488	C#: 507 STD 3	B10/46	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 5 ppm	↓	↓	↓	↓
GC-7489	C#: VOC liq STD	B10/47	Sup: Accustandard Cat.: M-502A-K PAK Lot: A7080052 EX- 3596	MeOH Sup: B&J Cat.: 232-1 Lot: BQ441 EX-	1ml x 200ppm / 4ml = 50ppm	Jen	2/13/98	Leo	8/13/98
GC-7490	C#: VOC liq STD	B10/48	Sup: Ultra Cat.: DWM-582-1 Lot: L-1055 EX- 3681	↓ Sup: Cat.: Lot: EX-	1ml x 200ppm / 4ml = 50ppm	Jen	2/13/98	↓	8/13/98
GC-7491	C#: VOC gas STD	1	Sup: Accustandard Cat.: M-502R1 Lot: A7080225 EX- 3434	MeOH Sup: B&J Cat.: 232-1 Lot: B0084 EX- 3088	1ml x 200ppm / 4ml = 50ppm	2/13/98	MF	↓	2/20/98
GC-7492	C#: VOC gas STD	1	Sup: Accustandard Cat.: Lot: A7010218 EX- 2358	↓ ↓ Sup: ↓ Cat.: Lot: EX-	1ml x 200ppm / 4ml = 50ppm	2/13/98	MF	↓	2/20/98
GC-7493	C#: 551 STD	1	Sup: Ultra Cat.: THM-501 Lot: J-2319 EX- 2794	MeOH Sup: Fisher Cat.: A453-1 Lot: 965842 EX- 2872	1ml x 100ppm / 10ml = 10 ppm	2/13/98	Leo	↓	8/13/98

STD solution (daughter solution) expiration date must be earlier than that of Stock (parent solution).

APCL form ... 4-9 April 10, 1995 No pencil. Use blue pen for record. Use red pen for corre...

FILE-ROO... T.DOC.GC|GC.STD.ROOT.TEX FILE: [CUST.DOC.GC]GC.STD.LOGBOOK.TE...

357

[illegible] & Ch Laboratory
[illegible] Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL GC Standard Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Catal #/Lot #/EXT #	Solvent Name/Supplier/Catal #/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expire Date
GC-7214	C#: 8270 add 3	B9/102	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x ___ = 1000ppm	12/1/97	[illegible]	[illegible]	12/1/9[illegible]
GC-7215	C#: 8270 LCS (full spike)	B9/104	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x ___ =	↓	↓	↓	↓
GC-7216	C#: 8270 std	B9/105	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x ___ =	↓	↓	↓	↓
GC-7217	C#: IS/8240/8260	/	Sup: Ultra Scientific Cat.: STM-520 Lot: K-0244 EX- 3021	Sup: B & J Cat.: 232-1 Lot: B0084 EX- 3088	0.8ml × 2500ppm / 40 ml = 50ppm	12/2/97	HC	[illegible]	6/2/9[illegible]
~~GC-7218~~	~~Surrogate C#: 8240/8260~~	~~/~~	~~Sup: Ultra Scientific Cat.: STM-520 Lot: K-0244 EX- 3021~~	~~Sup: B & J Cat.: 232-1 Lot: B0084 EX- 3088~~	~~0.8ml × 2500ppm / 40 ml = 50ppm~~	~~12/2/97~~	~~Void HC~~	~~H~~	~~12/ 6/2/98~~
GC-7218	Surrogate C#: 8240/8260	/	Sup: Ultra Scientific Cat.: STM-530 Lot: K0245 EX- 3022	Sup: B & J Cat.: 232-1 Lot: B0084 EX- 3088	0.8ml × 2500ppm / 40 ml = 50ppm	12/2/97	HC	[illegible]	6/2/98
GC-7219	Voc C#: Liquid - Std	B9/106	Sup: Accustandard Cat.: M-502A-R-PAK Lot: A7030442 EX- 3320	Sup: ↓ Cat.: Lot: EX-	x 2000ppm / 4 ml = 50 ppm	12/2/97	HC	[illegible]	6/2/98
GC-7220	Voc C#: Liquid - Std	B9/107	Sup: Accustandard Cat.: M-502A-R-10X Lot: A7040270 EX- 3177	Sup: ↓ Cat.: Lot: EX-	x 2000ppm / 40 ml = 50ppm	↓	↓	↓	↓
GC-7221	CLP-BNA C#: 25ppm	/	GC 5875 Sup: IS GC6230 (opt) Cat.: Lot: EX-	CH_2Cl_2 Sup: Fisher Cat.: L299-4 Lot: BP437 EX-	125 × 200 / 1000 = 25ppm	12/2/97	Eddie	[illegible]	12/9/97
GC-7222	CLP-SVOC C#: LCS	B9/108	Sup: Cat.: Lot: EX-	MeOH Sup: B & J Cat.: 230-4 Lot: BP939 EX- 3431	x ___ = 50/25ppm	12/3/97	Jeff	[illegible]	6/3/98
✓ GC-7223	DIESEL STOCK STAN. STOCK C#: ~~AIR FORCE~~	A4/007	Sup: Cat.: Lot: EX-	See. A4/007. Sup: Cat.: Lot: EX-	x ___ = 50000 ppm	12/3/97	James	[illegible]	12/3/9[illegible]
✓ GC-7224	C28 C#: Stoc.	A4/008	Sup: Cat.: Lot: EX-	See A4/008 Sup: Cat.: Lot: EX-	x ___ = 5000 ppm	12/3/97	James	[illegible]	12/3/98

STD solution (daughter solution) expiration date must be earlier than that of Stock (parent solution).

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FILE-ROOT: [CUST.DOC.GC]GC.STD.ROOT.TEX FILE: [CUST.DOC.GC]GC.STD.LOGBOOK.TEX

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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL GC Standard Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Catal #/Lot #/EXT #	Solvent Name/Supplier/Catal #/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expired Date
GC-7166	Voc C#: Liquid. Std	B9/88	Sup: Accustandard Cat.: M-502A-R-04 Lot: A7040270 EX- 3177	MeOH Sup: B&J Cat.: 232-1 Lot: B0084 EX- 3088	$\frac{\times 2000ppm}{40 ml} = 50ppm$	11/17/97	HC	[illegible]	5/17/98
GC-7167	8270 STD C#: Appendix IX	B9/89	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{(each)\ 1ml \times 2000ppm}{20ml} = 100ppm$	11/17/97	Eddie	[illegible]	11/17/98
GC-7168	601/8010/8020 C#: GAS	1	Sup: Accustandard Cat.: M-502B-PAK Lot: A7080225 EX- 3434	MeOH Sup: B&J Cat.: 232-1 Lot: B0084 EX- 3088	$\frac{1mL \times 200ppm}{8ml} = 25ppm$	11/18/97	HC	[illegible]	11/25/97
GC-7169	601/8010/8020 C#: GAS	1	Sup: Ultra Cat.: DWM-584-1 Lot: L0503 EX- 3219	Sup: Cat.: Lot: EX-	$\frac{1mL \times 200ppm}{8ml} = 25ppm$	11/18/97	HC	[illegible]	11/25/97
GC-7170	601/8010/8020 C#: Liquid	B9/90	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{\times}{} = 250ppm$	11/18/97	HC	[illegible]	1/1/98
GC-7171	CLP-BNA C#: 25ppm	1	GC 5875 Sup: TS GC6230 10µl ~~[illegible]~~ Cat.: Lot: EX- 4/19/97	CH2Cl2 Sup: Fisher Cat.: L299-4 Lot: BP437 EX-	$\frac{1.25 \times 200ppm}{1000} = 25ppm$	11/19/97	Eddie	[illegible]	11/26/97
GC-7172	CLP-VOC C#: IS	1	CLP-R0.25-PAK Sup: Accustandard Cat.: Lot: 074-18 EX- 3339	MeOH Sup: B&J Cat.: 232-1 Lot: B0084 EX- 3088	$\frac{0.5ml \times 250ppm}{2.5ml} = 50ppm$	11/19/97	HC	[illegible]	11/26/97
GC-7173	CLP-VOC C#: Surrogate	1	CLP-SI-PAK Sup: Accustandard Cat.: Lot: 103-196 EX- 3340	Sup: Cat.: Lot: EX-	$\frac{0.5ml \times 250ppm}{2.5ml} = 50ppm$				
GC-7174	CLP-VOC C#: GAS	B9/91	Sup: Supeko Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{\times}{1ml} = 100ppm$				
GC-7175	CLP-VOC C#: GAS	B9/92	Sup: Ultra Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{\times}{1ml} = 100ppm$				
GC-7176	VOC C#: GAS Std	1	Sup: Accustandard Cat.: M5028-R Lot: A7010268 EX- 2958	MeOH Sup: B&J Cat.: 232-1 Lot: B0084 EX- 3088	$\frac{1mL \times 200ppm}{4mL} = 50ppm$	11/21/97 HC	HC	[illegible]	11/28/97
GC-7177	VOC C#: GAS Std	1	Sup: Ultra Cat.: DWM 584-1 Lot: L0503 EX- 3219	Sup: Cat.: Lot: EX-	$\frac{1ml \times 200ppm}{4mL} = 50ppm$	11/21/97 HC	HC	[illegible]	11/28/97

STD solution (d[illegible]ter solution) expiration date must be earlier than that of Stock (parent solution).
APCL form 7-[illegible] 4.0 April 10, 1995 No pencil. Use blue pen for record. Use red pen for correctio[illegible]
FILE-ROOT: [CUST.DOC.GC]GC.STD_ROOT.TEX FILE: [CUST.DOC.GC]GC.STD_LOGBOOK.TEX

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Tel: (909) 590-1828 Fax: (909) 590-1498

GC STD Preparation-B

STD Title: VOC-Liquid | APCL Cat. #: GC 7166 | Lot #: GC 7166 | Volume (V): 40 mL

Solvent: MeOH | Supplier: B & J | Catal. #: 232-1 | Lot #: B0284

Prprd by: HC | Verified by: | Peprd date: 11/17/97 | Expire date: 5/17/98

#	Stock Solution	Supplier	Cat # /Lot #	Volume	$\frac{V_{stock} \times C_{stock}}{V_{total}} = C_{dil}$
1	VOC - Mixture	Accustandard	C-#: M-502A-R-10X L-#: A704070 EX- 3177	1 ml	$\frac{1 ml \times 5000 ppm}{40 ml} = 50 ppm$
2	Apcl - Add 1	APCL	C-#: GC 6128 L-#: EX-	0.4 ml	$\frac{0.4 ml \times 5000 ppm}{40 ml} = 50 ppm$
3			C-#: L-#: EX-		× =
4			C-#: L-#: EX-		× =
5			C-#: L-#: EX-		× =
6			C-#: L-#: EX-		× =
7			C-#: L-#: EX-		× =
8			C-#: L-#: EX-		× =
9			C-#: L-#: EX-		× =
10			C-#: L-#: EX-		× =
11			C-#: L-#: EX-		× =
12			C-#: L-#: EX-		× =
13			C-#: L-#: EX-		× =
14			C-#: L-#: EX-		× =
15			C-#: L-#: EX-		× =
16			C-#: L-#: EX-		× =
17			C-#: L-#: EX-		× =
18			C-#: L-#: EX-		× =
			Subtotal volume of stock solutions	1.4 ml	
			Solvent balaced:	38.6 ml	
			Add solvent to :	40.0 ml	

HC 11/17/97

HC 11/17/97

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ROOT-FILE:[APCL.DOC.GC]GCSTDPRP2_ROOT.TEX FILE:[APCL.DOC.GC]GCSTDPRP2 .TEX

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Tel: (909) 590-1828 Fax: (909) 590-1498

GC STD Preparation-B

STD Title VOC liq STD. APCL Cat. #: GC7489 Lot #: GC7489 Volume (V) 4 mL

Solvent MeOH Suppler R&J Catal. # 232-1 Lot # 80441

Prprd by [signature] Verified by _____ Peprd date: 2/13/98 Expire date: 8/13/98

#	Stock Solution	Supplier	Cat # /Lot #	Volume	$\frac{V_{stock} \times C_{stock}}{V_{total}} = C_{dil}$
1	Volatile Organic compounds	Accustandard	C-#: M-502A-R-PAK L-#: A 7080052 EX- 3596	1 ml	$\frac{1ml \times 200ppm}{4ml} = 50ppm$
2	APCL add 21.	APCL	C-#: L-#: GC6128 EX-	0.04ml	$\frac{0.04ml \times 5000ppm}{4ml} = 50ppm$
3			C-#: L-#: EX-		x =
4			C-#: L-#: EX-		x =
5			C-#: L-#: EX-		x =
6			C-#: L-#: EX-		x =
7			C-#: L-#: EX-		x =
8			C-#: L-#: EX-		x =
8			C-#: L-#: EX-		x =
10			C-#: L-#: EX-		x =
11			C-#: L-#: EX-		x =
12			C-#: L-#: EX-		x =
13			C-#: L-#: [signature] 2/13/98		x =
14			C-#: L-#: EX-		x =
15			C-#: L-#: EX-		x =
16			C-#: L-#: EX-		x =
17			C-#: L-#: EX-		x =
18			C-#: L-#: EX-		x =
			Subtotal volume of stock solutions	1.04ml	
			Solvent balaced:	2.96 ml	
			Add solvent to :	4ml	

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FILE:[APCL.DOC.GC]GCSTDPRP2_ROOT.TEX FILE:[APCL.DOC.GC]GCSTDPRP2.TEX

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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL GC Standard Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Cat#/Lot#/EXT#	Solvent Name/Supplier/Cat#/Lot#/EXT#	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expire Date
GC6120	Methanol C#: STD 1	1	Sup: Cat.: GC6119 Lot: EX-	Sup: Cat.: Lot: DW-1084 EX-	$\frac{0.01\ ml \times 10^3 ppm}{10\ ml} = 1\ ppm$	3/24/97	[illegible]	KJ	9/24/[illegible]
GC6121	Methanol C#: STD 2	1	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{0.05\ ml \times 10^3 ppm}{10\ ml} = 5\ ppm$	↓	↓	↓	↓
GC6122	Methanol C#: STD 3	1	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{0.1\ ml \times 10^3 ppm}{10\ ml} = 10\ ppm$	↓	↓	↓	↓
GC6123	8080 STD1 C#:	B7/108	Sup: APCL Cat.: GC-5161 Lot: EX-	Sup: Fisher Cat.: H367-4 Lot: 967831 EX- 2973	$\frac{x}{40\ ml} = 5\ ppb$	3/25/97	KJ	[illegible]	9/3/9[illegible]
GC6124	8080 STD2 C#:	B7/109	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{x}{40\ ml} = 25\ ppb$	↓	↓	↓	↓
GC6125	8080 STD3 C#:	B7/110	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{x}{40\ ml} = 50\ ppb$	↓	↓	↓	↓
GC6126	8080 STD4 C#:	B7/111	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{x}{40\ ml} = 75\ ppb$	↓	↓	↓	↓
GC6127	8080 STD5 C#:	B7/112	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{x}{40\ ml} = 100\ ppb$	↓	↓	↓	↓
GC6128	VOC add. 21 compound C#:	A3/123	Sup: Cat.: Lot: EX-	Sup: Fisher Cat.: MeOH A453-1 Lot: 965846 EX- 2865	$\frac{x}{} = 500\ ppm$	3/25/97	Jc	[illegible]	3/25/9[illegible]
GC6129	VOC CLP IS C#:	1	Sup: Accustandard Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{0.5\ ml \times 250 ppm}{2.5} = 50\ ppm$	3/26/97	Jc	↓	4/2/97
GC6130	VOC CLP Surrogate C#:	1	Sup: Accustandard Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	$\frac{0.5\ ml \times 250 ppm}{2.5} = 50\ ppm$	3/26/97	Jc	↓	4/2/9[illegible]
GC6131	VOC 995 STD C#:	1	Sup: Supelco Cat.: 4-8799 Lot: LA54991 EX- 2326	Sup: Fisher Cat.: MeOH A453-1 Lot: 965842 EX- 2872	$\frac{0.1\ ml \times 2000 ppm}{4\ ml} = 50\ ppm$	3/26/97	Eddie	[illegible]	4/2/97

STD solution (daughter solution) expiration date must be earlier than that of Stock (parent solution).

APCL form 7-102 Ver. 4.0 April 10, 1995 No pencil. Use blue pen for record. Use red pen for correction.

FILE-ROOT: [CUST.DOC.GC]GC.STD.ROOT.TEX FILE: [CUST.DOC.GC]GC.STD.LOGBOOK.TEX

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13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

GCSTDPRP1-1

GC STD Preparation-A

STD Title VOC add 21 APCL-Cat #: GC6128 APCL-LOT #: GC6128 Rep. Conc. (c): 5000 µg/mL (ppm)

Solvent MeOH Solv. supplier Fisher Solv. Lot # 965842 STD Volume (V) 10. mL

i	Compound	B.P.	d_i	Supplier	Lot #	η_i	M_i	f_i	v_i	w_i	c_i, µg/mL
1	Benzyl chloride	180	1.1	Aldrich	12127CX	0.99		1	46		5010
2	1-4-di-Cl-butane	161	1.16		03618HM	0.99		1	44		5100
3	1-Chlorohexane	133	0.879		05107LK	0.99		1	58		5050
4	2-Hexanone	128	0.811		01418EM	0.99		5	215		25290
5	Ethyl-methacrylate	118	0.917		06126PX	0.99		1	55		4993
6	MIBK	118	0.796		06809EY	0.99		1	62.5		4925
7	Methyl methacrylate	100	0.936		06616ZY	0.99		1	54		5004
8	MEK (2 butanone)	80	0.810		11002HW	0.997		10	620		50070
9	Acetonitrile	82	0.786		04515HX	0.999		10	635		49860
10	Acrylonitrile	77	0.802		03114LX	0.99		10	630		50020
11	Tetrahydrofuran	67	0.886	EM	9264	0.945		5	283		24948
12	Acetone	56	0.787	Aldrich	04405CY	0.999		10	635		49975
13	Thiophene	84	1.052		04015AZ	0.99		1	48		4999
14	T-butyl methyl-ether	55	0.758		06221TW	0.99		2	135		19[illegible]
15	Acrolein	53	0.841		05280CX	0.97		10	615		50[illegible]
16	Carbon disulfide	46	1.262		03528AY	0.999		1	40		5043
17	Iodomethane	42	2.28		00231EY	0.995		1	22		4991
18	Ethyl ether	35	0.708	Aldrich	Z24250	0.999		5	350		24780
19	F113	47	1.575	Baker	00201PY	0.999		1	32		5040
20	Vinyl Acetate	72	0.934	Aldrich	~~12011ZW~~	0.99		~~10~~	~~480~~		~~49800~~
21	2-Cl-Et-vi-ether	109	1.048	Aldrich	05530AY 12011ZW	0.99		5 10	270 480		24760 49800
22											
23							Solvent =	4570 µl			
24							MeOH:	4.57 ml × 0.791 (d) = 3.6149			
25											

Notation: d_i – density (for liquid only), in g/mL; η_i – assay (for all reagent); M_i – Mol. weight (for gas compound only);

f_i – concentration weight factor, if the conc. is equal to Rep. cont. $f_i = 1$;

v_i – volume should be used, in µL for liquid and in mL for gas; w_i – weight should be used, in gram (for soilid only).

Basic Formulae

$$v_i(\mu L) = 0.001\,\frac{V\,f_i\,c}{d_i\,\eta_i}, \quad c_i(\mu g/mL) = 1000\,\frac{v_i\,d_i\,\eta_i}{V}. \qquad \text{for Liquid compound}$$

$$v_i(mL) = 0.02445\,\frac{V\,f_i\,c}{M_i\,\eta_i}, \quad c_i(\mu g/mL) = 40.90\,\frac{v_i\,M_i\,\eta_i}{V}. \qquad \text{for Gas compound}$$

$$w_i(g) = \frac{V\,f_i\,c}{\eta_i} \times 10^{-6}, \quad c_i(\mu g/mL) = \frac{w_i\,\eta_i}{V} \times 10^{6}. \qquad \text{for Solid compound}$$

Cald. by Dave Jai Date 3/25/97 Checked by _____ Date _____

Prepared by Dave Jai Date 3/25/97 Analyzed by _____ Date _____ 3577

Approved by _____ Date _____ Expire date 3/25/98

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Level C Data Package Deliverables

Semivolatile Organics

Applied P & Ch Laboratory

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/14/98
Project ID:	NTC	Service ID:	982332	Collected by:	
		Lab Sample ID:	98G1899-MB-01	Received Date:	04/14/98
Sample ID:	98G1899-MB-01	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/17/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	18:54
Data File Name:	G1899K01	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	< 10	U
2	Acenaphthylene	208-96-8	µg/L	10	< 10	U
3	Acetophenone	98-86-2	µg/L	10	< 10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	< 10	U
5	Aniline	62-53-3	µg/L	10	< 10	U
6	Anthracene	120-12-7	µg/L	10	< 10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	< 10	U
8	Benzidine	92-87-5	µg/L	20	< 20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	< 10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	< 10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	< 10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	< 10	U
13	Benzoic acid	65-85-0	µg/L	50	< 50	U
14	Benzyl alcohol	100-51-6	µg/L	20	< 20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	< 10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	< 10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	< 10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	< 10	U
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	< 10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	< 10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	< 20	U
22	4-Chloroaniline	106-47-8	µg/L	20	< 20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	< 10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	< 10	U
25	2-Chlorophenol	95-57-8	µg/L	10	< 10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	< 10	U
27	Chrysene	218-01-9	µg/L	10	< 10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	< 10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	< 10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	< 10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	< 10	U
32	Dibenzofuran	132-64-9	µg/L	10	< 10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	< 10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	< 10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	< 10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	< 10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	< 10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	< 10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	< 10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	< 10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

3580

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	54	
2	2-Fluorophenol	367-12-4		21- 99	70	
3	Nitrobenzene-d5	4165-60-0		35-113	62	
4	Phenol-d5	4165-62-2		10- 93	61	
5	Terphenyl-d14	1718-51-0		33-140	97	
6	2,4,6-Tribromophenol	118-79-6		10-122	60	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	147	
2	Chrysene-d12	1719-03-5		50-200	106	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	133	
4	Naphthalene-d8	1146-65-2		50-200	155	
5	Perylene-d12	1520-96-3		50-200	145	
6	Phenanthrene-d10	1517-22-2		50-200	154	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

3581

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-1	Received Date:	04/08/98
Sample ID:	DMW-5	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/17/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	20:47
Data File Name:	2332-01	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	5	J
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

3582

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

3583

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	74	
2	2-Fluorophenol	367-12-4		21- 99	51	
3	Nitrobenzene-d5	4165-60-0		35-113	76	
4	Phenol-d5	4165-62-2		10- 93	31	
5	Terphenyl-d14	1718-51-0		33-140	118	
6	2,4,6-Tribromophenol	118-79-6		10-122	69	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	122	
2	Chrysene-d12	1719-03-5		50-200	81	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	135	
4	Naphthalene-d8	1146-65-2		50-200	154	
5	Perylene-d12	1520-96-3		50-200	106	
6	Phenanthrene-d10	1517-22-2		50-200	120	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

3584

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-2	Received Date:	04/08/98
Sample ID:	ES-6D	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/29/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	18:43
Data File Name:	2332-02	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	< 10	U
2	Acenaphthylene	208-96-8	µg/L	10	< 10	U
3	Acetophenone	98-86-2	µg/L	10	< 10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	< 10	U
5	Aniline	62-53-3	µg/L	10	< 10	U
6	Anthracene	120-12-7	µg/L	10	< 10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	< 10	U
8	Benzidine	92-87-5	µg/L	20	< 20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	< 10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	< 10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	< 10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	< 10	U
13	Benzoic acid	65-85-0	µg/L	50	< 50	U
14	Benzyl alcohol	100-51-6	µg/L	20	< 20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	< 10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	< 10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	< 10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	< 10	U
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	< 10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	< 10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	< 20	U
22	4-Chloroaniline	106-47-8	µg/L	20	< 20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	< 10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	< 10	U
25	2-Chlorophenol	95-57-8	µg/L	10	< 10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	< 10	U
27	Chrysene	218-01-9	µg/L	10	< 10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	< 10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	< 10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	< 10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	< 10	U
32	Dibenzofuran	132-64-9	µg/L	10	< 10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	< 10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	< 10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	< 10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	< 10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	< 10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	< 10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	< 10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	< 10	U

3585

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	<10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	<10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	<10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	<50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	<50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	<50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	<10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	<10	U
49	Diphenylamine	122-39-4	µg/L	10	<10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	<10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	<10	U
52	Fluoranthene	206-44-0	µg/L	10	<10	U
53	Fluorene	86-73-7	µg/L	10	<10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	<10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	<10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	<10	U
57	Hexachloroethane	67-72-1	µg/L	10	<10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	<10	U
59	Isophorone	78-59-1	µg/L	10	<10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	<10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	<10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	<10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	<10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	<10	U
65	Naphthalene	91-20-3	µg/L	10	<10	U
66	1-Naphthylamine	134-32-7	µg/L	10	<10	U
67	2-Naphthylamine	91-59-8	µg/L	10	<10	U
68	2-Nitroaniline	88-74-4	µg/L	50	<50	U
69	3-Nitroaniline	99-09-2	µg/L	50	<50	U
70	4-Nitroaniline	100-01-6	µg/L	50	<50	U
71	Nitrobenzene	98-95-3	µg/L	10	<10	U
72	2-Nitrophenol	88-75-5	µg/L	10	<10	U
73	4-Nitrophenol	100-02-7	µg/L	50	<50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	<10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	<10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	<10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	<10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	<10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	<50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	<50	U
81	Phenacetin	62-44-2	µg/L	10	<10	U
82	Phenanthrene	85-01-8	µg/L	10	<10	U
83	Phenol	108-95-2	µg/L	10	<10	U
84	2-Picoline	109-06-8	µg/L	20	<20	U
85	Pronamide	23950-58-5	µg/L	10	<10	U
86	Pyrene	129-00-0	µg/L	10	<10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	<10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	<10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	<10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	<10	U

3586

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	43-115	65
2	2-Fluorophenol	367-12-4	21- 99	48
3	Nitrobenzene-d5	4165-60-0	35-113	73
4	Phenol-d5	4165-62-2	10- 93	41
5	Terphenyl-d14	1718-51-0	33-140	98
6	2,4,6-Tribromophenol	118-79-6	10-122	84
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	112
2	Chrysene-d12	1719-03-5	50-200	62
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	89
4	Naphthalene-d8	1146-65-2	50-200	109
5	Perylene-d12	1520-96-3	50-200	102
6	Phenanthrene-d10	1517-22-2	50-200	103
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

3587

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-3	Received Date:	04/08/98
Sample ID:	ES-7D	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep Date:	04/14/98	Anal. Date:	04/17/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	22:00
Data File Name:	2332-03	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	< 10	U
2	Acenaphthylene	208-96-8	µg/L	10	< 10	U
3	Acetophenone	98-86-2	µg/L	10	< 10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	< 10	U
5	Aniline	62-53-3	µg/L	10	< 10	U
6	Anthracene	120-12-7	µg/L	10	< 10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	< 10	U
8	Benzidine	92-87-5	µg/L	20	< 20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	< 10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	< 10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	< 10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	< 10	U
13	Benzoic acid	65-85-0	µg/L	50	< 50	U
14	Benzyl alcohol	100-51-6	µg/L	20	< 20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	< 10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	< 10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	< 10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	5	J
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	< 10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	< 10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	< 20	U
22	4-Chloroaniline	106-47-8	µg/L	20	< 20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	< 10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	< 10	U
25	2-Chlorophenol	95-57-8	µg/L	10	< 10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	< 10	U
27	Chrysene	218-01-9	µg/L	10	< 10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	< 10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	< 10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	< 10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	< 10	U
32	Dibenzofuran	132-64-9	µg/L	10	< 10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	< 10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	< 10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	< 10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	< 10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	< 10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	< 10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	< 10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	< 10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	96	
2	2-Fluorophenol	367-12-4		21- 99	78	
3	Nitrobenzene-d5	4165-60-0		35-113	108	
4	Phenol-d5	4165-62-2		10- 93	51	
5	Terphenyl-d14	1718-51-0		33-140	181	
6	2,4,6-Tribromophenol	118-79-6		10-122	105	
# of out-of-control					1	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	104	
2	Chrysene-d12	1719-03-5		50-200	73	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	99	
4	Naphthalene-d8	1146-65-2		50-200	113	
5	Perylene-d12	1520-96-3		50-200	93	
6	Phenanthrene-d10	1517-22-2		50-200	108	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

3590

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-23	Received Date:	04/08/98
Sample ID:	ES-7DRE	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/29/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	19:20
Data File Name:	2332-03	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	<10	U
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

3591

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

3592

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	67	
2	2-Fluorophenol	367-12-4		21- 99	45	
3	Nitrobenzene-d5	4165-60-0		35-113	76	
4	Phenol-d5	4165-62-2		10- 93	47	
5	Terphenyl-d14	1718-51-0		33-140	102	
6	2,4,6-Tribromophenol	118-79-6		10-122	77	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	101	
2	Chrysene-d12	1719-03-5		50-200	53	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	80	
4	Naphthalene-d8	1146-65-2		50-200	100	
5	Perylene-d12	1520-96-3		50-200	87	
6	Phenanthrene-d10	1517-22-2		50-200	91	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

3593

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-4	Received Date:	04/08/98
Sample ID:	ES-7S	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/17/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	22:37
Data File Name:	2332-04	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	5	J
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

3594

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

3595

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	84	
2	2-Fluorophenol	367-12-4		21- 99	58	
3	Nitrobenzene-d5	4165-60-0		35-113	88	
4	Phenol-d5	4165-62-2		10- 93	33	
5	Terphenyl-d14	1718-51-0		33-140	163	
6	2,4,6-Tribromophenol	118-79-6		10-122	99	
# of out-of-control					1	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	111	
2	Chrysene-d12	1719-03-5		50-200	75	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	104	
4	Naphthalene-d8	1146-65-2		50-200	121	
5	Perylene-d12	1520-96-3		50-200	98	
6	Phenanthrene-d10	1517-22-2		50-200	114	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

3596

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-14	Received Date:	04/08/98
Sample ID:	ES-7SRE	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/29/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	19:57
Data File Name:	2332-04	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	<10	U
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

3597

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	61	
2	2-Fluorophenol	367-12-4		21- 99	43	
3	Nitrobenzene-d5	4165-60-0		35-113	69	
4	Phenol-d5	4165-62-2		10- 93	32	
5	Terphenyl-d14	1718-51-0		33-140	92	
6	2,4,6-Tribromophenol	118-79-6		10-122	74	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	103	
2	Chrysene-d12	1719-03-5		50-200	54	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	81	
4	Naphthalene-d8	1146-65-2		50-200	100	
5	Perylene-d12	1520-96-3		50-200	84	
6	Phenanthrene-d10	1517-22-2		50-200	92	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

3599

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-5	Received Date:	04/08/98
Sample ID:	**Field Blank**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/30/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	11:14
Data File Name:	2332-05	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	<10	U
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

3600

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

3601

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	μg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	57	
2	2-Fluorophenol	367-12-4		21- 99	39	
3	Nitrobenzene-d5	4165-60-0		35-113	63	
4	Phenol-d5	4165-62-2		10- 93	29	
5	Terphenyl-d14	1718-51-0		33-140	87	
6	2,4,6-Tribromophenol	118-79-6		10-122	51	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	144	
2	Chrysene-d12	1719-03-5		50-200	84	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	139	
4	Naphthalene-d8	1146-65-2		50-200	145	
5	Perylene-d12	1520-96-3		50-200	108	
6	Phenanthrene-d10	1517-22-2		50-200	139	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-6	Received Date:	04/08/98
Sample ID:	ES-11D	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/17/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	23:50
Data File Name:	2332-06	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	<10	U
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	62	
2	2-Fluorophenol	367-12-4		21- 99	48	
3	Nitrobenzene-d5	4165-60-0		35-113	73	
4	Phenol-d5	4165-62-2		10- 93	35	
5	Terphenyl-d14	1718-51-0		33-140	130	
6	2,4,6-Tribromophenol	118-79-6		10-122	73	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	80	
2	Chrysene-d12	1719-03-5		50-200	57	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	70	
4	Naphthalene-d8	1146-65-2		50-200	86	
5	Perylene-d12	1520-96-3		50-200	78	
6	Phenanthrene-d10	1517-22-2		50-200	83	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-7	Received Date:	04/08/98
Sample ID:	ES-11S	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/21/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	05:34
Data File Name:	2332-07	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	5	J
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	76	
2	2-Fluorophenol	367-12-4		21- 99	53	
3	Nitrobenzene-d5	4165-60-0		35-113	83	
4	Phenol-d5	4165-62-2		10- 93	34	
5	Terphenyl-d14	1718-51-0		33-140	145	
6	2,4,6-Tribromophenol	118-79-6		10-122	83	
# of out-of-control					1	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	98	
2	Chrysene-d12	1719-03-5		50-200	64	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	91	
4	Naphthalene-d8	1146-65-2		50-200	108	
5	Perylene-d12	1520-96-3		50-200	84	
6	Phenanthrene-d10	1517-22-2		50-200	96	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-17	Received Date:	04/08/98
Sample ID:	**ES-11SRE**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/30/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	11:51
Data File Name:	2332-07	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	<10	U
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	μg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	57	
2	2-Fluorophenol	367-12-4		21- 99	43	
3	Nitrobenzene-d5	4165-60-0		35-113	71	
4	Phenol-d5	4165-62-2		10- 93	37	
5	Terphenyl-d14	1718-51-0		33-140	82	
6	2,4,6-Tribromophenol	118-79-6		10-122	71	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	125	
2	Chrysene-d12	1719-03-5		50-200	82	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	114	
4	Naphthalene-d8	1146-65-2		50-200	122	
5	Perylene-d12	1520-96-3		50-200	125	
6	Phenanthrene-d10	1517-22-2		50-200	127	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

3611

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-8	Received Date:	04/08/98
Sample ID:	ES-12S	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/30/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	12:28
Data File Name:	2332-08	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	<10	U
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	58	
2	2-Fluorophenol	367-12-4		21- 99	38	
3	Nitrobenzene-d5	4165-60-0		35-113	63	
4	Phenol-d5	4165-62-2		10- 93	30	
5	Terphenyl-d14	1718-51-0		33-140	88	
6	2,4,6-Tribromophenol	118-79-6		10-122	66	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	111	
2	Chrysene-d12	1719-03-5		50-200	55	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	105	
4	Naphthalene-d8	1146-65-2		50-200	114	
5	Perylene-d12	1520-96-3		50-200	73	
6	Phenanthrene-d10	1517-22-2		50-200	105	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

3614

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-9	Received Date:	04/08/98
Sample ID:	ES-13D	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/18/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	01:40
Data File Name:	2332-09	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	5	J
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

3615

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

3616

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	μg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	60	
2	2-Fluorophenol	367-12-4		21- 99	49	
3	Nitrobenzene-d5	4165-60-0		35-113	74	
4	Phenol-d5	4165-62-2		10- 93	34	
5	Terphenyl-d14	1718-51-0		33-140	119	
6	2,4,6-Tribromophenol	118-79-6		10-122	80	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	93	
2	Chrysene-d12	1719-03-5		50-200	80	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	78	
4	Naphthalene-d8	1146-65-2		50-200	95	
5	Perylene-d12	1520-96-3		50-200	105	
6	Phenanthrene-d10	1517-22-2		50-200	108	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

3617

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-10	Received Date:	04/08/98
Sample ID:	ES-13S	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/18/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	02:16
Data File Name:	2332-10	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	5	J
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

3618

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	μg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	μg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	μg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	μg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	μg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	μg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	μg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	μg/L	10	< 10	U
49	Diphenylamine	122-39-4	μg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	μg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	μg/L	10	< 10	U
52	Fluoranthene	206-44-0	μg/L	10	< 10	U
53	Fluorene	86-73-7	μg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	μg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	μg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	μg/L	10	< 10	U
57	Hexachloroethane	67-72-1	μg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	μg/L	10	< 10	U
59	Isophorone	78-59-1	μg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	μg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	μg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	μg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	μg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	μg/L	10	< 10	U
65	Naphthalene	91-20-3	μg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	μg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	μg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	μg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	μg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	μg/L	50	< 50	U
71	Nitrobenzene	98-95-3	μg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	μg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	μg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	μg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	μg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	μg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	μg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	μg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	μg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	μg/L	50	< 50	U
81	Phenacetin	62-44-2	μg/L	10	< 10	U
82	Phenanthrene	85-01-8	μg/L	10	< 10	U
83	Phenol	108-95-2	μg/L	10	< 10	U
84	2-Picoline	109-06-8	μg/L	20	< 20	U
85	Pronamide	23950-58-5	μg/L	10	< 10	U
86	Pyrene	129-00-0	μg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	μg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	μg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	μg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	μg/L	10	< 10	U

3619

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	60	
2	2-Fluorophenol	367-12-4		21- 99	43	
3	Nitrobenzene-d5	4165-60-0		35-113	68	
4	Phenol-d5	4165-62-2		10- 93	24	
5	Terphenyl-d14	1718-51-0		33-140	105	
6	2,4,6-Tribromophenol	118-79-6		10-122	85	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	109	
2	Chrysene-d12	1719-03-5		50-200	82	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	102	
4	Naphthalene-d8	1146-65-2		50-200	115	
5	Perylene-d12	1520-96-3		50-200	105	
6	Phenanthrene-d10	1517-22-2		50-200	118	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

362.0

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/08/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-11	Received Date:	04/08/98
Sample ID:	ES-14D	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/18/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	02:53
Data File Name:	2332-11	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	< 10	U
2	Acenaphthylene	208-96-8	µg/L	10	< 10	U
3	Acetophenone	98-86-2	µg/L	10	< 10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	< 10	U
5	Aniline	62-53-3	µg/L	10	< 10	U
6	Anthracene	120-12-7	µg/L	10	< 10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	< 10	U
8	Benzidine	92-87-5	µg/L	20	< 20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	< 10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	< 10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	< 10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	< 10	U
13	Benzoic acid	65-85-0	µg/L	50	< 50	U
14	Benzyl alcohol	100-51-6	µg/L	20	< 20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	< 10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	< 10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	< 10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	5	J
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	< 10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	< 10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	< 20	U
22	4-Chloroaniline	106-47-8	µg/L	20	< 20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	< 10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	< 10	U
25	2-Chlorophenol	95-57-8	µg/L	10	< 10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	< 10	U
27	Chrysene	218-01-9	µg/L	10	< 10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	< 10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	< 10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	< 10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	< 10	U
32	Dibenzofuran	132-64-9	µg/L	10	< 10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	< 10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	< 10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	< 10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	< 10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	< 10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	< 10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	< 10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	< 10	U

3621

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	μg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	μg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	μg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	μg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	μg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	μg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	μg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	μg/L	10	< 10	U
49	Diphenylamine	122-39-4	μg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	μg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	μg/L	10	< 10	U
52	Fluoranthene	206-44-0	μg/L	10	< 10	U
53	Fluorene	86-73-7	μg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	μg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	μg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	μg/L	10	< 10	U
57	Hexachloroethane	67-72-1	μg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	μg/L	10	< 10	U
59	Isophorone	78-59-1	μg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	μg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	μg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	μg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	μg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	μg/L	10	< 10	U
65	Naphthalene	91-20-3	μg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	μg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	μg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	μg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	μg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	μg/L	50	< 50	U
71	Nitrobenzene	98-95-3	μg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	μg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	μg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	μg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	μg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	μg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	μg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	μg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	μg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	μg/L	50	< 50	U
81	Phenacetin	62-44-2	μg/L	10	< 10	U
82	Phenanthrene	85-01-8	μg/L	10	< 10	U
83	Phenol	108-95-2	μg/L	10	< 10	U
84	2-Picoline	109-06-8	μg/L	20	< 20	U
85	Pronamide	23950-58-5	μg/L	10	< 10	U
86	Pyrene	129-00-0	μg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	μg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	μg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	μg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	μg/L	10	< 10	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	81	
2	2-Fluorophenol	367-12-4		21- 99	53	
3	Nitrobenzene-d5	4165-60-0		35-113	88	
4	Phenol-d5	4165-62-2		10- 93	30	
5	Terphenyl-d14	1718-51-0		33-140	160	
6	2,4,6-Tribromophenol	118-79-6		10-122	101	
# of out-of-control					1	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	150	
2	Chrysene-d12	1719-03-5		50-200	111	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	137	
4	Naphthalene-d8	1146-65-2		50-200	155	
5	Perylene-d12	1520-96-3		50-200	143	
6	Phenanthrene-d10	1517-22-2		50-200	162	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

3623

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/08/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-21	Received Date:	04/08/98
Sample ID:	ES-14DRE	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	04/30/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	13:05
Data File Name:	2332-11	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	<10	U
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	43-115	45
2	2-Fluorophenol	367-12-4	21- 99	31
3	Nitrobenzene-d5	4165-60-0	35-113	52
4	Phenol-d5	4165-62-2	10- 93	27
5	Terphenyl-d14	1718-51-0	33-140	58
6	2,4,6-Tribromophenol	118-79-6	10-122	60
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	106
2	Chrysene-d12	1719-03-5	50-200	61
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	91
4	Naphthalene-d8	1146-65-2	50-200	102
5	Perylene-d12	1520-96-3	50-200	99
6	Phenanthrene-d10	1517-22-2	50-200	102
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8270

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/08/98
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-12	Received Date:	04/08/98
Sample ID:	ES-14S	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: M
Anal. Method:	8270	Prep. Date:	04/14/98	Anal. Date:	05/04/98
Batch No:	98G1899	Prep. No:	1 of 1	Anal. Time:	14:26
Data File Name:	2332-12A	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Acenaphthene	83-32-9	µg/L	10	<10	U
2	Acenaphthylene	208-96-8	µg/L	10	<10	U
3	Acetophenone	98-86-2	µg/L	10	<10	U
4	4-Aminobiphenyl	92-67-1	µg/L	10	<10	U
5	Aniline	62-53-3	µg/L	10	<10	U
6	Anthracene	120-12-7	µg/L	10	<10	U
7	Benz(a)anthracene	56-55-3	µg/L	10	<10	U
8	Benzidine	92-87-5	µg/L	20	<20	U
9	Benzo(a)pyrene	50-32-8	µg/L	10	<10	U
10	Benzo(b)fluoranthene	205-99-2	µg/L	10	<10	U
11	Benzo(g,h,i)perylene	191-24-2	µg/L	10	<10	U
12	Benzo(k)fluoranthene	207-08-9	µg/L	10	<10	U
13	Benzoic acid	65-85-0	µg/L	50	<50	U
14	Benzyl alcohol	100-51-6	µg/L	20	<20	U
15	Bis(2-chloroethoxy) methane	111-91-1	µg/L	10	<10	U
16	Bis(2-chloroethyl) ether	111-44-4	µg/L	10	<10	U
17	Bis(2-chloroisopropyl) ether	108-60-1	µg/L	10	<10	U
18	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	10	<10	U
19	4-Bromophenyl phenyl ether	101-55-3	µg/L	10	<10	U
20	Butyl Benzyl Phthalate (BBP)	85-68-7	µg/L	10	<10	U
21	4-Chloro-3-methylphenol	59-50-7	µg/L	20	<20	U
22	4-Chloroaniline	106-47-8	µg/L	20	<20	U
23	1-Chloronaphthalene	90-13-1	µg/L	10	<10	U
24	2-Chloronaphthalene	91-58-7	µg/L	10	<10	U
25	2-Chlorophenol	95-57-8	µg/L	10	<10	U
26	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	10	<10	U
27	Chrysene	218-01-9	µg/L	10	<10	U
28	Di-n-butyl phthalate (DBP)	84-74-2	µg/L	10	<10	U
29	Di-n-octyl phthalate (DOP)	117-84-0	µg/L	10	<10	U
30	Dibenz(a,h)anthracene	53-70-3	µg/L	10	<10	U
31	Dibenz(a,j)acridine	224-42-0	µg/L	10	<10	U
32	Dibenzofuran	132-64-9	µg/L	10	<10	U
33	1,2-Dichlorobenzene	95-50-1	µg/L	10	<10	U
34	1,3-Dichlorobenzene	541-73-1	µg/L	10	<10	U
35	1,4-Dichlorobenzene	106-46-7	µg/L	10	<10	U
36	3,3'-Dichlorobenzidine	91-94-1	µg/L	10	<10	U
37	2,4-Dichlorophenol	120-83-2	µg/L	10	<10	U
38	2,6-Dichlorophenol	87-65-0	µg/L	10	<10	U
39	Diethyl phthalate (DEP)	84-66-2	µg/L	10	<10	U
40	Dimethyl phthalate (DMP)	131-11-3	µg/L	10	<10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	p-Dimethylaminoazobenzene	60-11-7	µg/L	10	< 10	U
42	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10	< 10	U
43	2,4-Dimethylphenol	105-67-9	µg/L	10	< 10	U
44	α, α-Dimethylphenylamine	122-09-8	µg/L	50	< 50	U
45	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	50	< 50	U
46	2,4-Dinitrophenol	51-28-5	µg/L	50	< 50	U
47	2,4-Dinitrotoluene	121-14-2	µg/L	10	< 10	U
48	2,6-Dinitrotoluene	606-20-2	µg/L	10	< 10	U
49	Diphenylamine	122-39-4	µg/L	10	< 10	U
50	1,2-Diphenylhydrazine	122-66-7	µg/L	10	< 10	U
51	Ethyl methanesulfonate	62-50-0	µg/L	10	< 10	U
52	Fluoranthene	206-44-0	µg/L	10	< 10	U
53	Fluorene	86-73-7	µg/L	10	< 10	U
54	Hexachlorobenzene	118-74-1	µg/L	10	< 10	U
55	Hexachlorobutadiene	87-68-3	µg/L	10	< 10	U
56	Hexachlorocyclopentadiene	77-47-4	µg/L	10	< 10	U
57	Hexachloroethane	67-72-1	µg/L	10	< 10	U
58	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10	< 10	U
59	Isophorone	78-59-1	µg/L	10	< 10	U
60	Methyl methanesulfonate	66-27-3	µg/L	10	< 10	U
61	3-Methylcholanthrene	56-49-5	µg/L	10	< 10	U
62	2-Methylnaphthalene	91-57-6	µg/L	10	< 10	U
63	3/4-Methylphenol (m/p-Cresol)	106-44-5	µg/L	10	< 10	U
64	2-Methylphenol (o-Cresol)	95-48-7	µg/L	10	< 10	U
65	Naphthalene	91-20-3	µg/L	10	< 10	U
66	1-Naphthylamine	134-32-7	µg/L	10	< 10	U
67	2-Naphthylamine	91-59-8	µg/L	10	< 10	U
68	2-Nitroaniline	88-74-4	µg/L	50	< 50	U
69	3-Nitroaniline	99-09-2	µg/L	50	< 50	U
70	4-Nitroaniline	100-01-6	µg/L	50	< 50	U
71	Nitrobenzene	98-95-3	µg/L	10	< 10	U
72	2-Nitrophenol	88-75-5	µg/L	10	< 10	U
73	4-Nitrophenol	100-02-7	µg/L	50	< 50	U
74	N-Nitroso-di-n-propylamine	621-64-7	µg/L	10	< 10	U
75	N-Nitroso-di-n-butylamine	924-16-3	µg/L	10	< 10	U
76	N-Nitrosodimethylamine	62-75-9	µg/L	10	< 10	U
77	N-Nitrosodiphenylamine	86-30-6	µg/L	10	< 10	U
78	N-Nitrosopiperidine	100-75-4	µg/L	10	< 10	U
79	Pentachlorobenzene	608-93-5	µg/L	50	< 50	U
80	Pentachlorophenol (PCP)	87-86-5	µg/L	50	< 50	U
81	Phenacetin	62-44-2	µg/L	10	< 10	U
82	Phenanthrene	85-01-8	µg/L	10	< 10	U
83	Phenol	108-95-2	µg/L	10	< 10	U
84	2-Picoline	109-06-8	µg/L	20	< 20	U
85	Pronamide	23950-58-5	µg/L	10	< 10	U
86	Pyrene	129-00-0	µg/L	10	< 10	U
87	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	10	< 10	U
88	2,3,4,6-Tetrachloroephenol	58-90-2	µg/L	10	< 10	U
89	1,2,4-Trichlorobenzene	120-82-1	µg/L	10	< 10	U
90	2,4,5-Trichlorophenol	95-95-4	µg/L	10	< 10	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
91	2,4,6-Trichlorophenol	88-06-2	µg/L	10	<10	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		43-115	72	
2	2-Fluorophenol	367-12-4		21- 99	48	
3	Nitrobenzene-d5	4165-60-0		35-113	73	
4	Phenol-d5	4165-62-2		10- 93	35	
5	Terphenyl-d14	1718-51-0		33-140	133	
6	2,4,6-Tribromophenol	118-79-6		10-122	76	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	120	
2	Chrysene-d12	1719-03-5		50-200	89	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	115	
4	Naphthalene-d8	1146-65-2		50-200	128	
5	Perylene-d12	1520-96-3		50-200	124	
6	Phenanthrene-d10	1517-22-2		50-200	117	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8270

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98G1899		

#	Client Sample No	Lab Sample ID	S1 %	#	S2 %	#	S3 %	#	S4 %	#	S5 %	#	S6 %	#	TOT OUT
1	98G1899-MB-01	98G1899-MB-01	54		70		62		61		97		60		0
2	98G1899-LCS-01	98G1899-LCS-01	48		61		60		61		59		60		0
3	98G1899-LSD-01	98G1899-LSD-01	52		63		61		61		64		63		0
4	DMW-5	98-2332-1	74		51		76		31		118		69		0
5	ES-7D	98-2332-3	96		78		108		51		181	*	105		1
6	ES-7S	98-2332-4	84		58		88		33		163	*	99		1
7	ES-11D	98-2332-6	62		48		73		35		130		73		0
8	ES-13D	98-2332-9	60		49		74		34		119		80		0
9	ES-13S	98-2332-10	60		43		68		24		105		85		0
10	ES-14D	98-2332-11	81		53		88		30		160	*	101		1
11	ES-11S	98-2332-7	76		53		83		34		145	*	83		1
12	ES-6D	98-2332-2	65		48		73		41		98		84		0
13	ES-7DRE	98-2332-23	67		45		76		47		102		77		0
14	ES-7SRE	98-2332-14	61		43		69		32		92		74		0
15	Field Blank	98-2332-5	57		39		63		29		87		51		0
16	ES-11SRE	98-2332-17	57		43		71		37		82		71		0
17	ES-12S	98-2332-8	58		38		63		30		88		66		0
18	ES-14DRE	98-2332-21	45		31		52		27		58		60		0
19	ES-14S	98-2332-12	72		48		73		35		133		76		0
20															
21															
22															
23															
24															
25															

	QC Control Limit
S1 = 2-Fluorobiphenyl	43-115
S2 = 2-Fluorophenol	21- 99
S3 = Nitrobenzene-d5	35-113
S4 = Phenol-d5	10- 93
S5 = Terphenyl-d14	33-140
S6 = 2,4,6-Tribromophenol	10-122

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

363C

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8270

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98G1899		
LCS Filename:	G1899L01	Date Analyzed:	041798	Time Analyzed:	19:34
LCSD Filename:	G1899J01	Date Analyzed:	041798	Time Analyzed:	20:10

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
Acenaphthene	µg/L	50	0	33.3	67	47-106
4-Chloro-3-methylphenol	µg/L	100	0	84.9	85	42-110
2-Chlorophenol	µg/L	100	0	82.2	82	45-104
1,4-Dichlorobenzene	µg/L	50	0	34.8	70	48-110
2,4-Dinitrotoluene	µg/L	50	0	38.5	77	40-122
4-Nitrophenol	µg/L	500	0	350	70	10-134
N-Nitroso-di-n-propylamine	µg/L	50	0	37.9	76	43-131
Pentachlorophenol (PCP)	µg/L	500	0	394	79	10-131
Phenol	µg/L	100	0	82.2	82	39-108
Pyrene	µg/L	50	0	35.4	71	37-108
1,2,4-Trichlorobenzene	µg/L	50	0	36.1	72	49-111
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
Acenaphthene	µg/L	50	36.7	73	9	30	47-106
4-Chloro-3-methylphenol	µg/L	100	85.4	85	0	34	42-110
2-Chlorophenol	µg/L	100	87.1	87	6	29	45-104
1,4-Dichlorobenzene	µg/L	50	35.5	71	1	30	48-110
2,4-Dinitrotoluene	µg/L	50	31.8	64	18	35	40-122
4-Nitrophenol	µg/L	500	381	76	8	46	10-134
N-Nitroso-di-n-propylamine	µg/L	50	36.4	73	4	43	43-131
Pentachlorophenol (PCP)	µg/L	500	428	86	8	41	10-131
Phenol	µg/L	100	83.2	83	1	35	39-108
Pyrene	µg/L	50	36.7	73	3	36	37-108
1,2,4-Trichlorobenzene	µg/L	50	37.3	75	4	30	49-111
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Method Blank Summary for Method 8270

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Analysis Date:	04/17/98
		Sample Matrix:	Water	Analysis Time:	18:54
Sample ID:	98G1899-MB-01	Batch No:	98G1899	Instrument ID:	GC/MS: M
Lab Sample ID:	98G1899-MB-01	Data File Name:	G1899K01	GC Column:	DB-5.625
				Column ID:	0.25 mm

This Method Blank applies to the following samples and QC samples:

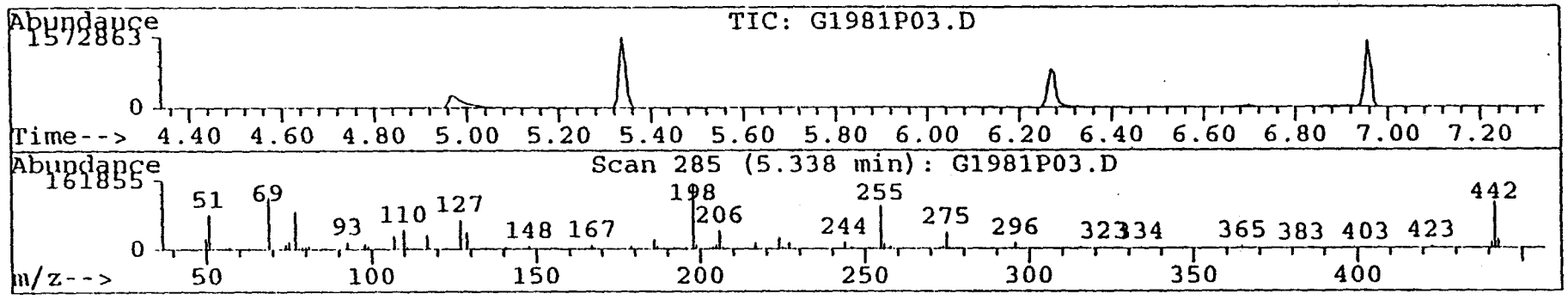
#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	98G1899-LCS-01	98G1899-LCS-01	Lab Control Spike	G1899L01	04/17/98	19:34
2	98G1899-LSD-01	98G1899-LSD-01	Lab Control Spike Duplicate	G1899J01	04/17/98	20:10
3	DMW-5	98-2332-1	Field Sample	2332-01	04/17/98	20:47
4	ES-7D	98-2332-3	Field Sample	2332-03	04/17/98	22:00
5	ES-7S	98-2332-4	Field Sample	2332-04	04/17/98	22:37
6	ES-11D	98-2332-6	Field Sample	2332-06	04/17/98	23:50
7	ES-13D	98-2332-9	Field Sample	2332-09	04/18/98	01:40
8	ES-13S	98-2332-10	Field Sample	2332-10	04/18/98	02:16
9	ES-14D	98-2332-11	Field Sample	2332-11	04/18/98	02:53
10	ES-11S	98-2332-7	Field Sample	2332-07	04/21/98	05:34
11	ES-6D	98-2332-2	Field Sample	2332-02	04/29/98	18:43
12	ES-7DRE	98-2332-23	Field Sample	2332-03	04/29/98	19:20
13	ES-7SRE	98-2332-14	Field Sample	2332-04	04/29/98	19:57
14	Field Blank	98-2332-5	Field Sample	2332-05	04/30/98	11:14
15	ES-11SRE	98-2332-17	Field Sample	2332-07	04/30/98	11:51
16	ES-12S	98-2332-8	Field Sample	2332-08	04/30/98	12:28
17	ES-14DRE	98-2332-21	Field Sample	2332-11	04/30/98	13:05
18	ES-14S	98-2332-12	Field Sample	2332-12A	05/04/98	14:26
19						
20						
21						
22						
23						
24						
25						

DFTPP

Data File : D:\HPCHEM\1\DATA\98G1981\G1981P03.D
Acq On : 24 Apr 98 6:27 pm
Sample : dftpp GC6707
Misc :

Vial: 99
Operator: cass
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270



Peak Apex is scan: 285

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	52.5	80936	PASS
68	69	0	2	0.0	0	PASS
69	198	1	100	79.6	122672	PASS
70	69	0	2	0.5	602	PASS
127	198	40	60	44.7	68976	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	154176	PASS
199	198	5	9	7.3	11253	PASS
275	198	10	30	25.6	39448	PASS
365	198	1	100	4.0	6222	PASS
441	443	1	99	76.5	16896	PASS
442	198	40	100	70.9	109312	PASS
443	442	17	23	20.2	22080	PASS

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G1981P03.D 8270M064.M Wed Apr 29 11:34:31 1998 5972

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : APPLIED P & CH LAB Contract: _____

Lab Code: _____ Case No.: ____ SAS No.: ____ SDG No.: 98-2332

File ID: G1981P03.D DFTPP Injection Date: 4/24/98

Instrument ID: GCMS-M DFTPP Injection Time: 1827

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	52.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	79.6
70	Less than 2.0% of mass 69	0.4 (0.5)1
127	40.0 - 60.0% of mass 198	44.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.3
275	10.0 - 30.0% of mass 198	25.6
365	Greater than 0.75% of mass 198	4.0
441	Present, but less than mass 443	11.0
442	40.0 - 100.0% of mass 198	70.9
443	17.0 - 23.0% of mass 442	14.3 (20.2)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD010	064-010A	064-010A.D	4/24/98	1851
02	SSTD020	064-020A	064-020A.D	4/24/98	1928
03	SSTD040	064-040A	064-040A.D	4/24/98	2005
04	SSTD060	064-060A	064-060A.D	4/24/98	2042
05	SSTD080	064-080A	064-080A.D	4/24/98	2119
06	SSTD100	064-100A	064-100A.D	4/24/98	2157
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Response Factor Report GC/MS - M

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 27 17:54:13 1998
Response via : Initial Calibration

Calibration Files
100 =064-100A.D 80 =064-080A.D 60 =064-060A.D
40 =064-040A.D 20 =064-020A.D 10 =064-010A.D

			Compound	100	80	60	40	20	10	Avg	%RSD
1)	I	1	I1: 14-DCB-d4	----------ISTD----------							
2)		2	...Pyridene	1.989	1.893	1.990	2.018	1.891	2.022	1.967	3.04
3)		3	N-NO-di-Me-amin	1.702	1.559	1.578	1.574	1.449	1.359	1.537	7.72
4)		4	2-Picoline	1.831	1.746	1.818	1.837	1.790	1.788	1.802	1.89
5)		5	Me-Methanesulfo	1.809	1.752	1.813	1.919	1.787	1.834	1.819	3.10
6)	S	6	S1: 2-F-phol 11	1.413	1.423	1.489	1.477	1.359	1.443	1.434	3.28
7)		7	Et-ME-sulfonate	1.844	1.800	1.821	1.974	1.919	2.020	1.896	4.70
8)		9	Aniline 93,66	1.822	1.880	2.090	2.197	2.380	2.506	2.146	12.60
9)	C, M	10	Phenol M	1.549	1.631	1.836	1.943	2.060	2.242	1.877	13.92
10)	S	11	S2: phenol-d6	1.368	1.478	1.595	1.784	1.866	2.026	1.686	14.77
11)		12	Bis(2-Cl-Et)eth	1.354	1.373	1.457	1.575	1.627	1.799	1.531	11.12
12)	S		2-Chlorophenol-d4	0.872	0.965	1.076	1.124	1.215	1.328	1.097	15.08
13)	M	13	2-Cl-phol M	0.937	0.999	1.111	1.150	1.185	1.332	1.119	12.53
14)		14	13-DCB	1.098	1.125	1.211	1.252	1.308	1.514	1.252	12.03
15)			1-METHYL-2-PYRROLID	1.037	0.888	1.008	1.077	1.078	1.112	1.033	7.75
16)	C, M	15	14-DCB M	1.098	1.125	1.211	1.252	1.308	1.514	1.252	12.03
17)	S		1,2-Dichlorobenzene	0.973	1.022	1.114	1.152	1.306	1.497	1.178	16.54
18)		16	12-DCB 14	0.817	0.837	0.961	1.021	1.169	1.375	1.030	20.63
19)		17	Bzl alcohol T10	0.824	0.819	0.868	0.918	1.008	1.107	0.924	12.31
20)		18	b(2-Cl-i-Pr)eth	0.322	0.325	0.349	0.378	0.414	0.419	0.368	11.63
21)	P, M	19	N-NO-di-n-Pr-am	1.512	1.503	1.567	1.665	1.698	1.840	1.631	7.94
22)		20	o-cresol T11	1.027	1.193	1.280	1.371	1.379	1.435	1.281	11.77
23)		21	Hx-Cl-ethane	0.763	0.783	0.807	0.838	0.881	0.937	0.835	7.80
24)		22	m/p-cresol T11	0.514	0.597	0.640	0.685	0.689	0.718	0.640	11.77
25)	I	23	I2: Naphthalene-d	----------ISTD----------							

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(#) = Out of Range

Response Factor Report GC/MS - M

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 27 17:54:13 1998
Response via : Initial Calibration

Calibration Files
100 =064-100A.D 80 =064-080A.D 60 =064-060A.D
40 =064-040A.D 20 =064-020A.D 10 =064-010A.D

		Compound	100	80	60	40	20	10	Avg	%RSD
26)		24 Acetophenone 10	0.731	0.752	0.803	0.845	0.821	0.889	0.807	7.26
27)	S	25 S3: nitro-Bz-d5	0.929	0.913	0.944	0.976	0.904	0.960	0.938	2.93
28)		26 Nitrobenzene	0.936	0.934	0.974	1.005	0.954	1.015	0.970	3.56
29)		27 N-NO-piperidine	0.790	0.761	0.759	0.786	0.736	0.774	0.768	2.61
30)		28 Isophorone	1.512	1.452	1.508	1.556	1.494	1.633	1.526	4.08
31)	C	29 2-Nitrophenol	0.215	0.214	0.229	0.234	0.225	0.244	0.227	5.04
32)		30 24-diMe-phol T1	0.328	0.324	0.350	0.348	0.364	0.393	0.351	7.23
33)		31 bis(2-Cl-ethoxy	0.196	0.195	0.209	0.214	0.208	0.246	0.211	8.83
34)		32 Benzoic acid 1	0.231	0.225	0.218	0.207	0.154	0.111	0.191	25.14
35)	C	33 24-diCl-phol T1	0.300	0.302	0.323	0.340	0.325	0.346	0.323	5.86
36)	M	34 124-Tri-Cl-Bz	0.356	0.349	0.379	0.398	0.395	0.441	0.386	8.56
37)		35 aa-Di-Me-Ph-ami	1.426	1.553	1.641	1.738	1.254	1.038	1.442	18.06
38)		36 Naphthalene	0.824	0.855	0.961	0.998	1.126	1.290	1.009	17.32
39)		37 26-diCl-phol 16	0.300	0.302	0.323	0.340	0.325	0.346	0.323	5.86
40)		39 4-Chloroaniline	0.333	0.289	0.314	0.338	0.387	0.446	0.351	16.13
41)	C	40 Hx-Cl-butadiene	0.380	0.365	0.378	0.380	0.365	0.368	0.373	1.95
42)		HYDROQUINONE	0.135	0.128	0.134	0.105	0.111	0.131	0.124	10.28
43)		41 N-NO-di-n-Bu-am	0.488	0.483	0.507	0.526	0.537	0.539	0.513	4.76
44)	C, M	42 4Cl-3Me-phol M	0.529	0.525	0.548	0.561	0.548	0.526	0.539	2.78
45)		43 2-Me-naphthalen	0.543	0.554	0.610	0.638	0.677	0.761	0.631	12.93
46)	I	44 I3: Acenaphth-d10	----------ISTD----------							
47)	P	45 Hex-Cl-Cyc-Ptdi	0.598	0.572	0.568	0.621	0.552	0.476	0.565	8.79
48)		46 1245-tetra-Cl-B	0.754	0.702	0.695	0.742	0.742	0.817	0.742	5.91
49)	C	47 246-TrClphol S4	0.404	0.409	0.393	0.443	0.442	0.423	0.419	4.88
50)		48 245-TrClphol S4	0.433	0.450	0.402	0.460	0.376	0.187	0.385	26.42
51)	S	49 S4: 2-F-bipheny	1.151	1.192	1.255	1.344	1.517	1.646	1.351	14.40

(#) = Out of Range

Response Factor Report GC/MS - M

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 27 17:54:13 1998
Response via : Initial Calibration

Calibration Files
100 =064-100A.D 80 =064-080A.D 60 =064-060A.D
40 =064-040A.D 20 =064-020A.D 10 =064-010A.D

			Compound	100	80	60	40	20	10	Avg	%RSD
52)			1-Chloronaphthalene	1.223	1.183	1.294	1.241	1.443	1.378	1.294	7.69
53)		50	2-Cl-naphthalen	0.653	0.777	0.904	0.936	1.068	1.378	0.868	18.27
54)		51	2-Nitroaniline	0.328	0.340	0.362	0.372	0.434	0.478	0.386	15.17
55)		53	Di-Me-phthalate	1.362	1.386	1.543	1.641	1.715	1.787	1.572	11.05
56)		54	Acenaphthylene	1.414	1.588	1.695	1.923	2.123	1.787	1.749	15.95
57)		55	26-Dinitrotolue	0.303	0.353	0.383	0.419	0.434	1.787	0.379	13.85
58)		56	3-Nitroaniline	0.226	0.246	0.274	0.283	0.316	0.308	0.276	12.67
59)	C, M	57	Acenaphthene M	0.756	0.735	0.810	0.872	1.170	1.256	0.933	23.93
60)	P	58	24Dinitrophol	0.237	0.202	0.211	0.239	0.224	0.141	0.209	17.37
61)		59	Dibenzofuran	1.497	1.503	1.616	1.703	1.947	2.062	1.721	13.66
62)		60	Pt-Cl-benzene	0.733	0.695	0.730	0.773	0.807	0.835	0.762	6.90
63)		61	1-Naphthylamine	0.638	0.652	0.688	0.815	0.904	0.835	0.739	15.62
64)	M	62	24-Dinitrotolue	0.410	0.457	0.538	0.585	0.591	0.835	0.516	15.49
65)		63	2-Naphthylamine	0.562	0.562	0.594	0.690	0.788	0.766	0.660	15.43
66)		64	2346-Te-Cl-phen	0.383	0.401	0.409	0.422	0.374	0.101	0.348	35.20
67)		65	Diethylphthalat	1.383	1.404	1.510	1.778	1.906	1.949	1.655	15.35
68)		66	Fluorene	0.982	1.053	1.152	1.242	1.395	1.502	1.221	16.37
69)		67	4-Cl-Ph-Ph-ethe	0.622	0.626	0.660	0.706	0.780	0.810	0.700	11.38
70)	P, M	68	4-nitro-phol M	0.646	0.626	0.632	0.613	0.591	0.084	0.532	41.38#
71)		69	4-Nitroaniline	0.370	0.196	0.223	0.264	0.363	0.375	0.299	27.02
72)	S	70	S5: 246-TriBrPh	0.385	0.359	0.376	0.390	0.356	0.318	0.364	7.20
73)	I	71	I4: Phenanth-d10	----------ISTD----------							
74)	C	72	N-NO-di-Ph-amin	0.212	0.173	0.189	0.172	0.207	0.318	0.191	9.68
75)		73	Diphenylamine	2.787	2.428	2.560	2.353	2.856	0.318	2.597	8.45
76)		74	46Dinitro-2-cre	0.186	0.147	0.144	0.149	0.151	0.157	0.156	9.84
77)		75	12-Di-Ph-hydraz	1.925	2.013	2.191	1.537	1.720	0.157	1.877	13.57

3637

(#) = Out of Range

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 27 17:54:13 1998
Response via : Initial Calibration

Calibration Files
100 =064-100A.D 80 =064-080A.D 60 =064-060A.D
40 =064-040A.D 20 =064-020A.D 10 =064-010A.D

			Compound	100	80	60	40	20	10	Avg	%RSD
78)		76	4-Br-Ph-Ph-ethe	0.225	0.234	0.228	0.234	0.225	0.253	0.233	4.62
79)		77	Phenacetin	0.585	0.592	0.588	0.665	0.576	0.620	0.604	5.50
80)		79	Hx-Cl-benzene	0.334	0.334	0.297	0.315	0.307	0.326	0.319	4.80
81)		80	4-Aminobiphenyl	2.787	2.428	2.560	2.353	2.856	0.326	2.597	8.45
82)	C, M	81	Pt-Cl-phenol M	0.225	0.196	0.183	0.112	0.127	0.326	0.169	28.21
83)		84	Pt-Cl-nitro-Bz	0.265	0.260	0.243	0.256	0.229	0.237	0.248	5.77
84)			Pronamide	0.059	0.059	0.058	0.059	0.061	0.061	0.059	2.03
85)		85	Phenanthren I4+	0.779	0.783	0.756	0.800	0.896	1.047	0.844	13.14
86)		86	Anthracene I4+	0.828	0.840	0.820	0.882	0.994	1.142	0.918	13.89
87)			Carbazole	0.716	0.791	0.675	0.729	0.691	0.817	0.736	7.61
88)		89	Di-n-Bt-phthala	1.130	1.125	1.101	1.188	1.329	1.529	1.234	13.50
89)	C	92	Fluoranthene	1.169	1.080	1.024	1.109	1.159	1.289	1.138	7.97
90)			P-dimethylamino azo	0.239	0.232	0.215	0.234	0.243	0.270	0.239	7.52
91)	I	94	I5: Chrysene-d12	----------ISTD----------							
92)		95	Benzidine 184 9	0.214	0.237	0.284	0.296	0.233	0.291	0.259	13.60
93)	M	96	Pyrene	0.592	0.620	0.819	0.778	1.050	1.187	0.841	28.11
94)	S	97	S6: Terphenyl-d	0.543	0.655	0.640	0.775	0.838	1.187	0.690	16.92
95)		104	Bu-Bz-phthalate	0.330	0.431	0.416	0.575	0.653	1.187	0.481	27.05
96)		108	33'-DiCl-benzid	0.381	0.440	0.529	0.515	0.464	0.442	0.462	11.78
97)		109	Bz[a]anthra I5-	1.030	1.163	1.317	1.266	0.994	1.042	1.135	11.86
98)		110	Chrysene I5+.	0.626	0.740	0.688	0.832	0.932	1.042	0.764	15.81
99)		111	b(2-EtHx)phthal	0.512	0.569	0.555	0.666	0.761	1.042	0.613	16.36
100)	I	112	I6: Perylene-D12	----------ISTD----------							
101)	C	113	Di-n-Ot-phthala	1.050	1.062	1.132	1.109	1.273	1.419	1.174	12.26
102)		114	712-DMebz[a]ant	0.400	0.391	0.393	0.384	0.385	0.419	0.395	3.29

3633

(#) = Out of Range

Response Factor Report GC/MS - M

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 27 17:54:13 1998
Response via : Initial Calibration

Calibration Files
100 =064-100A.D 80 =064-080A.D 60 =064-060A.D
40 =064-040A.D 20 =064-020A.D 10 =064-010A.D

		Compound	100	80	60	40	20	10	Avg	%RSD
103)		115 Bz(b)fluo I6-2	1.333	1.193	1.106	1.088	0.960	1.003	1.114	12.13
104)	I	116 bz(k)fluor I6-	0.672	0.752	0.711	0.902	0.994	1.003	0.806	16.92
105)	C	117 Benzo[a]pyrene	0.900	0.868	0.873	0.851	0.879	0.919	0.882	2.76
106)		118 3-Me-cholanthre	0.440	0.430	0.442	0.425	0.421	0.442	0.433	2.12
107)		119 dibenz(a,j)acri	0.734	0.745	0.765	0.742	0.742	0.757	0.747	1.51
108)		120 Ind(123cd)pyren	0.967	0.962	0.991	0.955	0.951	0.994	0.970	1.88
109)		121 Dibz[ah]anthrac	0.844	0.846	0.852	0.807	0.795	0.836	0.830	2.78
110)		122 Bz[ghi]perylene	0.779	0.795	0.838	0.818	0.831	0.863	0.821	3.68

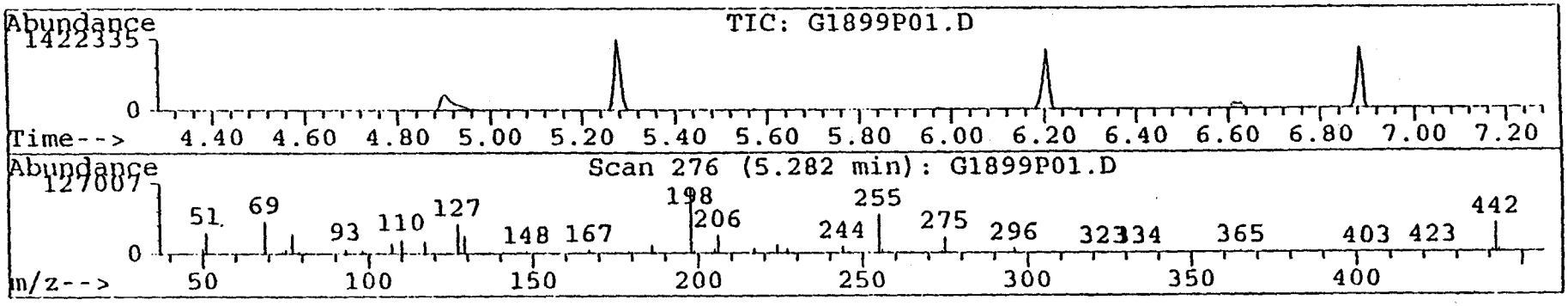
3639

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\98G1899\G1899P01.D
Acq On : 17 Apr 98 12:03 pm
Sample : ###98G1899,W dftpp GC6707
Misc :

Vial: 99
Operator: cass
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270



Peak Apex is scan: 276

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.9	39768	PASS
68	69	0	2	0.0	0	PASS
69	198	1	100	48.5	58656	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	44.7	54016	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	120976	PASS
199	198	5	9	6.5	7875	PASS
275	198	10	30	24.3	29400	PASS
365	198	1	100	3.4	4134	PASS
441	443	1	99	80.6	8026	PASS
442	198	40	100	43.8	52992	PASS
443	442	17	23	18.8	9955	PASS

364C

G1899P01.D 8270M063.M Tue Apr 28 19:37:29 1998 5972

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : APPLIED P & CH LAB Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 98-2332

Lab File ID: G1899P01.D DFTPP Injection Date: 4/17/98

Instrument ID: GCMS-M DFTPP Injection Time: 1203

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	32.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	48.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	44.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.5
275	10.0 - 30.0% of mass 198	24.3
365	Greater than 0.75% of mass 198	3.4
441	Present, but less than mass 443	6.6
442	40.0 - 100.0% of mass 198	43.8
443	17.0 - 23.0% of mass 442	8.2 (18.8)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD010	063-010	063-010.D	4/17/98	1219
02	SSTD020	063-020	063-020.D	4/17/98	1343
03	SSTD040	063-040	063-040.D	4/17/98	1449
04	SSTD060	063-060	063-060.D	4/17/98	1527
05	SSTD080	063-080	063-080.D	4/17/98	1652
06	SSTD100	063-100	063-100.D	4/17/98	1301
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Response F[illegible]or Report GC/MS - M

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 20 13:14:22 1998
Response via : Initial Calibration

Calibration Files

100	=063-100.D	80	=063-080.D	60	=063-060.D
40	=063-040.D	20	=063-020.D	10	=063-010.D

			Compound	100	80	60	40	20	10	Avg	%RSD
1)	I	1	I1: 14-DCB-d4	----------ISTD----------							
2)		2	...Pyridene	0.718	0.763	0.667	0.657	0.698	0.469	0.662	15.39
3)		3	N-NO-di-Me-amin	2.093	2.179	1.942	1.967	1.986	1.698	1.978	8.27
4)		4	2-Picoline	0.888	0.892	0.794	0.829	0.936	0.660	0.833	11.85
5)		5	Me-Methanesulfo	1.510	1.541	1.385	1.425	1.519	1.289	1.445	6.72
6)	S	6	S1: 2-F-phol 11	1.033	1.018	0.893	0.949	0.935	0.849	0.946	7.49
7)		7	Et-ME-sulfonate	0.836	0.852	0.713	0.761	0.827	0.711	0.783	8.10
8)		9	Aniline 93,66	1.329	1.357	1.172	1.215	1.278	1.101	1.242	7.88
9)	C, M	10	Phenol M	1.168	1.184	1.028	1.054	1.114	0.893	1.073	10.03
10)	S	11	S2: phenol-d6	1.081	1.043	0.911	0.945	0.995	0.864	0.973	8.40
11)		12	Bis(2-Cl-Et)eth	1.013	1.010	0.831	0.848	0.887	0.800	0.898	10.28
12)	S		2-Chlorophenol-d4	1.304	1.299	1.060	1.059	1.142	1.000	1.144	11.37
13)	M	13	2-Cl-phol M	1.094	1.110	0.934	0.941	1.001	0.919	1.000	8.40
14)		14	13-DCB	1.423	1.407	1.224	1.232	1.339	1.190	1.302	7.74
15)			1-METHYL-2-PYRROLID	0.612	0.623	0.536	0.553	0.562	0.419	0.551	13.26
16)	C, M	15	14-DCB M	1.535	1.507	1.321	1.367	1.383	1.201	1.386	8.89
17)	S		1,2-Dichlorobenzene	1.435	1.429	1.250	1.266	1.360	1.106	1.308	9.63
18)		16	12-DCB 14	1.552	1.521	1.309	1.287	1.372	1.097	1.356	12.34
19)		17	Bzl alcohol T10	0.758	0.749	0.638	0.652	0.720	0.698	0.702	7.02
20)		18	b(2-Cl-i-Pr)eth	0.387	0.391	0.343	0.359	0.372	0.464	0.386	10.93
21)	P, M	19	N-NO-di-n-Pr-am	0.915	0.955	0.920	0.925	1.040	0.827	0.930	7.42
22)		20	o-cresol T11	0.963	0.904	0.797	0.832	0.930	0.671	0.849	12.58
23)		21	Hx-Cl-ethane	1.100	1.049	0.925	0.947	0.976	0.863	0.977	8.80
24)		22	m/p-cresol T11	0.481	0.452	0.399	0.416	0.465	0.336	0.425	12.58
25)	I	23	I2: Naphthalene-d	----------ISTD----------							

3642

(#) = Out of Range

Response Factor Report GC/MS - M

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 20 13:14:22 1998
Response via : Initial Calibration

Calibration Files
100 =063-100.D 80 =063-080.D 60 =063-060.D
40 =063-040.D 20 =063-020.D 10 =063-010.D

			Compound	100	80	60	40	20	10	Avg	%RSD
26)		24	Acetophenone 10	0.647	0.644	0.599	0.605	0.636	0.555	0.614	5.72
27)	S	25	S3: nitro-Bz-d5	0.635	0.645	0.608	0.592	0.626	0.555	0.610	5.42
28)		26	Nitrobenzene	0.580	0.583	0.553	0.553	0.594	0.494	0.559	6.44
29)		27	N-NO-piperidine	0.662	0.672	0.630	0.630	0.678	0.585	0.643	5.45
30)		28	Isophorone	0.849	0.852	0.812	0.809	0.881	0.757	0.827	5.27
31)	C	29	2-Nitrophenol	0.212	0.216	0.197	0.197	0.199	0.153	0.196	11.50
32)		30	24-diMe-phol T1	0.293	0.297	0.270	0.274	0.298	0.254	0.281	6.41
33)		31	bis(2-Cl-ethoxy	0.114	0.114	0.105	0.113	0.123	0.107	0.113	5.78
34)		32	Benzoic acid 1	0.286	0.282	0.240	0.200	0.173	0.102	0.214	33.04
35)	C	33	24-diCl-phol T1	0.347	0.354	0.316	0.307	0.327	0.260	0.318	10.65
36)	M	34	124-Tri-Cl-Bz	0.428	0.418	0.379	0.381	0.400	0.347	0.392	7.58
37)		35	aa-Di-Me-Ph-ami	0.737	0.732	0.724	0.797	0.725	0.345	0.676	24.36
38)		36	Naphthalene	1.071	1.042	0.937	0.921	1.011	0.918	0.983	6.78
39)		37	26-diCl-phol 16	0.347	0.354	0.316	0.307	0.327	0.260	0.318	10.65
40)		39	4-Chloroaniline	0.723	0.677	0.502	0.429	0.416	0.366	0.519	28.43
41)	C	40	Hx-Cl-butadiene	0.488	0.502	0.440	0.442	0.458	0.410	0.457	7.38
42)			HYDROQUINONE	0.063	0.070	0.068	0.081	0.076	0.020	0.063	34.69
43)		41	N-NO-di-n-Bu-am	0.308	0.297	0.282	0.286	0.302	0.263	0.290	5.62
44)	C, M	42	4Cl-3Me-phol M	0.468	0.473	0.432	0.436	0.453	0.362	0.437	9.27
45)		43	2-Me-naphthalen	0.734	0.721	0.638	0.632	0.670	0.585	0.663	8.55
46)	I	44	I3: Acenaphth-d10	----------ISTD----------							
47)	P	45	Hex-Cl-Cyc-Ptdi	0.727	0.710	0.644	0.648	0.615	0.473	0.636	14.25
48)		46	1245-tetra-Cl-B	1.013	0.994	0.856	0.809	0.811	0.708	0.865	13.63
49)	C	47	246-TrClphol S4	0.458	0.451	0.409	0.396	0.417	0.341	0.412	10.31
50)		48	245-TrClphol S4	0.497	0.485	0.429	0.422	0.431	0.331	0.433	13.60
51)	S	49	S4: 2-F-bipheny	1.301	1.281	1.125	1.124	1.211	1.063	1.184	8.06

(#) = Out of Range

Response F[illegible]or Report GC/MS - M

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 20 13:14:22 1998
Response via : Initial Calibration

Calibration Files
100 =063-100.D 80 =063-080.D 60 =063-060.D
40 =063-040.D 20 =063-020.D 10 =063-010.D

			Compound	100	80	60	40	20	10	Avg	%RSD
52)			1-Chloronaphthalene	1.355	1.341	1.132	1.123	1.225	1.082	1.210	9.66
53)		50	2-Cl-naphthalen	0.676	0.746	0.731	0.734	0.788	0.756	0.739	5.00
54)		51	2-Nitroaniline	0.363	0.352	0.319	0.313	0.339	0.294	0.330	7.85
55)		53	Di-Me-phthalate	1.576	1.571	1.449	1.493	1.550	1.398	1.506	4.81
56)		54	Acenaphthylene	1.636	1.546	1.318	1.289	1.413	1.291	1.416	10.32
57)		55	26-Dinitrotolue	0.395	0.362	0.312	0.299	0.317	0.278	0.327	13.22
58)		56	3-Nitroaniline	0.309	0.298	0.275	0.263	0.285	0.252	0.280	7.55
59)	C, M	57	Acenaphthene M	1.316	1.266	1.109	1.001	0.972	0.934	1.100	14.55
60)	P	58	24Dinitrophol	0.328	0.331	0.238	0.216	0.192	0.097	0.234	37.80
61)		59	Dibenzofuran	1.798	1.748	1.527	1.512	1.580	1.470	1.606	8.43
62)		60	Pt-Cl-benzene	0.856	0.884	0.709	0.699	0.729	0.668	0.757	11.83
63)		61	1-Naphthylamine	1.034	0.915	0.787	0.767	0.780	0.681	0.827	15.24
64)	M	62	24-Dinitrotolue	0.640	0.554	0.454	0.436	0.483	0.419	0.498	16.91
65)		63	2-Naphthylamine	0.974	0.915	0.840	0.788	0.777	0.641	0.823	14.19
66)		64	2346-Te-Cl-phen	0.481	0.472	0.403	0.404	0.388	0.280	0.405	17.87
67)		65	Diethylphthalat	2.513	2.296	1.830	1.798	1.958	1.845	2.040	14.48
68)		66	Fluorene	1.554	1.392	1.063	0.997	1.057	1.001	1.177	20.07
69)		67	4-Cl-Ph-Ph-ethe	0.773	0.742	0.663	0.650	0.662	0.607	0.683	9.11
70)	P, M	68	4-nitro-phol M	0.646	0.597	0.544	0.450	0.450	0.464	0.525	15.96
71)		69	4-Nitroaniline	0.916	0.265	0.300	0.265	0.271	0.229	0.374	71.12
72)	S	70	S5: 246-TriBrPh	0.405	0.408	0.372	0.358	0.376	0.325	0.374	8.28
73)	I	71	I4: Phenanth-d10	----------ISTD----------							
74)	C	72	N-NO-di-Ph-amin	0.317	0.314	0.314	0.274	0.238	0.187	0.274	19.28
75)		73	Diphenylamine	7.305	6.721	5.025	4.052	3.497	2.746	4.891	37.08
76)		74	46Dinitro-2-cre	0.290	0.257	0.201	0.180	0.169	0.115	0.202	31.24
77)		75	12-Di-Ph-hydraz	1.226	1.773	1.453	0.956	0.897	0.852	1.193	30.56

3644

(#) = Out of Range

Response Factor Report GC/MS - M

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 20 13:14:22 1998
Response via : Initial Calibration

Calibration Files
100 =063-100.D 80 =063-080.D 60 =063-060.D
40 =063-040.D 20 =063-020.D 10 =063-010.D

			Compound	100	80	60	40	20	10	Avg	%RSD
78)		76	4-Br-Ph-Ph-ethe	0.292	0.289	0.267	0.253	0.273	0.229	0.267	8.84
79)		77	Phenacetin	0.602	0.612	0.581	0.562	0.556	0.460	0.562	9.71
80)		79	Hx-Cl-benzene	0.369	0.362	0.346	0.338	0.345	0.311	0.345	5.96
81)		80	4-Aminobiphenyl	7.316	6.721	5.025	4.052	3.497	2.746	4.893	37.12
82)	C, M	81	Pt-Cl-phenol M	0.291	0.256	0.235	0.209	0.144	2.746	0.227	24.40
83)		84	Pt-Cl-nitro-Bz	0.296	0.301	0.280	0.284	0.283	0.241	0.281	7.49
84)			Pronamide	0.078	0.078	0.071	0.068	0.074	0.061	0.072	9.41
85)		85	Phenanthren I4+	1.138	1.044	0.935	0.875	0.907	0.799	0.950	12.84
86)		86	Anthracene I4+	1.263	1.196	1.028	0.992	0.996	0.875	1.058	13.60
87)			Carbazole	1.692	1.509	1.223	1.040	0.915	0.691	1.178	31.78
88)		89	Di-n-Bt-phthala	1.921	1.816	1.578	1.496	1.565	1.390	1.628	12.36
89)	C	92	Fluoranthene	1.493	1.384	1.213	1.126	1.131	0.989	1.223	15.14
90)			P-dimethylamino azo	0.322	0.308	0.272	0.267	0.261	0.232	0.277	11.77
91)	I	94	I5: Chrysene-d12	----------ISTD----------							
92)		95	Benzidine 184 9	0.411	0.348	0.325	0.361	0.403	0.294	0.357	12.60
93)	M	96	Pyrene	0.847	0.773	0.701	0.748	0.915	0.842	0.804	9.69
94)	S	97	S6: Terphenyl-d	0.666	0.614	0.581	0.627	0.741	0.673	0.650	8.62
95)		104	Bu-Bz-phthalate	0.530	0.478	0.454	0.495	0.625	0.570	0.525	12.08
96)		108	33'-DiCl-benzid	0.386	0.398	0.415	0.467	0.530	0.390	0.431	13.25
97)		109	Bz[a]anthra I5-	1.141	1.157	1.202	1.338	1.412	1.058	1.218	10.86
98)		110	Chrysene I5+.	0.906	0.881	0.817	0.860	1.028	0.889	0.897	7.94
99)		111	b(2-EtHx)phthal	1.107	0.886	0.872	0.944	0.827	0.889	0.927	11.73
100)	I	112	I6: Perylene-D12	----------ISTD----------							
101)	C	113	Di-n-Ot-phthala	1.774	1.772	1.490	1.401	1.453	1.258	1.525	13.63
102)		114	712-DMebz[a]ant	0.478	0.473	0.419	0.410	0.432	0.359	0.428	10.27

(#) = Out of Range

Response Factor Report GC/MS - M

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 20 13:14:22 1998
Response via : Initial Calibration

Calibration Files
100 =063-100.D 80 =063-080.D 60 =063-060.D
40 =063-040.D 20 =063-020.D 10 =063-010.D

		Compound	100	80	60	40	20	10	Avg	%RSD
103)		115 Bz(b)fluo I6-2	1.474	1.327	1.079	1.044	0.988	0.847	1.127	20.51
104)	I	116 bz(k)fluor I6-	0.779	0.848	0.798	0.765	0.879	0.737	0.801	6.61
105)	C	117 Benzo[a]pyrene	0.879	0.882	0.787	0.763	0.786	0.697	0.799	8.90
106)		118 3-Me-cholanthre	0.455	0.438	0.405	0.406	0.429	0.365	0.416	7.61
107)		119 dibenz(a,j)acri	0.740	0.741	0.691	0.697	0.737	0.658	0.711	4.80
108)		120 Ind(123cd)pyren	0.952	0.937	0.872	0.884	0.925	0.811	0.897	5.83
109)		121 Dibz[ah]anthrac	0.793	0.777	0.716	0.702	0.732	0.629	0.725	8.07
110)		122 Bz[ghi]perylene	0.723	0.715	0.700	0.717	0.773	0.671	0.717	4.65

364E

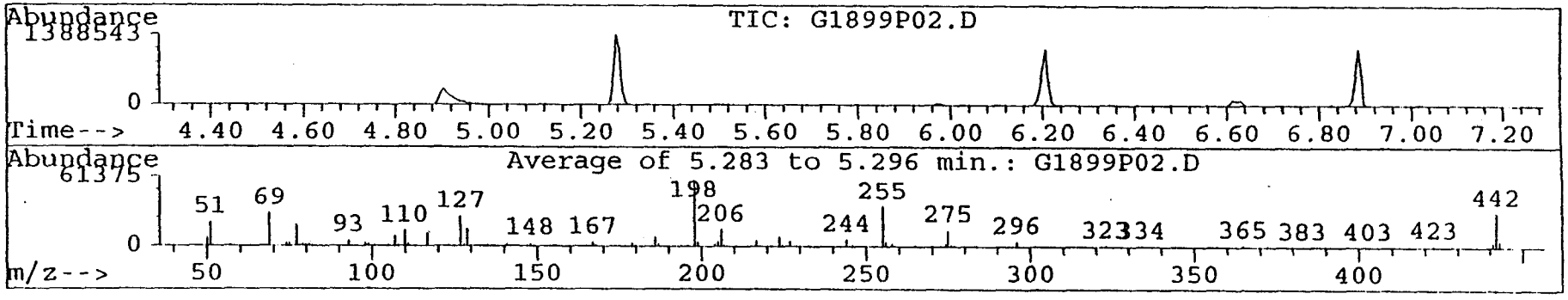
(#) = Out of Range

DFTPP

Data File : D:\HPCHEM\1\DATA\98G1899\G1899P02.D
Acq On : 17 Apr 98 6:01 pm
Sample : #98G1899,W dftpp GC6707
Misc :

Vial: 99
Operator: cass
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270



Peak Apex is scan: 277

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.4	20686	PASS
68	69	0	2	0.0	0	PASS
69	198	1	100	48.8	28535	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	44.4	25974	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	58464	PASS
199	198	5	9	6.8	3970	PASS
275	198	10	30	25.3	14816	PASS
365	198	1	100	3.3	1926	PASS
441	443	1	99	80.5	4515	PASS
442	198	40	100	52.0	30390	PASS
443	442	17	23	18.4	5606	PASS

G1899P02.D 8270M063.M Fri May 22 15:45:05 1998 5972

Applied P & Ch Laboratory

Semivolatile Organic Instrument Performance Check for Method 8270

Decafluorotriphenylphosphine (DFTPP), Part II

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	DFTPP Inj. Date:	04/17/98	Batch No:	98G1899
		DFTPP Inj. Time:	10:20	Sequence No:	98G1899
Project No:	98HW001	Instrument ID:	M	GC Column:	DB-5.625
Data File Name:	G1899P02			Column ID:	0.25 mm

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

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	98G1899-CCV-01	98G1899-CCV-01	G1899Q02	04/17/98	18:17
2	98G1899-MB-01	98G1899-MB-01	G1899K01	04/17/98	18:54
3	98G1899-LCS-01	98G1899-LCS-01	G1899L01	04/17/98	19:34
4	98G1899-LSD-01	98G1899-LSD-01	G1899J01	04/17/98	20:10
5	DMW-5	98-2332-1	2332-01	04/17/98	20:47
6	ES-7D	98-2332-3	2332-03	04/17/98	22:00
7	ES-7S	98-2332-4	2332-04	04/17/98	22:37
8	ES-11D	98-2332-6	2332-06	04/17/98	23:50
9	ES-11S	98-2332-7	2332-07	04/18/98	00:27
10	ES-13D	98-2332-9	2332-09	04/18/98	01:40
11	ES-13S	98-2332-10	2332-10	04/18/98	02:16
12	ES-14D	98-2332-11	2332-11	04/18/98	02:53
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3648

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G1899\G1899Q02.D Vial: 100
Acq On : 17 Apr 98 6:17 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 20 13:14:22 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1 I1: 14-DCB-d4	152	1.000	1.000	0.0	93	0.00
2		2 ...Pyridene	79	0.662	0.715	-8.1	100	0.00
3		3 N-NO-di-Me-amine	74	1.978	2.163	-9.4	103	0.00
4		4 2-Picoline	93	0.833	0.769	7.7	90	0.00
5		5 Me-Methanesulfonate	80	1.445	1.221	15.5	82	-0.01
6	S	6 S1: 2-F-phol 112	64	0.946	0.871	8.0	90	0.00
7		7 Et-ME-sulfonate	79	0.783	0.661	15.7	86	-0.01
8		9 Aniline 93,66		1.242	1.014	18.4	80	-0.01
9	C, M	10 Phenol M	94	1.073	0.906	15.6	82	0.00
10	S	11 S2: phenol-d6	99	0.973	0.774	20.4#	79	-0.01
11		12 Bis(2-Cl-Et)ether	63	0.898	0.703	21.8#	78	-0.01
12	S	2-Chlorophenol-d4		1.144	0.910	20.5#	80	0.00
13	M	13 2-Cl-phol M	12	1.000	0.795	20.5#	79	0.00
14		14 13-DCB	1	1.302	1.193	8.4	90	0.00
15		1-METHYL-2-PYRROLIDINONE		0.551	0.464	15.8	80	-0.09
16	C, M	15 14-DCB M	146	1.386	1.281	7.6	90	0.00
17	S	1,2-Dichlorobenzene-d4		1.308	1.151	12.0	85	0.00
18		16 12-DCB	146 148	1.356	1.194	12.0	85	0.00
19		17 Bzl alcohol T10.9	108	0.702	0.573	18.5	83	-0.01
20		18 b(2-Cl-i-Pr)ether	121	0.386	0.298	22.8#	81	0.00
21	P, M	19 N-NO-di-n-Pr-amineM	130	0.930	0.838	9.9	85	0.00
22		20 o-cresol T11.5	107	0.849	0.705	17.0	82	-0.01
23		21 Hx-Cl-ethane	117	0.977	0.861	11.8	86	0.00
24		22 m/p-cresol T11.9	107	0.425	0.352	17.0	82	-0.01
25	I	23 I2:-Naphthalene-d8	136	1.000	1.000	0.0	90	0.00

(#) = Out of Range

364

Evaluate Contin( ) Calibration Report

Data File : D:\HPCHEM\1\DATA\98G1899\G1899Q02.D Vial: 100
Acq On : 17 Apr 98 6:17 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 20 13:14:22 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
26		24 Acetophenone 105 77	0.614	0.550	10.5	82	0.00
27	S	25 S3: nitro-Bz-d5 82	0.610	0.545	10.8	80	0.00
28		26 Nitrobenzene 77	0.559	0.504	10.0	82	0.00
29		27 N-NO-piperidine 114	0.643	0.607	5.6	86	0.00
30		28 Isophorone 82	0.827	0.777	6.0	86	-0.01
31	C	29 2-Nitrophenol 139	0.196	0.174	10.9	79	0.00
32		30 24-diMe-phol T13.2 107	0.281	0.256	8.9	85	0.00
33		31 bis(2-Cl-ethoxy)Me 95	0.113	0.104	7.8	89	0.00
34		32 Benzoic acid 122 105	0.214	0.017	91.8#	7#	0.10
35	C	33 24-diCl-phol T13.6 162	0.318	0.294	7.7	83	0.00
36	M	34 124-Tri-Cl-Bz M 180 1	0.392	0.333	15.2	79	0.00
37		35 aa-Di-Me-Ph-amine 58	0.676	0.443	34.5#	55	-0.14
38		36 Naphthalene 128	0.983	0.826	16.0	79	0.00
39		37 26-diCl-phol 162 164	0.318	0.294	7.7	83	0.00
40		39 4-Chloroaniline 127	0.519	0.438	15.5	78	0.00
41	C	40 Hx-Cl-butadiene 225	0.457	0.395	13.5	80	0.00
42		HYDROQUINONE	0.063	0.051	19.5	67	-0.01
43		41 N-NO-di-n-Bu-amine 84	0.290	0.276	4.9	88	0.00
44	C, M	42 4Cl-3Me-phol M 107 7	0.437	0.404	7.6	84	0.00
45		43 2-Me-naphthalene 115	0.663	0.607	8.5	85	0.00
46	I	44 I3: Acenaphth-d10 164	1.000	1.000	0.0	95	0.00
47	P	45 Hex-Cl-Cyc-Ptdiene 237	0.636	0.536	15.8	79	0.00
48		46 1245-tetra-Cl-Bz 216 21	0.865	0.731	15.5	81	0.00
49	C	47 246-TrClphol S4-.2 196	0.412	0.357	13.3	83	0.00

(#) = Out of Range

365

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G1899\G1899Q02.D Vial: 100
Acq On : 17 Apr 98 6:17 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 20 13:14:22 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
50		48 245-TrClphol S4-.1	196	0.433	0.382	11.8	84	0.00
51	S	49 S4: 2-F-biphenyl	172	1.184	0.991	16.4	84	0.00
52		1-Chloronaphthalene		1.210	1.056	12.7	89	0.00
53		50 2-Cl-naphthalene	162	0.739	0.588	20.4#	76	0.00
54		51 2-Nitroaniline	138	0.330	0.281	14.9	84	-0.01
55		53 Di-Me-phthalate	163	1.506	1.298	13.8	85	-0.01
56		54 Acenaphthylene	152	1.416	1.169	17.4	84	0.00
57		55 26-Dinitrotoluene	165	0.327	0.274	16.4	83	0.00
58		56 3-Nitroaniline	138	0.280	0.247	11.8	85	0.00
59	C, M	57 Acenaphthene M 154	153	1.100	0.984	10.5	84	0.00
60	P	58 24Dinitrophol	184	0.234	0.211	9.9	84	-0.02
61		59 Dibenzofuran	168	1.606	1.396	13.1	87	0.00
62		60 Pt-Cl-benzene	250	0.757	0.634	16.2	85	0.00
63		61 1-Naphthylamine	143	0.827	0.657	20.6#	79	0.00
64	M	62 24-DinitrotolueneM	165	0.498	0.404	18.8	85	-0.02
65		63 2-Naphthylamine	143	0.823	0.688	16.4	78	-0.02
66		64 2346-Te-Cl-phenol	232	0.405	0.365	9.8	86	0.00
67		65 Diethylphthalate	149	2.040	1.649	19.2	86	-0.01
68		66 Fluorene	166	1.177	0.923	21.6#	83	0.00
69		67 4-Cl-Ph-Ph-ether	204	0.683	0.590	13.6	85	0.00
70	P M	68 4-nitro-phol M	65	0.525	0.418	20.5#	73	-0.02
71		69 4-Nitroaniline	138	0.374	0.249	33.4#	79	-0.02
72	S	70 S5: 246-TriBrPhenol	330	0.374	0.320	14.3	82	0.00
73	I	71 I4: Phenanth-d10 188 18		1.000	1.000	0.0	98	0.00

(#) = Out of Range

G1899Q02.D 8270M063.M Tue Apr 21 11:24:02 1998 5972

365

Evaluate Contin[illegible] Calibration Report

Data File : D:\HPCHEM\1\DATA\98G1899\G1899Q02.D Vial: 100
Acq On : 17 Apr 98 6:17 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 20 13:14:22 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
74	C	72 N-NO-di-Ph-amine	167	0.274	0.282	-3.0	88	-0.01
75		73 Diphenylamine	169	4.891	4.204	14.0	82	-0.01
76		74 46Dinitro-2-cresol	198	0.202	0.169	16.4	83	0.00
77		75 12-Di-Ph-hydrazine	77	1.193	1.526	-27.9#	103	-0.01
78		76 4-Br-Ph-Ph-ether	248	0.267	0.231	13.4	85	0.00
79		77 Phenacetin	108	0.562	0.510	9.3	86	-0.01
80		79 Hx-Cl-benzene	284	0.345	0.307	11.0	87	0.00
81		80 4-Aminobiphenyl	169	4.893	4.204	14.1	82	-0.01
82	C, M	81 Pt-Cl-phenol M	266	0.227	0.223	1.6	85	0.00
83		84 Pt-Cl-nitro-Bz	237	0.281	0.251	10.6	88	0.00
84		Pronamide		0.072	0.063	11.9	87	0.00
85		85 Phenanthren I4+.05	178	0.950	0.799	15.9	84	0.00
86		86 Anthracene I4+.13	178	1.058	0.887	16.2	85	0.00
87		Carbazole		1.178	1.005	14.7	81	0.00
88		89 Di-n-Bt-phthalate	149	1.628	1.364	16.2	85	0.00
89	C	92 Fluoranthene	202	1.223	1.055	13.7	85	0.00
90		P-dimethylamino azobenzene		0.277	0.233	15.9	84	0.00
91	I	94 I5: Chrysene-d12	240	1.000	1.000	0.0	92	0.00
92		95 Benzidine 184 92 185		0.357	0.202	43.4#	57	0.00
93	M	96 Pyrene M	20	0.804	0.623	22.5#	82	0.00
94	S	97 S6: Terphenyl-d14	244	0.650	0.526	19.2	84	0.00
95		104 Bu-Bz-phthalate	149	0.525	0.414	21.2#	84	0.00
96		108 33'-DiCl-benzidine	252	0.431	0.380	11.8	85	0.00
97		109 Bz[a]anthra I5-.06	228	1.218	1.105	9.3	85	0.00

(#) = Out of Range

365

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G1899\G1899Q02.D Vial: 100
Acq On : 17 Apr 98 6:17 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M063.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 20 13:14:22 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
98		110 Chrysene I5+.10	228	0.897	0.738	17.7	83	0.00
99		111 b(2-EtHx)phthalate	149	0.927	0.778	16.1	81	0.00
100	I	112 I6: Perylene-D12	264	1.000	1.000	0.0	92	0.00
101	C	113 Di-n-Ot-phthalate	149	1.525	1.343	11.9	83	0.00
102		114 712-DMebz[a]anthra	256	0.428	0.381	11.2	83	0.00
103		115 Bz(b)fluo I6-2.7	253 2	1.127	0.948	15.8	81	0.00
104	I	116 bz(k)fluor I6-2.5	253	0.801	0.732	8.6	84	0.00
105	C	117 Benzo[a]pyrene	252	0.799	0.714	10.6	83	-0.01
106		118 3-Me-cholanthrene	268	0.416	0.360	13.5	82	0.00
107		119 dibenz(a,j)acridine		0.711	0.622	12.5	83	0.00
108		120 Ind(123cd)pyrene	276	0.897	0.771	14.0	81	-0.02
109		121 Dibz[ah]anthracene	278	0.725	0.629	13.1	81	-0.01
110		122 Bz[ghi]perylene	276	0.717	0.607	15.2	80	-0.01

3653

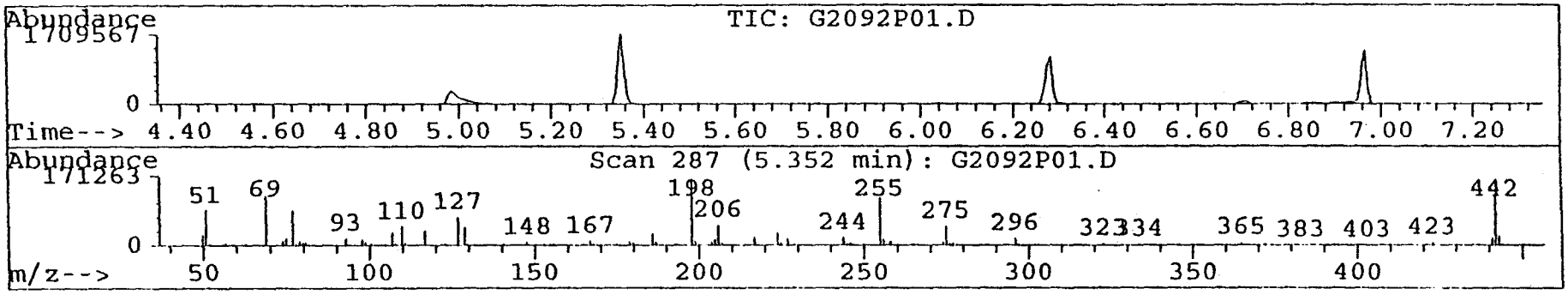
(#) = Out of Range SPCC's out = 0 CCC's out = 0

TPP

Data File : D:\HPCHEM\1\DATA\98G2092\G2092P01.D
Acq On : 29 Apr 98 11:57 am
Sample : ##98G2092,s dftpp GC6707
Misc :

Vial: 99
Operator: cass
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DFTPP625.M
Title :



Peak Apex is scan: 287

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	52.1	85056	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	74.7	121832	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	42.4	69112	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	163136	PASS
199	198	5	9	7.2	11706	PASS
275	198	10	30	28.8	46912	PASS
365	198	1	100	4.5	7269	PASS
441	443	1	100	80.8	19560	PASS
442	198	40	100	78.3	127760	PASS
443	442	17	23	18.9	24208	PASS

G2092P01.D DFTPP625.M Wed Apr 29 12:13:43 1998 5972

Applied P & Ch Laboratory

Semivolatile Organic Instrument Performance Check for Method 8270

Decafluorotriphenylphosphine (DFTPP), Part II

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	DFTPP Inj. Date:	04/29/98	Batch No:	98G1899
		DFTPP Inj. Time:	11:57	Sequence No:	98G2092
Project No:	98HW001	Instrument ID:	M	GC Column:	DB-5.625
Data File Name:	G2092P01			Column ID:	0.25 mm

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

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	98G1899-CCV-02	98G1899-CCV-02	G2092Q01	04/29/98	12:26
2	ES-6D	98-2332-2	2332-02	04/29/98	18:43
3	ES-7DRE	98-2332-3RE	2332-03	04/29/98	19:20
4	ES-7SRE	98-2332-4RE	2332-04	04/29/98	19:57
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Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q01.D Vial: 100
Acq On : 29 Apr 98 12:26 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 27 17:54:13 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1 I1: 14-DCB-d4	152	1.000	1.000	0.0	153#	0.01
2		2 ...Pyridene	79	1.967	1.993	-1.3	153#	0.00
3		3 N-NO-di-Me-amine	74	1.537	1.701	-10.7	165#	0.01
4		4 2-Picoline	93	1.802	1.797	0.3	151#	0.01
5		5 Me-Methanesulfonate	80	1.819	1.770	2.7	149	0.02
6	S	6 S1: 2-F-phol 112	64	1.434	1.513	-5.5	155#	0.02
7		7 Et-ME-sulfonate	79	1.896	1.815	4.3	152#	0.02
8		9 Aniline 93,66		2.146	1.950	9.1	142	0.02
9	C, M	10 Phenol M	94	1.877	1.750	6.8	145	0.03
10	S	11 S2: phenol-d6	99	1.686	1.504	10.8	144	0.02
11		12 Bis(2-Cl-Et)ether	63	1.531	1.417	7.4	148	0.02
12	S	2-Chlorophenol-d4		1.097	1.011	7.8	143	0.02
13	M	13 2-Cl-phol M	12	1.119	1.044	6.7	143	0.02
14		14 13-DCB	1	1.252	1.153	7.9	145	0.01
15		1-METHYL-2-PYRROLIDINONE		1.033	1.029	0.4	156#	0.16
16	C, M	15 14-DCB M	146	1.252	1.153	7.9	145	0.01
17	S	1,2-Dichlorobenzene-d4		1.178	1.052	10.6	144	0.01
18		16 12-DCB	146 148	1.030	0.881	14.4	140	0.01
19		17 Bzl alcohol T10.9	108	0.924	0.849	8.1	149	0.02
20		18 b(2-Cl-i-Pr)ether	121	0.368	0.333	9.4	146	0.02
21	P, M	19 N-NO-di-n-Pr-amine M	130	1.631	1.506	7.7	147	0.03
22		20 o-cresol T11.5	107	1.281	1.177	8.1	140	0.04
23		21 Hx-Cl-ethane	117	0.835	0.790	5.3	149	0.01
24		22 m/p-cresol T11.9	107	0.640	0.588	8.1	140	0.04
25	I	23 I2: Naphthalene-d8	136	1.000	1.000	0.0	148	0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q01.D Vial: 100
Acq On : 29 Apr 98 12:26 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 27 17:54:13 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
26		24 Acetophenone 105 77	0.807	0.777	3.7	143	0.01
27	S	25 S3: nitro-Bz-d5 82	0.938	0.940	-0.2	147	0.02
28		26 Nitrobenzene 77	0.970	0.950	2.1	144	0.02
29		27 N-NO-piperidine 114	0.768	0.804	-4.7	157#	0.03
30		28 Isophorone 82	1.526	1.494	2.1	146	0.03
31	C	29 2-Nitrophenol 139	0.227	0.222	2.0	143	0.01
32		30 24-diMe-phol T13.2 107	0.351	0.340	3.1	144	0.03
33		31 bis(2-Cl-ethoxy)Me 95	0.211	0.204	3.6	144	0.02
34		32 Benzoic acid 122 105	0.191	0.244	-27.7#	166#	0.08
35	C	33 24-diCl-phol T13.6 162	0.323	0.316	2.2	144	0.02
36	M	34 124-Tri-Cl-Bz M 180 1	0.386	0.358	7.3	140	0.01
37		35 aa-Di-Me-Ph-amine 58	1.442	1.672	-16.0	151#	0.58#
38		36 Naphthalene 128	1.009	0.912	9.6	140	0.01
39		37 26-diCl-phol 162 164	0.323	0.316	2.2	144	0.02
40		39 4-Chloroaniline 127	0.351	0.298	15.0	141	0.03
41	C	40 Hx-Cl-butadiene 225	0.373	0.363	2.6	142	0.01
42		HYDROQUINONE	0.124	0.073	41.5#	80	0.06
43		41 N-NO-di-n-Bu-amine 84	0.513	0.501	2.4	146	0.02
44	C, M	42 4Cl-3Me-phol M 107 7	0.539	0.548	-1.6	148	0.03
45		43 2-Me-naphthalene 115	0.631	0.572	9.3	139	0.02
46	I	44 I3: Acenaphth-d10 164	1.000	1.000	0.0	141	0.01
47	P	45 Hex-Cl-Cyc-Ptdiene 237	0.565	0.583	-3.3	145	0.01
48		46 1245-tetra-Cl-Bz 216 21	0.742	0.738	0.6	150	0.01
49	C	47 246-TrClphol S4-.2 196	0.419	0.337	19.6	121	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q01.D Vial: 100
Acq On : 29 Apr 98 12:26 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 27 17:54:13 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50		48 245-TrClphol S4-.1 196	0.385	0.373	3.1	131	0.02
51	S	49 S4: 2-F-biphenyl 172	1.351	1.229	9.0	138	0.01
52		1-Chloronaphthalene	1.294	1.266	2.1	138	0.01
53		50 2-Cl-naphthalene 162	0.868	0.694	20.0#	126	0.01
54		51 2-Nitroaniline 138	0.386	0.363	5.8	141	0.04
55		53 Di-Me-phthalate 163	1.572	1.650	-4.9	151#	0.00
56		54 Acenaphthylene 152	1.749	1.468	16.0	130	0.01
57		55 26-Dinitrotoluene 165	0.379	0.351	7.2	140	0.01
58		56 3-Nitroaniline 138	0.276	0.274	0.4	141	0.04
59	C, M	57 Acenaphthene M 154 153	0.933	0.759	18.7	132	0.00
60	P	58 24Dinitrophol 184	0.209	0.246	-17.5	164#	0.03
61		59 Dibenzofuran 168	1.721	1.567	9.0	137	0.01
62		60 Pt-Cl-benzene 250	0.762	0.724	5.0	140	0.02
63		61 1-Naphthylamine 143	0.739	0.656	11.3	142	0.03
64	M	62 24-DinitrotolueneM 165	0.516	0.466	9.7	144	0.04
65		63 2-Naphthylamine 143	0.660	0.650	1.5	154#	0.04
66		64 2346-Te-Cl-phenol 232	0.348	0.401	-15.2	138	0.02
67		65 Diethylphthalate 149	1.655	1.640	0.9	153#	0.04
68		66 Fluorene 166	1.221	1.105	9.5	135	0.02
69		67 4-Cl-Ph-Ph-ether 204	0.700	0.663	5.4	142	0.01
70	P, M	68 4-nitro-phol M 65	0.532	0.711	-33.7#	158#	0.04
71		69 4-Nitroaniline 138	0.299	0.248	16.9	156#	0.07
72	S	70 S5: 246-TriBrPhenol 330	0.364	0.382	-5.0	144	0.03
73	I	71 I4: Phenanth-d10 188 18	1.000	1.000	0.0	147	0.02

3653

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q01.D Vial: 100
Acq On : 29 Apr 98 12:26 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 27 17:54:13 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
74	C	72 N-NO-di-Ph-amine	167	0.191	0.226	-18.8	192#	0.04
75		73 Diphenylamine	169	2.597	3.185	-22.6#	192#	0.04
76		74 46Dinitro-2-cresol	198	0.156	0.148	5.2	150#	0.00
77		75 12-Di-Ph-hydrazine	77	1.877	2.794	-48.8#	204#	0.00
78		76 4-Br-Ph-Ph-ether	248	0.233	0.222	4.9	143	0.01
79		77 Phenacetin	108	0.604	0.601	0.5	150	0.05
80		79 Hx-Cl-benzene	284	0.319	0.316	0.8	156#	0.02
81		80 4-Aminobiphenyl	169	2.597	3.185	-22.6#	192#	0.04
82	C, M	81 Pt-Cl-phenol M	266	0.169	0.206	-22.4	154#	0.03
83		84 Pt-Cl-nitro-Bz	237	0.248	0.270	-8.8	163#	0.04
84		Pronamide		0.059	0.057	4.4	143	0.02
85		85 Phenanthren I4+.05	178	0.844	0.751	10.9	146	0.01
86		86 Anthracene I4+.13	178	0.918	0.838	8.7	150	0.01
87		Carbazole		0.736	0.899	-22.1#	195#	0.02
88		89 Di-n-Bt-phthalate	149	1.234	1.150	6.8	153#	0.00
89	C	92 Fluoranthene	202	1.138	1.076	5.5	154#	0.00
90		P-dimethylamino azobenzene		0.239	0.221	7.6	151#	0.00
91	I	94 I5: Chrysene-d12	240	1.000	1.000	0.0	232#	0.00
92		95 Benzidine 184 92 185		0.259	0.200	22.8#	163#	0.00
93	M	96 Pyrene M 20		0.841	0.536	36.2#	152#	0.00
94	S	97 S6: Terphenyl-d14	244	0.690	0.486	29.6#	172#	0.00
95		104 Bu-Bz-phthalate	149	0.481	0.272	43.5#	146	0.00
96		108 33'-DiCl-benzidine	252	0.462	0.403	12.9	176#	0.00
97		109 Bz[a]anthra I5-.06	228	1.135	1.080	4.9	190#	0.00

(#) = Out of Range

365

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q01.D Vial: 100
Acq On : 29 Apr 98 12:26 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon Apr 27 17:54:13 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
98		110 Chrysene I5+.10	228	0.764	0.511	33.1#	160#	0.00
99		111 b(2-EtHx)phthalate	149	0.613	0.645	-5.2	263#	0.00
100	I	112 I6: Perylene-D12	264	1.000	1.000	0.0	153#	-0.03
101	C	113 Di-n-Ot-phthalate	149	1.174	1.104	6.0	150	-0.03
102		114 712-DMebz[a]anthra	256	0.395	0.406	-2.6	158#	-0.01
103		115 Bz(b)fluo I6-2.7	253 2	1.114	1.161	-4.3	161#	-0.01
104	I	116 bz(k)fluor I6-2.5	253	0.806	0.748	7.2	153#	-0.01
105	C	117 Benzo[a]pyrene	252	0.882	0.840	4.7	148	-0.01
106		118 3-Me-cholanthrene	268	0.433	0.432	0.4	150	-0.04
107		119 dibenz(a,j)acridine		0.747	0.734	1.8	147	-0.06
108		120 Ind(123cd)pyrene	276	0.970	0.919	5.3	142	-0.06
109		121 Dibz[ah]anthracene	278	0.830	0.830	-0.1	150	-0.07
110		122 Bz[ghi]perylene	276	0.821	0.741	9.7	136	-0.09

3660

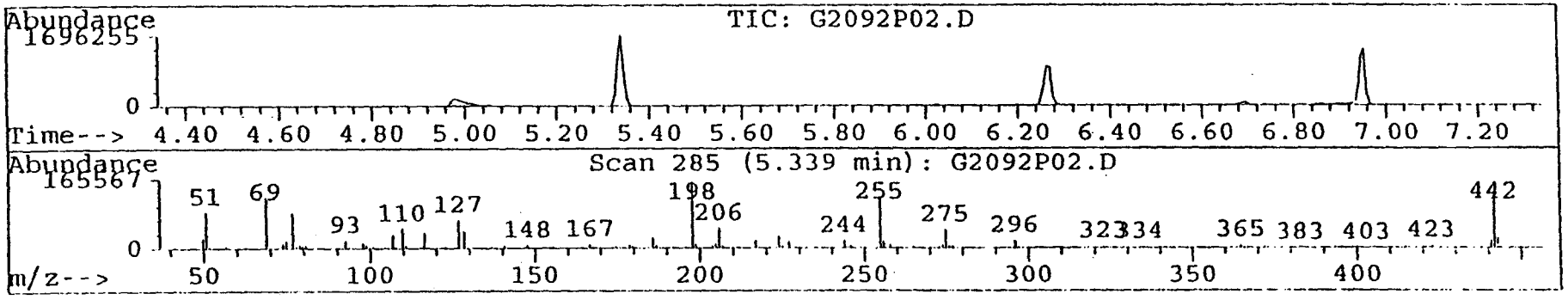
(#) = Out of Range SPCC's out = 0 CCC's out = 0

DFTPP

Data File : D:\HPCHEM\1\DATA\98G2092\G2092P02.D
Acq On : 30 Apr 98 10:20 am
Sample : dftpp GC6707
Misc :

Vial: 99
Operator: cass
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270



Peak Apex is scan: 285

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	54.8	86384	PASS
68	69	0	2	0.0	0	PASS
69	198	1	100	76.5	120688	PASS
70	69	0	2	0.6	701	PASS
127	198	40	60	42.4	66864	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	157696	PASS
199	198	5	9	7.1	11212	PASS
275	198	10	30	28.4	44760	PASS
365	198	1	100	4.5	7131	PASS
441	443	1	99	86.4	21048	PASS
442	198	40	100	83.1	131016	PASS
443	442	17	23	18.6	24368	PASS

3661

G2092P02.D 8270M064.M Thu Apr 30 10:35:04 `8 5972

Applied P & Ch Laboratory

Semivolatile Organic Instrument Performance Check for Method 8270

Decafluorotriphenylphosphine (DFTPP), Part II

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	DFTPP Inj. Date:	04/30/98	Batch No:	98G1899
		DFTPP Inj. Time:	10:20	Sequence No:	98G2092
Project No:	98HW001	Instrument ID:	M	GC Column:	DB-5.625
Data File Name:	G2092P02			Column ID:	0.25 mm

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

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	98G1899-CCV-03	98G1899-CCV-03	G2092Q02	04/30/98	10:37
2	Field Blank	98-2332-5	2332-05	04/30/98	11:14
3	ES-11SRE	98-2332-7RE	2332-07	04/30/98	11:51
4	ES-12S	98-2332-8	2332-08	04/30/98	12:28
5	ES-14DRE	98-2332-11RE	2332-11	04/30/98	13:05
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

3662

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q02.D
Acq On : 30 Apr 98 10:37 am
Sample : 60ppm
Misc :

Vial: 100
Operator: cass
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon May 04 13:32:32 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1 I1: 14-DCB-d4	152	1.000	1.000	0.0	123	0.00
2		2 ...Pyridene	79	1.967	1.746	11.2	108	0.00
3		3 N-NO-di-Me-amine	74	1.537	1.570	-2.2	123	0.00
4		4 2-Picoline	93	1.802	1.723	4.4	117	0.00
5		5 Me-Methanesulfonate	80	1.819	1.772	2.6	121	0.00
6	S	6 S1: 2-F-phol 112	64	1.434	1.399	2.4	116	0.01
7		7 Et-ME-sulfonate	79	1.896	1.830	3.5	124	0.00
8		9 Aniline 93,66		2.146	2.007	6.5	118	0.00
9	C, M	10 Phenol M	94	1.877	1.845	1.7	124	0.00
10	S	11 S2: phenol-d6	99	1.686	1.577	6.5	122	0.00
11		12 Bis(2-Cl-Et)ether	63	1.531	1.489	2.7	126	0.00
12	S	2-Chlorophenol-d4		1.097	1.044	4.8	120	0.00
13	M	13 2-Cl-phol M	12	1.119	1.065	4.9	118	0.00
14		14 13-DCB	1	1.252	1.116	10.9	114	0.00
15		1-METHYL-2-PYRROLIDINONE		1.033	1.022	1.1	125	0.03
16	C, M	15 14-DCB M	146	1.252	1.116	10.9	114	0.00
17	S	1,2-Dichlorobenzene-d4		1.178	1.043	11.5	115	0.00
18		16 12-DCB	146 148	1.030	0.889	13.6	114	0.00
19		17 Bzl alcohol T10.9	108	0.924	0.926	-0.3	132	0.00
20		18 b(2-Cl-i-Pr)ether	121	0.368	0.354	3.8	125	0.01
21	P, M	19 N-NO-di-n-Pr-amineM	130	1.631	1.660	-1.8	131	0.01
22		20 o-cresol T11.5	107	1.281	1.271	0.8	122	0.01
23		21 Hx-Cl-ethane	117	0.835	0.755	9.6	115	0.00
24		22 m/p-cresol T11.9	107	0.640	0.635	0.8	122	0.01
25	I	23 I2: Naphthalene-d8	136	1.000	1.000	0.0	137	0.00

(#) = Out of Range

3663

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q02.D Vial: 100
Acq On : 30 Apr 98 10:37 am Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon May 04 13:32:32 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
26		24 Acetophenone 105 77	0.807	0.727	9.9	124	0.00
27	S	25 S3: nitro-Bz-d5 82	0.938	0.876	6.6	127	0.00
28		26 Nitrobenzene 77	0.970	0.877	9.5	123	0.00
29		27 N-NO-piperidine 114	0.768	0.772	-0.6	139	0.00
30		28 Isophorone 82	1.526	1.419	7.0	129	0.00
31	C	29 2-Nitrophenol 139	0.227	0.205	9.7	122	0.00
32		30 24-diMe-phol T13.2 107	0.351	0.325	7.3	127	0.00
33		31 bis(2-Cl-ethoxy)Me 95	0.211	0.196	7.2	128	0.00
34		32 Benzoic acid 122 105	0.191	0.017	91.4#	10#	0.23
35	C	33 24-diCl-phol T13.6 162	0.323	0.301	6.7	127	0.00
36	M	34 124-Tri-Cl-Bz M 180 1	0.386	0.327	15.3	118	0.00
37		35 aa-Di-Me-Ph-amine 58	1.442	0.000	100.0#	0#	-11.22#
38		36 Naphthalene 128	1.009	0.850	15.8	121	0.00
39		37 26-diCl-phol 162 164	0.323	0.301	6.7	127	0.00
40		39 4-Chloroaniline 127	0.351	0.306	12.8	134	0.01
41	C	40 Hx-Cl-butadiene 225	0.373	0.330	11.5	119	0.00
42		HYDROQUINONE	0.124	0.075	39.9#	76	0.01
43		41 N-NO-di-n-Bu-amine 84	0.513	0.474	7.7	128	0.00
44	C, M	42 4Cl-3Me-phol M 107 7	0.539	0.519	3.8	130	0.00
45		43 2-Me-naphthalene 115	0.631	0.555	12.0	124	0.00
46	I	44 I3: Acenaphth-d10 164	1.000	1.000	0.0	138	0.00
47	P	45 Hex-Cl-Cyc-Ptdiene 237	0.565	0.517	8.4	126	0.00
48		46 1245-tetra-Cl-Bz 216 21	0.742	0.654	11.8	130	0.00
49	C	47 246-TrClphol S4-.2 196	0.419	0.338	19.3	119	0.00

(#) = Out of Range

3664

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q02.D Vial: 100
Acq On : 30 Apr 98 10:37 am Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon May 04 13:32:32 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
50		48 245-TrClphol S4-.1	196	0.385	0.337	12.4	116	0.00
51	S	49 S4: 2-F-biphenyl	172	1.351	1.130	16.3	124	0.00
52		1-Chloronaphthalene		1.294	1.173	9.3	125	0.00
53		50 2-Cl-naphthalene	162	0.868	0.687	20.9#	122	0.00
54		51 2-Nitroaniline	138	0.386	0.331	14.2	126	0.02
55		53 Di-Me-phthalate	163	1.572	1.466	6.8	131	0.00
56		54 Acenaphthylene	152	1.749	1.353	22.6#	118	0.00
57		55 26-Dinitrotoluene	165	0.379	0.317	16.2	124	0.00
58		56 3-Nitroaniline	138	0.276	0.248	10.0	125	0.03
59	C, M	57 Acenaphthene M 154	153	0.933	0.696	25.5	119	0.00
60	P	58 24Dinitrophol	184	0.209	0.136	35.2#	89	0.01
61		59 Dibenzofuran	168	1.721	1.425	17.2	122	0.00
62		60 Pt-Cl-benzene	250	0.762	0.657	13.8	124	0.00
63		61 1-Naphthylamine	143	0.739	0.596	19.4	126	0.01
64	M	62 24-DinitrotolueneM	165	0.516	0.424	17.8	128	0.02
65		63 2-Naphthylamine	143	0.660	0.586	11.3	136	0.01
66		64 2346-Te-Cl-phenol	232	0.348	0.363	-4.1	122	0.00
67		65 Diethylphthalate	149	1.655	1.517	8.3	139	0.00
68		66 Fluorene	166	1.221	1.028	15.8	123	0.00
69		67 4-Cl-Ph-Ph-ether	204	0.700	0.587	16.2	123	0.00
70	P, M	68 4-nitro-phol M	65	0.532	0.651	-22.4#	142	0.04
71		69 4-Nitroaniline	138	0.299	0.221	25.8#	137	0.04
72	S	70 S5: 246-TriBrPhenol	330	0.364	0.339	6.8	125	0.00
73	I	71 I4: Phenanth-d10 188 18		1.000	1.000	0.0	137	0.00

3665

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q02.D Vial: 100
Acq On : 30 Apr 98 10:37 am Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon May 04 13:32:32 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
74	C	72 N-NO-di-Ph-amine	167	0.191	0.223	-16.8	176#	0.01
75		73 Diphenylamine	169	2.597	3.084	-18.8	174#	0.01
76		74 46Dinitro-2-cresol	198	0.156	0.107	31.2#	102	-0.01
77		75 12-Di-Ph-hydrazine	77	1.877	2.106	-12.2	143	-0.01
78		76 4-Br-Ph-Ph-ether	248	0.233	0.208	10.8	125	0.00
79		77 Phenacetin	108	0.604	0.589	2.5	137	0.02
80		79 Hx-Cl-benzene	284	0.319	0.292	8.5	134	0.00
81		80 4-Aminobiphenyl	169	2.597	3.084	-18.8	174#	0.01
82	C, M	81 Pt-Cl-phenol M	266	0.169	0.206	-22.3	144	0.01
83		84 Pt-Cl-nitro-Bz	237	0.248	0.259	-4.4	146	0.00
84		Pronamide		0.059	0.056	5.2	132	0.00
85		85 Phenanthren I4+.05	178	0.844	0.704	16.5	127	0.00
86		86 Anthracene I4+.13	178	0.918	0.792	13.7	132	0.00
87		Carbazole		0.736	0.834	-13.2	169#	0.00
88		89 Di-n-Bt-phthalate	149	1.234	1.096	11.2	136	0.00
89	C	92 Fluoranthene	202	1.138	0.979	14.0	131	0.00
90		P-dimethylamino azobenzene		0.239	0.209	12.6	133	0.00
91	I	94 I5: Chrysene-d12	240	1.000	1.000	0.0	226#	0.00
92		95 Benzidine 184 92 185		0.259	0.197	23.9#	157#	0.00
93	M	96 Pyrene M	20	0.841	0.485	42.3#	134	0.00
94	S	97 S6: Terphenyl-d14	244	0.690	0.429	37.8#	148	0.00
95		104 Bu-Bz-phthalate	149	0.481	0.253	47.5#	133	0.00
96		108 33'-DiCl-benzidine	252	0.462	0.397	14.1	170#	0.00
97		109 Bz[a]anthra I5-.06	228	1.135	1.037	8.7	178#	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q02.D Vial: 100
Acq On : 30 Apr 98 10:37 am Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon May 04 13:32:32 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
98		110 Chrysene I5+.10	228	0.764	0.441	42.3#	135	0.00
99		111 b(2-EtHx)phthalate	149	0.613	0.586	4.3	233#	-0.01
100	I	112 I6: Perylene-D12	264	1.000	1.000	0.0	142	-0.04
101	C	113 Di-n-Ot-phthalate	149	1.174	1.070	8.9	135	-0.04
102		114 712-DMebz[a]anthra	256	0.395	0.364	8.0	132	-0.03
103		115 Bz(b)fluo ·I6-2.7 253 2		1.114	1.020	8.4	131	-0.03
104	I	116 bz(k)fluor I6-2.5	253	0.806	0.715	11.3	135	-0.03
105	C	117 Benzo[a]pyrene	252	0.882	0.759	13.9	124	-0.03
106		118 3-Me-cholanthrene	268	0.433	0.388	10.4	125	-0.05
107		119 dibenz(a,j)acridine		0.747	0.664	11.1	124	-0.08
108		120 Ind(123cd)pyrene	276	0.970	0.833	14.1	120	-0.07
109		121 Dibz[ah]anthracene	278	0.830	0.746	10.1	125	-0.09
110		122 Bz[ghi]perylene	276	0.821	0.664	19.1	113	-0.11

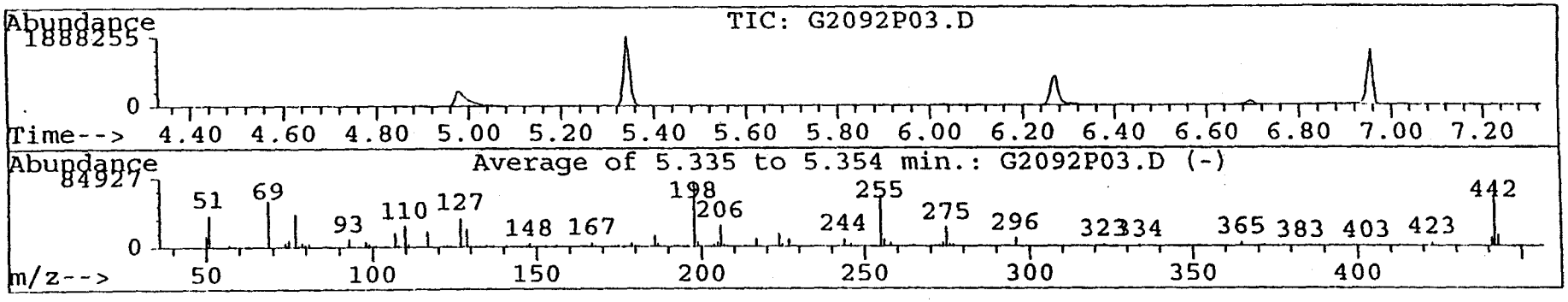
366

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : D:\HPCHEM\1\DATA\98G2092\G2092P03.D
Acq On : 4 May 98 12:30 pm
Sample : dftpp GC6707
Misc :

Vial: 99
Operator: cass
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DFTPP625.M
Title :



Peak Apex is scan: 283

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	48.5	39261	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	70.7	57204	PASS
70	69	0	2	0.4	246	PASS
127	198	40	60	44.3	35814	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	80885	PASS
199	198	5	9	7.0	5654	PASS
275	198	10	30	29.1	23554	PASS
365	198	1	100	5.7	4585	PASS
441	443	1	100	79.0	11852	PASS
442	198	40	100	96.6	78115	PASS
443	442	17	23	19.2	15001	PASS

3968

G2092P03.D DFTPP625.M Thu May 21 17:54:42 1998 5972

Applied P & Ch Laboratory

Semivolatile Organic Instrument Performance Check for Method 8270

Decafluorotriphenylphosphine (DFTPP), Part II

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	DFTPP Inj. Date:	05/04/98	Batch No:	98G1899
		DFTPP Inj. Time:	12:30	Sequence No:	98G2092
Project No:	98HW001	Instrument ID:	M	GC Column:	DB-5.625
Data File Name:	G2092P03			Column ID:	0.25 mm

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

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	98G1899-CCV-04	98G1899-CCV-04	G2092Q03	05/04/98	12:53
2	ES-14S	98-2332-12	2332-12A	05/04/98	14:26
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

3669

Evaluate Continu Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q03.D Vial: 100
Acq On : 4 May 98 12:53 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon May 04 13:32:32 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1 I1: 14-DCB-d4	152	1.000	1.000	0.0	103	0.00
2		2 ...Pyridene	79	1.967	1.788	9.1	93	0.00
3		3 N-NO-di-Me-amine	74	1.537	1.513	1.6	99	0.00
4		4 2-Picoline	93	1.802	1.734	3.8	98	0.00
5		5 Me-Methanesulfonate	80	1.819	1.709	6.1	97	0.00
6	S	6 S1: 2-F-phol 112	64	1.434	1.469	-2.4	102	0.00
7		7 Et-ME-sulfonate	79	1.896	1.853	2.3	105	0.00
8		9 Aniline 93,66		2.146	2.156	-0.5	106	0.00
9	C, M	10 Phenol M	94	1.877	1.916	-2.1	108	0.00
10	S	11 S2: phenol-d6	99	1.686	1.699	-0.8	110	0.00
11		12 Bis(2-Cl-Et)ether	63	1.531	1.532	-0.1	108	0.00
12	S	2-Chlorophenol-d4		1.097	1.121	-2.2	107	0.00
13	M	13 2-Cl-phol M	12	1.119	1.122	-0.3	104	0.00
14		14 13-DCB	1	1.252	1.225	2.1	104	0.00
15		1-METHYL-2-PYRROLIDINONE		1.033	1.077	-4.2	110	0.00
16	C, M	15 14-DCB M	146	1.252	1.225	2.1	104	0.00
17	S	1,2-Dichlorobenzene-d4		1.178	1.125	4.5	104	0.00
18		16 12-DCB	146 148	1.030	1.021	0.8	110	0.00
19		17 Bzl alcohol T10.9	108	0.924	0.967	-4.7	115	0.00
20		18 b(2-Cl-i-Pr)ether	121	0.368	0.370	-0.7	109	0.00
21	P, M	19 N-NO-di-n-Pr-amine M	130	1.631	1.695	-3.9	111	0.00
22		20 o-cresol T11.5	107	1.281	1.367	-6.7	110	0.00
23		21 Hx-Cl-ethane	117	0.835	0.669	19.9	85	0.00
24		22 m/p-cresol T11.9	107	0.640	0.684	-6.7	110	0.00
25	I	23 I2: Naphthalene-d8	136	1.000	1.000	0.0	114	0.00

3672

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q03.D Vial: 100
Acq On : 4 May 98 12:53 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon May 04 13:32:32 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
26		24 Acetophenone 105 77	0.807	0.761	5.7	108	0.00
27	S	25 S3: nitro-Bz-d5 82	0.938	0.863	8.0	104	0.00
28		26 Nitrobenzene 77	0.970	0.905	6.6	106	0.00
29		27 N-NO-piperidine 114	0.768	0.765	0.3	115	0.00
30		28 Isophorone 82	1.526	1.467	3.8	111	0.00
31	C	29 2-Nitrophenol 139	0.227	0.220	3.0	110	0.00
32		30 24-diMe-phol T13.2 107	0.351	0.351	-0.1	115	0.00
33		31 bis(2-Cl-ethoxy)Me 95	0.211	0.210	0.9	114	0.00
34		32 Benzoic acid 122 105	0.191	0.275	-43.7#	144	0.04
35	C	33 24-diCl-phol T13.6 162	0.323	0.309	4.3	109	0.00
36	M	34 124-Tri-Cl-Bz M 180 1	0.386	0.330	14.6	99	0.00
37		35 aa-Di-Me-Ph-amine 58	1.442	1.131	21.6#	79	0.17
38		36 Naphthalene 128	1.009	0.938	7.0	112	0.00
39		37 26-diCl-phol 162 164	0.323	0.309	4.3	109	0.00
40		39 4-Chloroaniline 127	0.351	0.312	11.0	114	0.00
41	C	40 Hx-Cl-butadiene 225	0.373	0.313	16.0	95	0.00
42		HYDROQUINONE	0.124	0.138	-11.0	117	0.00
43		41 N-NO-di-n-Bu-amine 84	0.513	0.495	3.5	112	0.00
44	C, M	42 4Cl-3Me-phol M 107 7	0.539	0.519	3.8	108	0.00
45		43 2-Me-naphthalene 115	0.631	0.606	3.9	113	0.00
46	I	44 I3: Acenaphth-d10 164	1.000	1.000	0.0	114	0.00
47	P	45 Hex-Cl-Cyc-Ptdiene 237	0.565	0.452	20.0	91	0.00
48		46 1245-tetra-Cl-Bz 216 21	0.742	0.588	20.8#	97	-0.01
49	C	47 246-TrClphol S4-.2 196	0.419	0.383	8.5	112	0.00

(#) = Out of Range

Evaluate Continu Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q03.D
Acq On : 4 May 98 12:53 pm
Sample : 60ppm
Misc :

Vial: 100
Operator: cass
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon May 04 13:32:32 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
50		48 245-TrClphol S4-.1	196	0.385	0.428	-11.4	122	0.00
51	S	49 S4: 2-F-biphenyl	172	1.351	1.182	12.5	108	0.00
52		1-Chloronaphthalene		1.294	1.129	12.7	100	-0.01
53		50 2-Cl-naphthalene	162	0.868	0.772	11.0	114	0.00
54		51 2-Nitroaniline	138	0.386	0.354	8.3	112	0.00
55		53 Di-Me-phthalate	163	1.572	1.496	4.9	111	0.00
56		54 Acenaphthylene	152	1.749	1.550	11.4	112	-0.01
57		55 26-Dinitrotoluene	165	0.379	0.333	12.0	108	-0.01
58		56 3-Nitroaniline	138	0.276	0.264	4.4	110	-0.02
59	C, M	57 Acenaphthene M 154	153	0.933	0.738	21.0	104	-0.01
60	P	58 24Dinitrophol	184	0.209	0.223	-6.6	121	0.00
61		59 Dibenzofuran	168	1.721	1.522	11.6	108	0.00
62		60 Pt-Cl-benzene	250	0.762	0.623	18.2	98	0.00
63		61 1-Naphthylamine	143	0.739	0.620	16.1	109	0.00
64	M	62 24-DinitrotolueneM	165	0.516	0.453	12.3	113	0.00
65		63 2-Naphthylamine	143	0.660	0.585	11.3	113	0.00
66		64 2346-Te-Cl-phenol	232	0.348	0.363	-4.1	101	0.00
67		65 Diethylphthalate	149	1.655	1.594	3.7	121	-0.01
68		66 Fluorene	166	1.221	1.112	8.9	110	0.00
69		67 4-Cl-Ph-Ph-ether	204	0.700	0.618	11.8	107	0.00
70	P, M	68 4-nitro-phol M	65	0.532	0.617	-15.9	112	0.00
71		69 4-Nitroaniline	138	0.299	0.222	25.8#	113	0.00
72	S	70 S5: 246-TriBrPhenol	330	0.364	0.302	17.0	92	0.00
73	I	71 I4: Phenanth-d10 188 18		1.000	1.000	0.0	110	0.00

(#) = Out of Range

3672

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q03.D
Acq On : 4 May 98 12:53 pm
Sample : 60ppm
Misc :

Vial: 100
Operator: cass
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon May 04 13:32:32 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
74	C	72 N-NO-di-Ph-amine	167	0.191	0.181	5.0	115	0.00
75		73 Diphenylamine	169	2.597	2.550	1.8	115	0.00
76		74 46Dinitro-2-cresol	198	0.156	0.141	9.7	107	-0.04
77		75 12-Di-Ph-hydrazine	77	1.877	2.200	-17.2	120	0.00
78		76 4-Br-Ph-Ph-ether	248	0.233	0.209	10.5	100	0.00
79		77 Phenacetin	108	0.604	0.616	-2.0	115	0.00
80		79 Hx-Cl-benzene	284	0.319	0.271	15.0	100	0.00
81		80 4-Aminobiphenyl	169	2.597	2.550	1.8	115	0.00
82	C, M	81 Pt-Cl-phenol M	266	0.169	0.183	-8.5	102	0.00
83		84 Pt-Cl-nitro-Bz	237	0.248	0.249	-0.5	113	0.00
84		Pronamide		0.059	0.054	9.9	101	0.00
85		85 Phenanthren I4+.05	178	0.844	0.757	10.3	110	0.00
86		86 Anthracene I4+.13	178	0.918	0.853	7.1	114	0.00
87		Carbazole		0.736	0.705	4.3	114	0.00
88		89 Di-n-Bt-phthalate	149	1.234	1.169	5.3	116	-0.01
89	C	92 Fluoranthene	202	1.138	0.991	13.0	106	0.00
90		P-dimethylamino azobenzene		0.239	0.206	13.7	105	-0.01
91	I	94 I5: Chrysene-d12	240	1.000	1.000	0.0	121	-0.01
92		95 Benzidine 184 92 185		0.259	0.198	23.7#	84	-0.01
93	M	96 Pyrene M	20	0.841	0.722	14.1	106	0.00
94	S	97 S6: Terphenyl-d14	244	0.690	0.581	15.9	107	-0.01
95		104 Bu-Bz-phthalate	149	0.481	0.400	16.9	112	-0.01
96		108 33'-DiCl-benzidine	252	0.462	0.516	-11.7	118	-0.01
97		109 Bz[a]anthra I5-.06	228	1.135	1.328	-17.0	122	0.00

(#) = Out of Range

3673

Evaluate Continu Calibration Report

Data File : D:\HPCHEM\1\DATA\98G2092\G2092Q03.D Vial: 100
Acq On : 4 May 98 12:53 pm Operator: cass
Sample : 60ppm Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270M064.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Mon May 04 13:32:32 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
98		110 Chrysene I5+.10	228	0.764	0.632	17.3	103	-0.01
99		111 b(2-EtHx)phthalate	149	0.613	0.589	3.8	125	-0.02
100	I	112 I6: Perylene-D12	264	1.000	1.000	0.0	89	-0.06
101	C	113 Di-n-Ot-phthalate	149	1.174	1.402	-19.4	111	-0.05
102		114 712-DMebz[a]anthra	256	0.395	0.435	-10.0	99	-0.04
103		115 Bz(b)fluo I6-2.7	253 2	1.114	1.122	-0.8	91	-0.05
104	I	116 bz(k)fluor I6-2.5	253	0.806	0.893	-10.8	106	-0.04
105	C	117 Benzo[a]pyrene	252	0.882	0.892	-1.1	91	-0.04
106		118 3-Me-cholanthrene	268	0.433	0.427	1.4	86	-0.06
107		119 dibenz(a,j)acridine		0.747	0.711	4.8	83	-0.09
108		120 Ind(123cd)pyrene	276	0.970	0.855	11.8	77	-0.11
109		121 Dibz[ah]anthracene	278	0.830	0.740	10.8	78	-0.12
110		122 Bz[ghi]perylene	276	0.821	0.679	17.2	72	-0.14

367

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8270

Client Name:	SOTA Environmental	Contract No:.		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		CCV Data File:	G1899Q02	Instrument ID:	M

Batch No: 98G1899

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			04/17/98 18:17	49049	7.77	142222	10.60	104928	14.75
CCV Upper Limit				98098	8.27	284444	11.10	209856	15.25
CCV Lower Limit				24524	7.27	71111	10.10	52464	14.25
1	98G1899-MB-01	98G1899-MB-01	04/17/98 18:54	65252	7.77	221070	10.59	153786	14.75
2	98G1899-LCS-01	98G1899-LCS-01	04/17/98 19:34	53314	7.78	181801	10.60	144425	14.76
3	98G1899-LSD-01	98G1899-LSD-01	04/17/98 20:10	62217	7.78	208947	10.60	154072	14.76
4	DMW-5	98-2332-1	04/17/98 20:47	66347	7.77	218631	10.59	128153	14.75
5	ES-7D	98-2332-3	04/17/98 22:00	48649	7.77	160209	10.58	109286	14.74
6	ES-7S	98-2332-4	04/17/98 22:37	50826	7.77	172345	10.58	116189	14.74
7	ES-11D	98-2332-6	04/17/98 23:50	34157	7.77	122554	10.58	84354	14.74
8	ES-11S	98-2332-7	04/18/98 00:27	44427	7.77	153425	10.58	102956	14.74
9	ES-13D	98-2332-9	04/18/98 01:40	38472	7.77	134681	10.58	97514	14.74
10	ES-13S	98-2332-10	04/18/98 02:16	50097	7.77	163103	10.58	114438	14.74
11	ES-14D	98-2332-11	04/18/98 02:53	67092	7.78	219848	10.59	157130	14.75
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

IS-1 = 1,4-Dichlorobenzene-d4
IS-2 = Naphthalene-d8
IS-3 = Acenaphthene-d10

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

3675

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8270

Client Name: SOTA Environmental
Case No:
Project ID: NTC

Contract No:
SAS No:
Project No: 98HW001
CCV Data File: G1899Q02

Lab Code: APCL
Service ID: 982332
Sample Matrix: Water
Instrument ID: M

Batch No: 98G1899

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-4 Area #	IS-4 RT #	IS-5 Area #	IS-5 RT #	IS-6 Area #	IS-6 RT #
12 Hour CCV STD			04/17/98 18:17	205310	18.16	347493	21.70	259079	23.62
CCV Upper Limit				410620	18.66	694986	22.20	518158	24.12
CCV Lower Limit				102655	17.66	173746	21.20	129539	23.12
1	98G1899-MB-01	98G1899-MB-01	04/17/98 18:54	315967	18.14	369133	21.69	374873	23.61
2	98G1899-LCS-01	98G1899-LCS-01	04/17/98 19:34	283253	18.18	488495	21.71	364130	23.63
3	98G1899-LSD-01	98G1899-LSD-01	04/17/98 20:10	299187	18.18	526249	21.71	372292	23.63
4	DMW-5	98-2332-1	04/17/98 20:47	246751	18.14	282021	21.69	275082	23.61
5	ES-7D	98-2332-3	04/17/98 22:00	222598	18.13	252446	21.69	241104	23.60
6	ES-7S	98-2332-4	04/17/98 22:37	233094	18.14	262321	21.69	254223	23.61
7	ES-11D	98-2332-6	04/17/98 23:50	169395	18.13	198024	21.68	201689	23.60
8	ES-11S	98-2332-7	04/18/98 00:27	197185	18.13	223041	21.69	218384	23.59
9	ES-13D	98-2332-9	04/18/98 01:40	221691	18.13	277811	21.69	271178	23.60
10	ES-13S	98-2332-10	04/18/98 02:16	241550	18.14	284548	21.69	271413	23.61
11	ES-14D	98-2332-11	04/18/98 02:53	332667	18.14	385355	21.69	371041	23.62
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

IS-4 = Phenanthrene-d10
IS-5 = Chrysene-d12
IS-6 = Perylene-d12

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

3676

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8270

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		CCV Data File:	G2092Q01	Instrument ID:	M

Batch No: 98G1899

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			04/29/98 12:26	119194	7.89	313149	10.72	184888	14.88
CCV Upper Limit				238388	8.39	626298	11.22	369776	15.38
CCV Lower Limit				59597	7.39	156574	10.22	92444	14.38
1	ES-6D	98-2332-2	04/29/98 18:43	105811	7.88	341429	10.70	207917	14.86
2	ES-7DRE	98-2332-3RE	04/29/98 19:20	95725	7.88	313011	10.70	186469	14.86
3	ES-7SRE	98-2332-4RE	04/29/98 19:57	96713	7.88	313254	10.70	190565	14.86
4									
5									
6									
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9									
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18									
19									
20									
21									
22									

IS-1 = 1,4-Dichlorobenzene-d4

IS-2 = Naphthalene-d8

IS-3 = Acenaphthene-d10

Area Upper Limit = +100% of CCV internal standard area

Area Lower Limit = - 50% of CCV internal standard area

RT Upper Limit = +0.50 minutes of CCV internal standard RT

RT Lower Limit = - 0.50 minutes of CCV internal standard RT

3677

Column used to flag values outside QC limits with an asterisk.

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8270

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		CCV Data File:	G2092Q01	Instrument ID:	M

Batch No: 98G1899

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-4 Area #	IS-4 RT #	IS-5 Area #	IS-5 RT #	IS-6 Area #	IS-6 RT #
12 Hour CCV STD			04/29/98 12:26	392232	18.26	760794	21.79	456417	23.74
CCV Upper Limit				784464	18.76	1521588	22.29	912834	24.24
CCV Lower Limit				196116	17.76	380397	21.29	228208	23.24
1	ES-6D	98-2332-2	04/29/98 18:43	404873	18.23	474522	21.77	465954	23.73
2	ES-7DRE	98-2332-3RE	04/29/98 19:20	355929	18.23	402108	21.77	397848	23.72
3	ES-7SRE	98-2332-4RE	04/29/98 19:57	359044	18.23	408778	21.77	385238	23.72
4									
5									
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22									

IS-4 = Phenanthrene-d10
IS-5 = Chrysene-d12
IS-6 = Perylene-d12

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

367E

Column used to flag values outside QC limits with an asterisk.

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8270

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		CCV Data File:	G2092Q02	Instrument ID:	M

Batch No: 98G1899

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			04/30/98 10:37	96310	7.88	289811	10.70	180997	14.86
CCV Upper Limit				192620	8.38	579622	11.20	361994	15.36
CCV Lower Limit				48155	7.38	144905	10.20	90498	14.36
1	Field Blank	98-2332-5	04/30/98 11:14	134282	7.88	419778	10.70	260592	14.86
2	ES-11SRE	98-2332-7RE	04/30/98 11:51	109944	7.88	353812	10.70	226004	14.86
3	ES-12S	98-2332-8	04/30/98 12:28	101354	7.88	331336	10.70	200929	14.86
4	ES-14DRE	98-2332-11RE	04/30/98 13:05	87426	7.88	295519	10.70	191335	14.86
5									
6									
7									
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22									

IS-1 = 1,4-Dichlorobenzene-d4
IS-2 = Naphthalene-d8
IS-3 = Acenaphthene-d10

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8270

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		CCV Data File:	G2092Q02	Instrument ID:	M

Batch No: 98G1899

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-4 Area #	IS-4 RT #	IS-5 Area #	IS-5 RT #	IS-6 Area #	IS-6 RT #
12 Hour CCV STD			04/30/98 10:37	365780	18.24	741952	21.78	423610	23.73
CCV Upper Limit				731560	18.74	1483904	22.28	847220	24.23
CCV Lower Limit				182890	17.74	370976	21.28	211805	23.23
1	Field Blank	98-2332-5	04/30/98 11:14	509389	18.23	626514	21.77	456317	23.72
2	ES-11SRE	98-2332-7RE	04/30/98 11:51	464094	18.23	609242	21.77	530167	23.72
3	ES-12S	98-2332-8	04/30/98 12:28	382267	18.23	408173	21.77	307692	23.72
4	ES-14DRE	98-2332-11RE	04/30/98 13:05	371942	18.23	455404	21.77	419038	23.73
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22									

IS-4 = Phenanthrene-d10
IS-5 = Chrysene-d12
IS-6 = Perylene-d12

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

3680

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8270

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		CCV Data File:	G2092Q03	Instrument ID:	M

Batch No: 98G1899

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			05/04/98 12:53	80476	7.87	241985	10.70	150057	14.86
CCV Upper Limit				160952	8.37	483970	11.20	300114	15.36
CCV Lower Limit				40238	7.37	120992	10.20	75028	14.36
1	ES-14S	98-2332-12	05/04/98 14:26	92403	7.88	309949	10.69	179528	14.85
2									
3									
4									
5									
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20									
21									
22									

IS-1 = 1,4-Dichlorobenzene-d4
IS-2 = Naphthalene-d8
IS-3 = Acenaphthene-d10

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

Column used to flag values outside QC limits with an asterisk.

3681

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8270

Client Name: SOTA Environmental
Case No:
Project ID: NTC
Batch No: 98G1899

Contract No:
SAS No:
Project No: 98HW001
CCV Data File: G2092Q03

Lab Code: APCL
Service ID: 982332
Sample Matrix: Water
Instrument ID: M

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-4 Area #	IS-4 RT #	IS-5 Area #	IS-5 RT #	IS-6 Area #	IS-6 RT #
12 Hour CCV STD			05/04/98 12:53	293136	18.24	395237	21.77	265914	23.71
CCV Upper Limit				586272	18.74	790474	22.27	531828	24.21
CCV Lower Limit				146568	17.74	197618	21.27	132957	23.21
1	ES-14S	98-2332-12	05/04/98 14:26	343868	18.22	351667	21.76	329001	23.71
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20									
21									
22									

IS-4 = Phenanthrene-d10
IS-5 = Chrysene-d12
IS-6 = Perylene-d12

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

3682

Column used to flag values outside QC limits with an asterisk.

MISCELLANEOUS

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Analysis Anomaly Record

Batch #: 98G1899 Method: 8270 Matrix: W Date: 4/14/98

Samples Involved: 98-2332 98-2340

- **Anomaly for MS/MSD/MD**
  - ☐ 1. MS/MSD out of control limit, sample matrix interference suspected
  - ☐ 2. MS or MSD out of control limit, but $\overline{MS}$ is O.K.
  - ☐ 3. One of MS/MSD, and $\overline{MS}$ out of control limit, but not enough sample for re-analysis
  - ☑ 4. Not enough sample for MS/MSD, LCS/LCSD may be used
  - ☐ 5. Spiked samples contain high concentration of analytes (>4 × spiked concentration)
  - ☐ 6. MS/MSD out of control limit, but post spike is O.K.
  - ☐ 7. MS/MSD out of control limit, due to the heterogenous matrix
  - ☐ 8. MS/MSD out of control limit, due to the very special matrix
  - ☐ 9. Not enough sample for matrix duplicate (MD)
- **Anomaly for Holding time (HT)**
  - ☐ 10. HT has been exceeded when received, authorized by the Client to carry on with the analyses
  - ☐ 11. Extraction HT was passed, authorized by the Client to carry on with the analyses
  - ☐ 12. Analysis HT was passed, authorized by the Client to carry on with the analyses
- **Surrogates Anomaly**
  - ☐ 13. Surrogate recovery out of control limit (see Level-1 Part III), sample matrix interference suspected
  - ☐ 14. Surrogate recovery out of control limit (see Level-1 Part III), but not enough sample for re-analysis
  - ☐ 15. Surrogate recovery out of control limit, due to very special matrix
  - ☐ 16. Surrogate diluted out (for highly contaminated samples)
  - ☐ 17. Lower surrogate recovery due to cleanup process
- **Chromatogram Pattern Anomaly**
  - ☐ 18. Not a typical gasoline chromatogram pattern
  - ☐ 19. Not a typical diesel chromatogram pattern
  - ☐ 20. Not a typical diesel chromatogram pattern, but similar to heavy-oil or motor oil
  - ☐ 21. Not a typical kerosene chromatogram pattern
  - ☐ 22. Not a typical jet fuel chromatogram pattern
  - ☐ 23. Not a complete PCB chromatogram pattern, interference/degration suspected
- **Other anomaly**

Problem Description: _____

Reason: _____

Analyst: Zlm Date: 4/14/98

Note: _____

3681

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Analysis Anomaly Record

Batch #: 984899 Method: 8270 Matrix: W Date: 4-20-98

Samples Involved: 2332, 2342 - 2340
01-12

- **Anomaly for MS/MSD/MD**
  - ☐ 1. MS/MSD out of control limit, sample matrix interference suspected
  - ☐ 2. MS or MSD out of control limit, but $\overline{MS}$ is O.K.
  - ☐ 3. One of MS/MSD, and $\overline{MS}$ out of control limit, but not enough sample for re-analysis
  - ☐ 4. Not enough sample for MS/MSD, LCS/LCSD may be used
  - ☐ 5. Spiked samples contain high concentration of analytes (>4 × spiked concentration)
  - ☐ 6. MS/MSD out of control limit, but post spike is O.K.
  - ☐ 7. MS/MSD out of control limit, due to the heterogenous matrix
  - ☐ 8. MS/MSD out of control limit, due to the very special matrix
  - ☐ 9. Not enough sample for matrix duplicate (MD)
- **Anomaly for Holding time (HT)**
  - ☐ 10. HT has been exceeded when received, authorized by the Client to carry on with the analyses
  - ☐ 11. Extraction HT was passed, authorized by the Client to carry on with the analyses
  - ☐ 12. Analysis HT was passed, authorized by the Client to carry on with the analyses
- **Surrogates Anomaly**
  - ☑ 13. Surrogate recovery out of control limit (see Level-1 Part III), sample matrix interference suspected
  - ☐ 14. Surrogate recovery out of control limit (see Level-1 Part III), but not enough sample for re-analysis
  - ☐ 15. Surrogate recovery out of control limit, due to very special matrix
  - ☐ 16. Surrogate diluted out (for highly contaminated samples)
  - ☐ 17. Lower surrogate recovery due to cleanup process
- **Chromatogram Pattern Anomaly**
  - ☐ 18. Not a typical gasoline chromatogram pattern
  - ☐ 19. Not a typical diesel chromatogram pattern
  - ☐ 20. Not a typical diesel chromatogram pattern, but similar to heavy-oil or motor oil
  - ☐ 21. Not a typical kerosene chromatogram pattern
  - ☐ 22. Not a typical jet fuel chromatogram pattern
  - ☐ 23. Not a complete PCB chromatogram pattern, interference/degration suspected
- **Other anomaly**

Problem Description: _____

Reason: _____

Analyst: Cass Sharp Date: 4-20-98

Note: _____ 3685

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
(909) 590-1828 Fax: (909) 590-1498

Analytical Information

Sample Preparation Batch: Extraction

Batch # 98G1899
Matrix Water
Analytical Method 8270/625
Preparation Method 3510
Prepared Date 04/14/98
Prepared by Jeff Zhu

#	Sample ID	Extrct. Ini. Vol./Amnt. X (ml)	Extraction Final Vol. V (ml)	Final Prep. $f_1=V/X$
1	98G1899MB	1000	1.0	0.00100
2	98G1899LCS	1000	1.0	0.00100
3	98G1899LCSD	1000	1.0	0.00100
4	98-2332-01	1000	1.0	0.00100
5	98-2332-02	1000	1.0	0.00100
6	98-2332-03	1000	1.0	0.00100
7	98-2332-04	1000	1.0	0.00100
8	98-2332-05	1000	1.0	0.00100
9	98-2332-06	1000	1.0	0.00100
10	98-2332-07	1000	1.0	0.00100
[illegible]	98-2332-08	1000	1.0	0.00100
[illegible]	98-2332-09	1000	1.0	0.00100
13	98-2332-10	1000	1.0	0.00100
14	98-2332-11	1000	1.0	0.00100
15	98-2332-12	1000	1.0	0.00100
16	98-2340-01	1000	1.0	0.00100

Note/Anomaly:

I [illegible]e checked all raw data in the worksheets of this extraction batch and they are 100% the same as in [illegible]ogbook.

Prepared by Zhu Date 4/14/98

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Organic Sample Preparation Logbook

Batch # 98G1899 Matrix: W Target method: 8270 EXT Method: 3510 Date: 4/14/98

Solvent: CHCl2 Lot # 464900 Exchange Solvent: _____ Lot # _____ Analyst: Zhu

Lot #: Surr.: GC-7577 Conc.: 7[illegible] ppm Na_2SO_4: _____

Op. #	Sample Type	Sample ID #	Smpl Amnt (mL or g)	Surr. Vol mL	Extract sub-ID	Final Vol. mL	Dilution F=V/X	Note & Anomaly
2021	MB	98G1999-K01	1000	1.0	8270	1.0	0.001	DW1113
2022	LCS	-L01						
2023	LCSD	-J01						
2024	Sample-1	98-2332-1						
2025	MS							
2026	MSD	Zhu	4/14/98					
2027	Sample-2	98-2332-2	1000	1.0	8270	1.0	0.001	
2028	Sample-3	-3						
2029	Sample-4	-4						
2030	Sample-5	-5						
2031	Sample-6	-6						
2032	Sample-7	-7						
2033	Sample-8	-8						
2034	Sample-9	-9						
2035	Sample-10	-10						
2036	Sample-11	-11						
2037	Sample-12	-12						
2038	Sample-13	98-2340-1						
2039	Sample-14							
2040	Sample-15							
2041	Sample-16							
2042	Sample-17							
2043	Sample-18							
2044	Sample-19							
2045	Sample-20			4/14/98				
2046	MTX Dup.							
2047	LCS'							
2048	LCSD'		Zhu					
2049	MS'							
2050	MSD'		Zhu					Zhu

Type	Op #	STD Lot #	C_{std}(ppm) × V_{std}(mL)/X(g or mL) = T	Op #	STD Lot #	C_{std}(ppm) × V_{std}(mL)/X(g or mL) = T
LCS/LCSD	2022	GC-7632	1000 × 50/400 × 1.0 /X = ppb	2023	GC-7632	1000 × 50/400 × 1.0 /X = ppb
MS/MSD		GC-	1000 × × /X = ppb		GC-	1000 × × /X = ppb
LCS'/LCSD'		GC-	1000 × × /X = ppb		GC-	1000 × × /X = ppb
MS'/MSD'		GC-	1000 × × /X = ppb		GC-	1000 × × /X = ppb

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Applied P & Ch Laboratory
[illegible]60 Magnolia Ave. Chino CA 91710
[illegible] (909) 590-1828 Fax: (909) 590-1498

Analytical Information

Sample Preparation Batch: Extraction

Batch # 98G2092
Matrix Soil
Analytical Method 8270/625
Preparation Method 3550
Prepared Date 04/28/98
Prepared by Danny Wong

#	Sample ID	Extrct. Ini. Vol./Amnt. X (g)	Extraction Final Vol. V (ml)	Final Prep. $f_1=V/X$
1	98G2092MB	30.00	1.00	0.0333
2	98G2092LCS	30.00	1.00	0.0333
3	98G2092LCSD	30.00	1.00	0.0333
4	98G2092MS	30.00	1.00	0.0333
5	98G2092MSD	30.00	1.00	0.0333
6	98-2630-01M	30.00	1.00	0.0333

Note/Anomaly:

[illegible] checked all raw data in the worksheets of this extraction batch and they are 100% the same as in [illegible]gbook.

3688

[illegible]repared by Danny Date 4-23-98

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Organic Sample Preparation Logbook

Batch # 9862092 Matrix: S Target method: 8270. EXT Method: 3550 Date: 4-2-98

Solvent: CH_2Cl_2/Acetone Lot # 964900/972940. Exchange Solvent: _____ Lot # _____ Analyst: Dw

Lot #: Surr.: GC-7366 Conc.: 150/60 ppm Na_2SO_4: _____

Op. #	Sample Type	Sample ID #	Smpl Amnt (mL or g)	Surr. Vol mL	Extract sub-ID	Final Vol. mL	Dilution F=V/X	Note & Anomaly
1091	MB	62092-K01	30.00	1.00	8270	1.00	0.0333	
1092	LCS	-L01	30.00	↓	↓	↓	↓	
1093	LCSD	-J01	30.00	↓	↓	↓	↓	
1094	Sample-1	98-2630-1	30.00	↓	↓	↓	↓	
1095	MS	-1	30.00	↓	↓	↓	↓	
1096	MSD	-1	30.00	↓	↓	↓	↓	
1097	Sample-2							
1098	Sample-3							
1099	Sample-4							
1100	Sample-5							
1101	Sample-6							
1102	Sample-7							
1103	Sample-8							
1104	Sample-9							
1105	Sample-10							
1106	Sample-11							
1107	Sample-12							
1108	Sample-13							
1109	Sample-14							
1110	Sample-15				4-28-98			
1111	Sample-16							
1112	Sample-17							
1113	Sample-18							
1114	Sample-19							
1115	Sample-20							
1116	MTX Dup.							
1117	LCS'							
1118	LCSD'							
1119	MS'							
1120	MSD'							

Type	Op #	STD Lot #	C_{std}(ppm) × V_{std}(mL)/X(g or mL) = T	Op #	STD Lot #	C_{std}(ppm) × V_{std}(mL)/X(g or mL) = T
LCS/LCSD	1092	GC-7363	1000 × 100/50 × 1.00 /X= ppb	1093	GC-7363	1000 × 100/50 × 1.00 /X= ppb
MS/MSD	1095	GC-7364	1000 × ↓ × ↓ /X= ppb	1096	GC-7364	1000 × ↓ × ↓ /X= ppb
LCS'/LCSD'		GC-	1000 × × /X= ppb		GC-	1000 × × /X= ppb
MS'/MSD'		GC-	1000 × × /X= ppb		GC-	1000 × × /X= ppb

3688

FILE: (CUST.DOC.GC)PREP_LOG.TEX Root-File: PREP_LOG_ROOT.TEX 1-Page-File: PREP_LOG1.TEX
APCL form 3-128 April 07, 1996

Applied P & Ch Laboratory
1760 Magnolia Ave. Chino CA 91710
(909) 590-1828 Fax: (909) 590-1498

Semi-VOC Analysis Logbook

Sequence # 98G1899 Starting Date: 4/17/98 Time 12:02 PM Analyst: Cass

Seq. type: ☐ Cal. ☒ Ini. Batch ☐ Middle ☐ Final ☐ Continue ☐ Study Datafile Path: d:\HPCHEM\1\DATA\98G1899

Routine Maintenance: ☐ Replace Septum ☒ Replace Liner ☐ Replace Seal ☐ Cut Guid Column ☐ Cut Column ☐ Others

Seq. #	Batch-No	MTX	S Type*	Sample ID	Method**	f_2	F	A-#	Datafile	OK ?†	Note††
3521	98G1899	W	SP	G1899P01	DFTPP625	✓	1	99	G1899P01	✓	12:03 PM 4/17/98
3522			calib	063-010	S270im063		1	1	063-010	✓	SC7216
3523				063-100			1	6	063-100	✓	
3524				063-020			1	2	063-020	✓	
3525				063-040			1	3	063-040	✓	
3526				063-060			1	4	063-060	✓	
3527				063-080			1	5	063-080	✓	
3528				ICV			1	7	ICV	✓	SC7274
3529			SP	G1899P02	DFTPP625		1	99	G1899P02	✓	4/17 6:01 PM
3530			CCV	G1899Q01	S270im063		1	100	G1899Q01	✓	SC7216
3531			mb	G1899K01			0.001	8	G1899K01	✓	
3532			LCS	G1899L01				9	G1899L01	✓	
3533			LCSD	G1899J01				10	G1899J01	✓	
3534			Sample	2332-01				11	2332-01	✓	
[illegible]				2332-02				12	2332-02	✓	
3536				2332-03				13	2332-03	✓	
3537				2332-04				14	2332-04	✓	
3538				2332-05				15	2332-05	✓	
3539				2332-06				16	2332-06	✓	
3540				2332-07				17	2332-07	✓	
3541				2332-08				18	2332-08	✓	
3542				2332-09				19	2332-09	✓	
3543				2332-10				20	2332-10	✓	
3544				2332-11				21	2332-11	✓	
3545				2332-12				22	2332-12	✓	
3546				2340-01				23	2340-01	✓	
[illegible]			closing	G1899F01			1	100	G1899F01	✓	SC7216
			confirm	2361-1			0.0167	24	2361-1	✓	
3549			confirm	2361-2		✓	0.0167	25	2361-2	✓	

Footnote/Anomaly:

*Sample type such as, SP(BFB, or DFTPP), CCV, CVA, CVB, LCS, LCSD, MS, MSD, MD, CLS etc. For field samples leave as blank.

**Method name: [MMMM][S][nnn]. [MMMM] - method code, per SOP C-88. Special codes: DSL2: Diesel #2; FP30: Fuel Finger Print (C8-C30); FP40: Fuel Finger Print (C8-C40); EGLY: Ethylene Glycol; FORM: Formaldehyde; MEOH: Methyl Alcohol. [S] - APCL system code; [nnn] - initial calibration numbe

†Specify the result of the injection is accepted (√), or denied (X), or need Re-run (R) or use as a reference data (ref).

††Lot # for CCV/Closing, Time for SP (e.g. DFTPP) must be recorded.

3690

LOG-086

Semi-VOC Analysis Logbook

Applied P & Ch Laboratory
Chino, CA 91710
Fax (909) 590-1498

Sequence # 98G1981 Starting Date: 4/21/98 Time: 4:42am Analyst: [illegible]

Type: ☐ Cal. ☒ Ini. Batch ☐ Middle ☐ Final ☐ Continue ☐ Study Datafile Path: L:\HPCHEM\1\DATA\98G1981

Maintenance: ☐ Replace Septum ☐ Replace Liner ☐ Replace Seal ☐ Cut Guid Column ☐ Cut Column ☐ Others

#	Batch-No	MTX	S Type*	Sample ID	Method**	f_2	F	A-#	Datafile	OK ?†	Note††
3561	98G1981	S	SP	G1981P01	DFTPP625		1	99	G1981P01	✓	4/21 9:42am
3562			CCV	G1981Q01	8270M063		1	100	G1981Q01	✓	gc7216
3563			mb	G1981K01			0.0333	1	G1981K01	✓	
3564			LCS	G1981L01				2	G1981L01	✓	
3565			Lcsd	G1981J01				3	G1981J01	✓	
3566			ms	G1981M01				4	G1981M01	✓	
3567			msd	G1981N01				5	G1981N01	✓	
3568			Sample	2445-05				6	2445-05	✓	
3569			ms	G1981M02				7	G1981M02	✓	
3570			msd	G1981N02				8	G1981N02	✓	
3571			Sample	2445-12				9	2445-12	✓	
3572				2445-32				10	2445-32	✓	
3573				2445-38				11	2445-38	✓	
3574				2445-41				12	2445-41	✓	
3575				2445-74				13	2445-74	✓	
3576				2445-79				14	2445-79	✓	
3577				2445-59				15	2445-59	✓	
3578			SP	G1981P02	DFTPP625			99	G1981P02	X ✓	4/23 6:20pm cs 4/28/98
3579			CCV	G1981Q02	8270M063		cs 4/28/98 0.0333	100	G1981Q02 cs 4/28/98	X ✓	cs 4/28/98
3570			Sample	2445-12A	8270M063		0.0333	16	2445-12A	QC failed	
3571			Sample	2445-38A	8270M063		0.0333	17	2445-38A	QC failed	
3572			calib	064-010	8270M064		1	31	064-010	X	gc7216
3573				064-020				32	064-020	X	
3574				064-040				33	064-040	X	
3575				064-060				34	064-060	X	
3576				064-080				35	064-080	X	
3577				064-100				36	064-100	X	
3578				064-041				37	064-041	X	3691
3579				064-101				38	064-101	X	
3580				064-011				31	064-011	X	

Footnote/Anomaly:

*Sample type such as, SP(BFB, or DFTPP), CCV, CVA, CVB, LCS, LCSD, MS, MSD, MD, CLS etc. For field samples leave as blank.
**Method name: [MMMM][S][nnn]. [MMMM] = method code, per SOP C-68. Special codes: DSL2: Diesel #2; FP30: Fuel Finger Print (C8-C30); FP40: Fuel Finger Print (C8-C40); EGLY: Ethylene Glycol; FORM: Formaldehyde; MEOH: Methyl Alcohol. [S] = APCL system code; [nnn] = initial calibration number.
† Specify the result of the injection is accepted (✓), or denied (X), or need Re-run (R) or use as a reference data (ref).
†† Lot # for CCV/Closing, Time for SP (e.g. DFTPP) must be recorded.

FILE: [CUST.DOC.GC]GC_LOG .TEX Root-File: GC_LOG_ROOT.TEX 1-Page-File:[CUST.DOC.GC]GC_LOG1.TEX
APCL form 7-101, April 6, 1996; Ver 4.1 No pencil. Use blue pen for record. Use red pen for correction. Supervisor Initial KJ

LOG-087

Applied P & Ch Laboratory
Magnolia Ave., Chino, CA 91710
(909) 590-1828 Fax (909) 590-1498

Semi-VOC Analysis Logbook

Batch # 98G1981 Starting Date: 4/28/98 Time: [illegible] Analyst: [illegible]

Type: ☐ Cal. ☐ Ini. Batch ☐ Middle ☒ Final ☐ Continue ☐ Study Datafile Path: d:\HP CHEM\1\DATA\98G1981

Maintenance: ☐ Replace Septum ☐ Replace Liner ☐ Replace Seal ☐ Cut Guid Column ☐ Cut Column ☐ Others

Sample #	Batch-No	MTX	S Type*	Sample ID	Method**	f_2	F	A-#	Datafile	OK ?†	Note††
3587	98G1981	S	Calib	ICV	8270M064	—	1	39	ICV	✓	gc7274
3588			Sp	G1981P03	DFTPP625			99	~~DFTPP625~~ G1981P03	✓	4/26 6:27PM
3589			Calib	064-010A	8270M064			40	064-010A	4/28/98	gc7216
3590				064-020A				41	064-020A	✓	
3591				064-040A				42	064-040A	✓	
3592				064-060A				43	064-060A	✓	
3593				064-080A				44	064-080A	✓	
3594				064-100A				45	064-100A	✓	
3595				ICV-A				46	ICV-A	✓	gc7274
3596			Sp	G1981P04	DFTPP625			99	G1981P04	✓	4/27 12:16PM
3597			CCV	G1981Q03	8270M064			100	G1981Q03	✓	gc7216
3598			Sample	2445-12B			0.0333	47	2445-12B	rerun ✓	
3599			Sample	2445-38B			0.0333	48	2445-38B	rerun ✓	
3600	98G2068	W	Mb	G2068K01			0.0333	49	G2068K01	✓	
3601			LCS	G2068L01			0.0333	50	G2068L01	✓	
3602			LCSD	G2068J01			0.0333	51	G2068J01	✓	
3603			Sample	2568-01			10	52	2568-01	✓	
3604				2568-02			10	53	2568-02	✓	
3605				2568-03			40	54	2568-03	✓	
3606	98G1981	S		2445-59A			0.1333	55	2445-59A	✓	
3607	98G1981	S		2445-59B			0.0333	56	2445-59B	✓	
3608	98G2068	W		2568-03A			10	57	2568-03A	✓	
3609	98G2068	W		2568-02A			10	58	2568-02A	✓	
3610											
3605											
3606											
3607											
3608											3692
3609											
3610											

Footnote/Anomaly:

Sample type such as, SP(BFB, or DFTPP), CCV, CVA, CVB, LCS, LCSD, MS, MSD, MD, CLS etc. For field samples leave as blank.
Method name: [MMMM][S][nnn]. [MMMM] = method code, per SOP C-88. Special codes: DSL2: Diesel #2; FP30: Fuel Finger Print (C8-C30); FP40: Fuel Finger Print (C8-C40); EGLY: Ethylene Glycol; FORM: Formaldehyde; MEOH: Methyl Alcohol; [S] = APCL system code; [nnn] = initial calibration number.
Specify the result of the injection is accepted (✓), or denied (X), or need Re-run (R) or use as a reference data (ref).
Lot # for CCV/Closing, Time for SP (e.g. DFTPP) must be recorded.

FILE: [CUST.DOC.GC]GC_LOG.TEX Root-File: GC_LOG_ROOT.TEX 1-Page-File: [CUST.DOC.GC]GC_LOG1.TEX
APCL form 7-101, April 6, 1996; Ver 4.1 No pencil. Use blue pen for record. Use red pen for correction. Supervisor Initial [illegible]

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Semi-VOC Analysis Logbook

Sequence # 98G1899 Starting Date: 4/17/98 Time 12:03 Pm Analyst: CRS

Seq. type: ☐ Cal. ☒ Ini. Batch ☐ Middle ☐ Final ☐ Continue ☐ Study Datafile Path: d:\HPCHEM\1\DATA\98G1899

Routine Maintenance: ☐ Replace Septum ☒ Replace Liner ☐ Replace Seal ☐ Cut Guid Column ☐ Cut Column ☐ Others

Op. #	Batch-No	MTX	S Type*	Sample ID	Method**	f_2	F	A-#	Datafile	OK ?†	Note††
3521	98G1899	W	SP	G1899P01	DFTPP625	✓	1	99	G1899P01	✓	12:03 pm 4/17/98
3522	↓	↓	calib	063-010	8270m063	↓	1	1	063-010	✓	9C7216
3523	↓	↓	↓	063-100	↓	↓	1	6	063-100	✓	↓
3524	↓	↓	↓	063-020	↓	↓	1	2	063-020	✓	↓
3525	↓	↓	↓	063-040	↓	↓	1	3	063-040	✓	↓
3526	↓	↓	↓	063-060	↓	↓	1	4	063-060	✓	↓
3527	↓	↓	↓	063-080	↓	↓	1	5	063-080	✓	↓
3528	↓	↓	↓	2CV	↓	↓	1	7	2CV	✓	9C7274
3529	↓	↓	SP	G1899P02	DFTPP625	↓	1	99	G1899P02	✓	4/17 6:01 pm
3530	↓	↓	CCV	G1899Q07	8270m063	↓	1	100	G1899Q07	✓	9C7216
3531	↓	↓	mb	G1899K01	↓	↓	0.001	8	G1899K01	✓	↓
3532	↓	↓	LCS	G1899L01	↓	↓	↓	9	G1899L01	✓	↓
3533	↓	↓	LCSd	G1899J01	↓	↓	↓	10	G1899J01	✓	↓
3534	↓	↓	Sample	2332-01	↓	↓	↓	11	2332-01	✓	↓
3535	↓	↓	↓	2332-02	↓	↓	↓	12	2332-02	✓	↓
3536	↓	↓	↓	2332-03	↓	↓	↓	13	2332-03	✓	↓
3537	↓	↓	↓	2332-04	↓	↓	↓	14	2332-04	✓	↓
3538	↓	↓	↓	2332-05	↓	↓	↓	15	2332-05	✓	↓
3539	↓	↓	↓	2332-06	↓	↓	↓	16	2332-06	✓	↓
3540	↓	↓	↓	2332-07	↓	↓	↓	17	2332-07	✓	↓
3541	↓	↓	↓	2332-08	↓	↓	↓	18	2332-08	✓	↓
3542	↓	↓	↓	2332-09	↓	↓	↓	19	2332-09	✓	↓
3543	↓	↓	↓	2332-10	↓	↓	↓	20	2332-10	✓	↓
3544	↓	↓	↓	2332-11	↓	↓	↓	21	2332-11	✓	↓
3545	↓	↓	↓	2332-12	↓	↓	↓	22	2332-12	✓	↓
3546	↓	↓	↓	2340-01	↓	↓	↓	23	2340-01	✓	↓
3547	↓	↓	closing	G1899F01	↓	↓	1	100	G1899F01	✓	9C7216
3548	↓	↓	confirm	2361-1	↓	↓	0.0167	24	2361-1	✓	↓
3549	↓	↓	confirm	2361-2	↓	✓	0.0167	25	2361-2	✓	↓
3550											

Footnote/Anomaly:

* Sample type such as, SP(BFB, or DFTPP), CCV, CVA, CVB, LCS, LCSD, MS, MSD, MD, CLS etc. For field samples leave as blank.

** Method name: [MMMM][S][nnn]. [MMMM] - method code, per SOP C-88. Special codes: DSL2: Diesel #2; FP30: Fuel Finger Print (C8-C30); FP40: Fuel Finger Print (C8-C40); EGLY: Ethylene Glycol; FORM: Formaldehyde; MEOH: Methyl Alcohol. [S] - APCL system code; [nnn] - initial calibration numb

† Specify the result of the injection is accepted (√), or denied (X), or need Re-run (R) or use as a reference data (ref).

†† Lot # for CCV/Closing, Time for SP (e.g. DFTPP) must be recorded.

3693

FILE: [CUST.DOC.GC]GC_LOG .TEX Root-File: GC_LOG_ROOT.TEX 1-Page-File:[CUST.DOC.GC]GC_LOG1.TEX
APCL form 7-101, April 6, 1996; Ver 4.1 No pencil. Use blue pen for record. Use red pen for correction.

Supervisor Initial KJ

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Semi-VOC Analysis Logbook

Sequence # 98G2092 Starting Date: 4/29/98 (4/30/90) Time 11:57am Analyst: Cass

Type: ☐ Cal. ☒ Ini. Batch ☐ Middle ☐ Final ☐ Continue ☐ Study Datafile Path: d:\hpchem\1\data\98G2092

Routine Maintenance: ☐ Replace Septum ☒ Replace Liner ☐ Replace Seal ☒ Cut Guid Column ☐ Cut Column ☐ Others

Op. #	Batch-No	MTX	S Type*	Sample ID	Method**	f_2	F	A-#	Datafile	OK ?†	Note††
3611	98G2092	S	SP	G2092P01	DFTPP625		1	99	G2092P01	✓	11:57am 4/29
3612			CCV	G2092Q01	8270M064		1	100	G2092Q01	✓	gc 7216
3613			mb	G2092K01			0.0333	1	G2092K01	✓	
3614			LCS	G2092L01			1	2	G2092L01	✓	
3615			LCSd	G2092J01				3	G2092J01	✓	
3616			MS	G2092M01				4	G2092M01	X	
3617			MSd	G2092N01				5	G2092N01	✓	
3618			Sample	2630-01				6	2630-01	✓	
3619				G2092M02				7	G2092M02	✓	
3620	98G1899	W		2332-02			0.001	8	2332-02	✓	
3621				2332-03				9	2332-03	✓	
3622				2332-04				10	2332-04	✓	
3623			SP	G2092P02	DFTPP625		1	99	G2092P02	✓	4/30/98 10:26am
3624			CCV	G2092Q02	8270M064		1	100	G2092Q02	✓	gc 7216
3625			Sample	2332-05			0.001	11	2332-05	✓	
				2332-07				12	2332-07	✓	
				2332-08				13	2332-08	✓	
3628				2332-11				14	2332-11	✓	
3629				2332-12				15	2332-12	✓	
3630			SP	G2092P03	DFTPP625		1	99	G2092P03		5/4/98 12:37pm
3631			CCV	G2092Q03	8270M064		1	100	G2092Q03		
3632			Sample	2332-12a			0.001	16	2332-12a		rerun
3633											
3634											
3635								5/1/98			
3636											
3637											
3638											
3639											
3640											

Footnote/Anomaly:

* Sample type such as, SP(BFB, or DFTPP), CCV, CVA, CVB, LCS, LCSD, MS, MSD, MD, CLS etc. For field samples leave as blank.

** Method name: [MMMM][S][nnn]. [MMMM] - method code, per SOP C-88. Special codes: DSL2: Diesel #2; FP30: Fuel Finger Print (C8-C30); FP40: Fuel Finger Print (C8-C40); EGLY: Ethylene Glycol; FORM: Formaldehyde; MEOH: Methyl Alcohol. [S] - APCL system code; [nnn] - initial calibration number.

† Specify the result of the injection is accepted (√), or denied (X), or need Re-run (R) or use as a reference data (ref).

†† Lot # for CCV/Closing, Time for SP (e.g. DFTPP) must be recorded.

3694

Supervisor Initial KJ

Applied Pollution Control Laboratory
13700 Magnolia Ave., Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL GC Standard Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Catal #/Lot #/EXT #	Solvent Name/Supplier/Catal #/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expired Date
GC-7271	8080 CCV C#:	B9 / 123	GC-7270 Sup: Cat.: Lot: EX-	Hexane Sup: Fisher Cat.: H307-4 Lot: 967831 EX- 3037	x / 100 ml = 50 ppb	12/17/97	[illegible]	[illegible]	6/17/98
GC-7272	8332 Surrogate C#: 8330m	/	Sup: Accustd Cat.: M8330-SS Lot: A7-10-391 EX- 3[illegible]	ACN Sup: Fisher Cat.: A998-4 Lot: 967648 EX- 2630	1ml × 1000ppm / 20ml = 50ppm	12/17/97	J.D	[illegible]	1/17/98
GC-7273	601/8010/8020 C#: Liquid	B9 / 124	Sup: Cat.: Lot: EX-	MeOH Sup: B&J Cat.: 232-1 Lot: B6084 EX- 3088	1ml × 200ppm / 8ml = 25ppm	12/11/97	HC	[illegible]	4/11/98
GC-7274	8270 STP C#: (2nd source)	B9 / 125	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / =	12/17/97	Eddie	[illegible]	12/17/98
GC-7275	CLP-IS (VOC) std C#:	/	CLP-PI-0.25X-MK Sup: Accustandard Cat.: Lot: 083-049 EX- 3574	MeOH Sup: B&J Cat.: 232-1 Lot: B6084 EX- 3088	0.5ml × 250ppm / 2.5ml = 50ppm	12/12/97	HC	[illegible]	12/25/97
GC-7276	CLP-VOC surrogate C#:	/	Sup: Cat.: CLP-PS-MK Lot: A6090121 EX- 3575	Sup: Cat.: Lot: EX-	0.5ml × 250ppm / 2.5ml = 50ppm	12/18/97	HC	[illegible]	12/25/97
GC-7277	CLP-VOC GAS C#:	B9 / 126	Sup: Supelco Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / 1ml = 100ppm	↓	↓	↓	↓
GC-7278	CLP-VOC GAS C#:	B9 / 127	Sup: Ultra Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / 1ml = 100ppm				
GC-7279	VOC-GAS Std C#:	/	Sup: Accustandard Cat.: M5028-R Lot: A7010268 EX- 2958	Sup: Cat.: Lot: EX-	1ml × 200ppm / 4ml = 50ppm				
GC-7280	VOC-GAS Std C#:	/	Sup: Accustandard Cat.: M-TOX/M-60113 Lot: A7080225 EX- 3454	Sup: Cat.: Lot: EX-	1ml × 200ppm / 4ml = 50ppm				
GC-7281	8330 LCS C#:	/	Sup: Accustd Cat.: M8330-R Lot: A[illegible] EX- 3896	ACN Sup: Fisher Cat.: A998-4 Lot: 973455 EX- 3335	0.5ml × 100ppm / 10ml = 5ppm	12/19/97	J.D	[illegible]	1/19/97
GC-7282	8330 MS C#:	/	Sup: Ultra Cat.: NA-M8330A Lot: Sampl K0617 EX- 2/18/98	Sup: Cat.: ↓ Lot: ↓ EX- ↓	0.5ml × 100ppm / 10ml = 5ppm	↓	↓	↓	↓

STD solution (lighter solution) expiration date must be earlier than that of Stock (parent solution)

APCL form [illegible] r. 4.0 April 10, 1995 No pencil. Use blue pen for record. Use red pen for correc[illegible]

FILE-ROOT: [CUST.DOC.GC]GC.STD.ROOT.TEX FILE: [CUST.DOC.GC]GC.STD.[illegible]

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APCL GC Standard Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Catal #/Lot #/EXT #	Solvent Name/Supplier/Catal #/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expired Date
GC-6930	C#: Picric Acid cev stock	B9 130	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x ____ = 20 ppm	9/24/97	TC	[illegible]	10/26/97
~~GC-6931~~	~~TK 9/26/97 CLP BNA C#: 25 ppm~~	~~1~~	~~GC 5875 Sup: GC 6250 IS Cat.: Lot: EX- 10 ml~~	~~CH2Cl2 Sup: Fischer Cat.: L299-4 Lot: BP437 EX-~~	~~0.125 ml x 200 ppm / 1.0 ml = 25 ppm~~	~~9/26/97~~	~~TK~~		~~10/5/97~~
GC-6932	CLP VOC IS C#:	1	Sup: Accustandard Cat.: CLP-PP-A255X Lot: 074-980 EX- 2472	MeOH Sup: BDH Cat.: 232-1 Lot: B0084 EX- 3088	0.2 ml x 250 ppm / 1 ml = 50 ppm	9/26/97	TC	[illegible]	10/3/97
GC-6933	CLP VOC Surrogate C#:	1	Sup: Accustandard Cat.: CLP-K2-PAK Lot: 102-196 EX- 2473	Sup: Cat.: Lot: EX-	0.2 ml x 250 ppm / 1 ml = 50 ppm	9/26/97	TC	[illegible]	10/3/97
GC-6934	CLP BNA C#: 25 ppm	1	Sup: GC 5875 Cat.: Lot: EX- 10 ml; Sup: GC 6250 EX- 10 ml TK 10/18/97	CH2Cl2 Sup: Fisher Cat.: L299-4 Lot: BP437 EX-	0.125 ml x 200 ppm / 1.0 ml = 25 ppm	9/29/97	TK	[illegible]	10/5/97
GC-6935	8310 MS Spiking C#:	1	Sup: Supelco Cat.: 4-9156 Lot: LA-64303 EX- 3433	ACN Sup: Fisher Cat.: A998-4 Lot: 971648 EX- 3434	1 ml x 20 ppm / 40 = 500 ppb	9/30/97	TC	[illegible]	9/30/98
GC-6936	Picric Acid std stock C#:	B9 131	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x ____ =	↓	↓	[illegible]	10/3/97
GC-6937	4,6-Dinitro-o-cresol stock C#:	1	Sup: Aldrich Cat.: 19,710-6 Lot: 32125DW EX-	CH2Cl2 Sup: Fisher Cat.: L299-4 Lot: BP437 EX-	~~Assay~~ x 0.90 / 10 mL = 5 ~~10,000 ppm~~	10/2/97	TC	[illegible]	10/3/98
GC-6938	Benzoic Acid stock C#:	1	Sup: Aldrich Cat.: 24,238-1 Lot: 27705KB EX- 3405	Sup: Cat.: Lot: EX-	0.5 g x ____ / 10 mL = 50,000 ppm				
GC-6939	2-Nitroaniline stock C#:	1	Sup: Aldrich Cat.: N978-0 Lot: 04119TQ EX- 3407	Sup: Cat.: Lot: EX-	0.5 g x ____ / 10 mL = 50,000 ppm				
GC-6940	3-Nitroaniline stock C#:	1	Sup: Aldrich Cat.: N982-9 Lot: 05720TK EX- 3408	Sup: Cat.: Lot: EX-	0.5 g x ____ / 10 mL = 50,000 ppm				
GC-6941	4-Nitroaniline C#:	1	Sup: Aldrich Cat.: N98-3 Lot: 07216KR EX- 3406	Sup: Cat.: Lot: EX-	0.5 g x ____ / 10 mL = 50,000 ppm	↓	↓	↓	↓

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STD solution (daughter solution) expiration date must be earlier than that of Stock (parent solution).

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GCSTD-145

APCL GC Standard Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Catal #/Lot #/EXT #	Solvent Name/Supplier/Catal #/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expired Date
GC-6942	4-chloroaniline stock	1	Sup: Aldrich Cat.: C2,241-5 Lot: 1021482 EX- 3411	CH_2Cl_2 Sup: Fisher Cat.: L-299-4 Lot: BP437 EX-	0.5g x / 10mL = 50,000ppm	10/2/97	JL	KJ	10/2/97
GC-6943	Carbazole stock	1	Sup: Acros Cat.: 40395-028 Lot: A0080234 EX- 2173	CH_2Cl_2 Sup: Cat.: L-299-4 Lot: BP437 EX-	0.5g x / 10mL = 50,000ppm				
GC-6944	N-nitrosodiphenylamine stock	1	Sup: Sigma Cat.: N5882 Lot: 90H2605 EX- 3455	Sup: Cat.: Lot: EX-	0.5g x / 10mL = 50,000ppm				
GC-6945	2-Aminonaphthalene stock	1	Sup: Aldrich Cat.: A6,640-5 Lot: 03339BHQ EX- 3454	Sup: Cat.: Lot: EX-	0.5g x / 10mL = 50,000ppm				
GC-6946	1-Aminonaphthalene stock	1	Sup: Aldrich Cat.: A6,619-1 Lot: 2048210 EX- 3453	Sup: Cat.: Lot: EX-	0.5g x / 10mL = 50,000ppm				
GC-6947	Benzidine stock	1	Sup: chem Serve Cat.: F5 Lot: 56-147B EX-	Sup: Cat.: Lot: EX-	0.5g x / 10mL = 50,000ppm				
GC-6948	3,3'-Dichlorobenzidine stock	1	Sup: chem Serve Cat.: F28 Lot: 153-137B EX- 2408	Sup: Cat.: Lot: EX-	0.5g x / 10mL = 50,000ppm				
GC-6949	VOC gas std	1	Sup: Accustandard Cat.: M5028-R Lot: A7010268 EX- 2958	MeOH Sup: B & J Cat.: 232-1 Lot: B0084 EX- 3088	1ml x 250ppm / 4ml = 50ppm	10/3/97	HL	KJ	10/10/97
GC-6950	VOC gas std	1	Sup: Ultra Cat.: DWM-584-1 Lot: L0503 EX- 3219	Sup: Cat.: Lot: EX-	1ml x 250ppm / 4ml = 50ppm	10/2/97			
GC-6951	Clp-VOC GAS std	89/32	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / 1ml = 100ppm	10/3/97			
GC-6952	Clp-VOC GAS std	89/33	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / 1ml = 100ppm	10/3/97			
GC-6953	VOC Matrix Spike	1	Sup: Accustandard Cat.: CLP-003-R-10X Lot: 086416 EX- 2957	Sup: Cat.: Lot: EX-	1ml x 2500ppm / 50ml = 50ppm	10/3/97	HC		3/1/98

STD solutio[illegible]ter solution) expiration date must be earlier than that of Stock (parent solution)

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GCSTD-018

APCL GC Standard Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Catal #/Lot #/EXT #	Solvent Name/Supplier/Catal #/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expired Date
GC-7214	C#: 8270 add 3	B9/102	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x ___ = 1000ppm	12/1/97	[illegible]	[illegible]	12/1/98
GC-7215	C#: 8270 LCS (full spike)	B9/104	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x ___ =	↓	↓	↓	↓
GC-7216	C#: 8270 std	B9/105	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x ___ =	↓	↓	↓	↓
GC-7217	C#: IS/8240/8260	/	Sup: Ultra Scientific Cat.: STM-520 Lot: K-0244 EX- 3021	MeOH Sup: B & J Cat.: 232-1 Lot: B0084 EX- 3088	0.8ml × 2500ppm / 40 ml = 50ppm	12/2/97	HC	[illegible]	6/2/98
~~GC-7218~~	~~Surrogate C#: 8240/8260~~	~~/~~	~~Sup: Ultra Scientific Cat.: STM-520 Lot: K-0244 EX- 3021~~	~~MeOH Sup: B & J Cat.: 232-1 Lot: B0084 EX- 3088~~	~~0.8ml × 2500ppm / 40 ml = 50ppm~~	~~12/2/97~~	~~Void HC~~	~~HC~~	~~12/2/97 6/2/98~~
GC-7218	Surrogate C#: 8240/8260	/	Sup: Ultra Scientific Cat.: STM-530 Lot: K0245 EX- 3022	MeOH Sup: B & J Cat.: 232-1 Lot: B0084 EX- 3088	0.8ml × 2500ppm / 40 ml = 50ppm	12/2/97	HC	[illegible]	6/2/98
GC-7219	Voc C#: Liquid - Std	B9/106	Sup: Accustandard Cat.: M-502A-R-PAK Lot: A7030442 EX- 3320	↓ Sup: Cat.: Lot: EX-	x 2000ppm / 4 ml = 50ppm	12/2/97	HC	[illegible]	6/2/98
GC-7220	Voc C#: Liquid - Std	B9/107	Sup: Accustandard Cat.: M-502A-R-10X Lot: A7040270 EX- 3177	↓ Sup: Cat.: Lot: EX-	x 2000ppm / 40 ml = 50ppm	↓	↓	↓	↓
GC-7221	CLP-BNA C#: 25ppm	/	GC5875 Sup: IS GC6230 10µm Cat.: Lot: EX-	CH_2Cl_2 Sup: Fisher Cat.: L299-4 Lot: BP437 EX-	125 × 200 / 1000 = 25ppm	12/2/97	Eddie	[illegible]	12/9/97
GC-7222	CLP-SVOC C#: LCS	B9/108	Sup: Cat.: Lot: EX-	MeOH Sup: B & J Cat.: 230-4 Lot: BP939 EX- 3431	x ___ = 50/75ppm	12/3/97	Jeff	[illegible]	6/3/98
✓ GC-7223	DIESEL STOCK STAN. STOCK ~~AIR FORCE~~	A4/007	Sup: Cat.: Lot: EX-	See A4/007.	x ___ = 50000 ppm	12/3/97	James	[illegible]	12/3/98
✓ GC-7224	C28 C#: Stoc.	A4/008	Sup: Cat.: Lot: EX-	See A4/008	x ___ = 5000 ppm	12/3/97	James	[illegible]	12/3/98

STD solution (daughter solution) expiration date must be earlier than that of Stock (parent solution).

APCL form 7-102 Ver. 4.0 April 10, 1995 No pencil. Use blue pen for record. Use red pen for correction.

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APCL GC Standard Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Catal #/Lot #/EXT #	Solvent Name/Supplier/Catal #/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expired Date
GC-7202	CLP-VOC GAS C#:	89/99	Sup: Ultra Cat.: Lot: EX-	MeOH Sup: B&J Cat.: 232-1 Lot: BC274 EX- 3088	x / 1ml = 100ppm	11/26/97	HC	[illegible]	12/1/97
GC-7203	~~CLP-Pes 8080 IS~~ C#: 8081 IS	1	Dibutylchlorendate Sup: Accustand Cat.: CLP-Pes-A Lot: 016-098 EX- 3524	Hexane Sup: Fisher Cat.: H3074 Lot: 267831 EX- 3057	1ml x 200ppm / 20ml = 10ppm	11/26/97	RL	[illegible]	11/1/98
GC-7204	CLP-BNA 25ppm C#:	1	GC5875 Sup: IS GC6230 Cat.: Lot: EX-	Cobalt Sup: Fisher Cat.: L299-4 Lot: 138457 EX-	125 x 200 / 1000 = 25ppm	11/26/97	[illegible]	[illegible]	12/2/97
GC-7205	C#: 4-Nitrophenol	1	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / =	12/1/97	TC	[illegible]	10/13/97
GC-7206	C#: 8270 Add 1	A4/ob ~~89/100~~ TC 12/1/97	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / =	↓	↓	↓	↓
GC-7207	C#: 8270 Std (concentrated)	89/101	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / =	↓	↓	↓	↓
GC-7208	VOC C#: GAS Std	1	Sup: Accustandard Cat.: M5028-R Lot: A7010268 EX- 2958	MeOH Sup: B&J Cat.: 232-1 Lot: BC274 EX- 3088	1ml x 200ppm / 4ml = 50ppm	12/1/97	HC	[illegible]	12/8/97
GC-7209	VOC C#: GAS Std	1	L0503 Sup: Ultra Cat.: 7WM Lot: 584-1 EX- 3219	↓ Sup: Cat.: Lot: EX-	1ml x 200ppm / 4ml = 50ppm	↓	↓	↓	12/8/97
GC-7210	1-Methyl-2-Pyrrolidinone C#:	1	Sup: Aldrich Cat.: 32863-4 Lot: 03258HR EX- 2735	Sup: Cat.: Lot: EX-	0.104 x / 10ml = 10,000 ppm TC 12/1/97	12/1/97	TC	[illegible]	12/1/98
~~GC-7211~~	~~C#: Hydroquinone~~	~~1~~	Sup: Aldrich Cat.: 24,012-5 Lot: 03328PW EX- TC 12/1/97	Sup: Cat.: Lot: EX-	x / =	↓	↓	[illegible]	↓
GC-7212	C#: 8270 Add 2	89/100	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 1000ppm	↓	↓	↓	↓
GC-7213	C#: 8270 Add 3	1	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / =	↓	↓	↓	↓

STD solution (daughter solution) expiration date must be earlier than that of Stock (parent solution).

APCL form 7-102[illegible] [illegible].0 April 10, 1995 No pencil. Use blue pen for record. Use red pen for correctio[illegible]

FILE-ROOT: [illegible]OC.GC]GC.STD_ROOT.TEX FILE: [CUST.DOC.GC]GC.STD_LOGBOOK.TEX

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APCL GC Standard Solution Logbook

Lot #	Description	Ref. Vol/Page	Stock Solution Name/Supplier/Catal #/Lot #/EXT #	Solvent Name/Supplier/Catal #/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{stock} + V_{solvent}} = C_{new}$	Prepared Date	Prepared by	Verified by	Expired Date
GC-7506	Tributyltin Chloride (TBTCl) C#:	1	Sup: Aldrich Cat.: T5020-2 Lot: 11421 EY EX-	Hexane Sup: Fisher Cat.: H307-4 Lot: 967831 EX-	0.0427 (g) / 40 ml = 1067 ppm	2/18/98	Jeff	KJ	2/18/99
GC-7507	Dibutyltin dichloride (DBTCl)	1	Sup: Alfa Cat.: 14116 Lot: L24D01 EX- 2868	↓ Sup: Cat.: Lot: EX-	0.0586 g / 40 ml = 1465 ppm	↓	↓	↓	↓
GC-7508	Monobutyltin trichloride MBTCl C#:	1	Sup: Alfa Cat.: 71125 Lot: E25G13 EX- 2876	↓ Sup: Cat.: Lot: EX-	0.0663 g / 40 ml = 1658 ppm	↓	↓	↓	↓
GC-7509	GPC Calibration Solution C#:	A4/23	Sup: Cat.: Lot: EX-	Acetone Sup: Fisher Cat.: A929-4 Lot: 972934 EX-	x / =	2/18/98	Jeff	ZC	8/18/98
GC-7510	Tetra n-butyltin Stock C#:	1	Sup: Alfa Cat.: 14115 Lot: I05G18 EX- 2899	Hexane Sup: Fisher Cat.: H307-4 Lot: 967831 EX-	0.0406 g / 40 ml = 1015 ppm	2/18/98	Jeff	KJ	2/18/99
GC-7511	Organotin Stock C#:	B10/54	Sup: Cat.: Lot: EX-	↓ Sup: Cat.: Lot: EX-	x / = 100 ppm	↓	↓	↓	↓
GC-7512	8141 Std. C#:	1	GC 7482 Sup: Cat.: Lot: EX-	Acetone Sup: Fisher Cat.: A929-4 Lot: 972934 EX-	1 ml × 10^4 ppm / 500 ml = 20 ppm	2/18/98	Jeff		8/18/98
GC-7513	Organotin Std. (TP3TCl) C#:	B10/1	GC7505 Sup: Cat.: Lot: EX-	Hexane Sup: Fisher Cat.: H307-4 Lot: 967831 EX-	3.14 ml × (1455 × 0.875) ppm / 40 ml = 100 ppm	2/18/98	Jeff	KJ	2/18/99
GC-7514	Organotin IS Second Stock C#:	1	GC7504 Sup: Cat.: Lot: EX-	Hexane Sup: Fisher Cat.: H307-4 Lot: 967831 EX-	3.56 ml (1245 × 0.903) ppm / 40 ml = 100 ppm	↓	Jeff	KJ	↓
GC-7515	Tin STD 1 C#:	B10/55	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 50 ppb	2/18/98	↓	↓	8/28/98
GC-7516	Tin STD 2 C#:	B10/56	Sup: Cat.: Lot: EX-	Sup: Cat.: Lot: EX-	x / = 100 ppb	↓	↓	↓	↓
GC-7517	Tin STD 3 C#:	B10/57	Sup: Cat.: Lot: EX-	↓ Sup: Cat.: Lot: EX-	x / = 250 ppb	↓	↓	↓	↓

STD solution (daughter solution) expiration date must be earlier than that of Stock (parent solution).

APCL form 7-102 Ver. 4.0 April 10, 1995 No pencil. Use blue pen for record. Use red pen for correction.

FILE ROOT: [CUST.DOC.GC]GC.STD.ROOT.TEX FILE: [CUST.DOC.GC]GC.STD.LOGBOOK.TEX

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GCSTDPRP2-102

GC STD Preparation-B

STD Title 8270 add 3 APCL Cat. #: GC 7213 Lot #: _____ Volume (V) 10 mL
Solvent CH_2Cl_2 Suppler Fisher Catal. # ~~A95204~~ D151-4 TL 12/1/97 Lot # ~~97~~ 964900 TL 12/1/97
Prprd by TL Verified by _____ Peprd date: 12/1/97 Expire date: 12/1/98

#	Stock Solution	Supplier	Cat # /Lot #	Volume	$\frac{V_{stock} \times C_{stock}}{V_{total}} = C_{dil}$
1	1-Aminonaphthalene	APCL	C-#: L-#: GC6946 EX-	2 mL	$\frac{2mL \times 50{,}000ppm}{10mL} = 10000ppm$
2	2-Aminonaphthalene	↓	C-#: L-#: GC6945 EX-	2 mL	$\frac{2mL \times 50{,}000ppm}{10mL} = 10000ppm$
3			C-#: L-#: EX-		___ x ___ =
4			C-#: L-#: EX-		___ x ___ =
5			C-#: L-#: EX-		___ x ___ =
6			C-#: L-#: EX-		___ x ___ =
7			C-#: L-#: EX-		___ x ___ =
8			C-#: L-#: EX-		___ x ___ =
8			C-#: L-#: EX-		___ x ___ =
10			C-#: L-#: EX-	12/1/97	___ x ___ =
11			C-#: L-#: EX-		___ x ___ =
12			C-#: L-#: EX-		___ x ___ =
13			C-#: L-#: EX-		___ x ___ =
14			C-#: L-#: EX-		___ x ___ =
15			C-#: L-#: EX-		___ x ___ =
16			C-#: L-#: EX-		___ x ___ =
17			C-#: L-#: EX-		___ x ___ =
18			C-#: L-#: EX-		___ x ___ =
			Subtotal volume of stock solutions	4 mL	
			Solvent balaced:	6 mL	3701
			Add solvent to :	10 mL	

APCL form 7-112 April 10, 1995 Ver 4.0 No pencil. Use blue pen for record. Use red pen for correction.

ROOT-FILE:[APCL.DOC.GC]GCSTDPRP2_ROOT.TEX FILE:[APCL.DOC.GC]GCSTDPRP2 .TEX

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Tel: (909) 590-1828 Fax: (909) 590-1498

GCSTDPRP2-10

GC STD Preparation-B

STD Title 8270 Std | APCL Cat. #: GC 7216 | Lot #: | Volume (V) 20 mL
Solvent CH_2Cl_2 | Suppler Fisher | Catal. # D151-4 | Lot # 964900
Prprd by TL | Verified by | Peprd date: 12/1/97 | Expire date: 10/3/98

#	Stock Solution	Supplier	Cat # /Lot #	Volume	$\frac{V_{stock} \times C_{stock}}{V_{total}} = C_{dil}$
1	Base/Neutral Composite (6 compds)	Accustd	C-#: CLP-HC-BN-R L-#: A7080430 EX-	1.0 ml	$\frac{1.0\,ml \times 2000\,ppm}{20\,ml} = 100\,ppm$
2	Benzidine & 3,3'-Dichlorobenzidine (2 compds)	↓	C-#: Z-014F L-#: A7030485 EX-	↓	$\frac{1.0\,ml \times 7000\,ppm}{20\,ml} = 100\,ppm$
3	composite Mix #2 (19 compds)	↓	C-#: Z-014G-R L-#: A7040040 EX-	↓	$\frac{1.0\,ml \times 2000\,ppm}{20\,ml} = 100\,ppm$
4	Acid composite Mix (19 compds)	↓	C-#: CLP-HC-A-R L-#: A6090401 EX-	↓	$\frac{1.0\,ml \times 2000\,ppm}{20\,ml} = 100\,ppm$
5	composite Mix #3A (19 compds)	↓	C-#: CLP-HC-X1 L-#: PB6-334 EX-	↓	$\frac{1.0\,ml \times 2000\,ppm}{20\,ml} = 100\,ppm$
6	S-V Surrogate Mix	↓	C-#: CLP-031-R2 L-#: 016-102 EX-	↓	$\frac{1.0\,ml \times 2000\,ppm}{20\,ml} = 100\,ppm$
7	8270 Add1 (3 compds)	APCL	C-#: L-#: GC7206 EX-	0.8 ml	$\frac{0.8\,ml \times 10000\,ppm}{20\,ml} = 400\,ppm$
8	1-Methyl-2-pyrrolidinone	↓	C-#: L-#: EX-	0.2 ml TL 12/1/97	$\frac{\times}{20\,ml} = 100\,ppm$
8	Hydroquinone	Aldrich	C-#: 24012-5 L-#: 17116CG EX-	0.0021 g	$\frac{0.0021\,g \times 10^6}{20\,ml} = 100\,ppm$
10	Carbazol	APCL	C-#: L-#: GC 6943 EX-	1.0 ml	$\frac{1.0\,ml \times 10000}{20\,ml} = 500\,ppm$
11	8270 Add2 (2 compds)	↓	C-#: L-#: GC7212 EX-	0.8 ml	$\frac{0.8\,ml \times 10000\,ppm}{20\,ml} = 400\,ppm$
12	8270 Add3 (2 compds)	↓	C-#: L-#: GC7213 EX-	↓	$\frac{0.8\,ml \times 10000\,ppm}{20\,ml} = 400\,ppm$
13	8270 Add4 (3 compds)	↓	C-#: L-#: GC7214 EX-	↓	$\frac{0.8\,ml \times 10000\,ppm}{20\,ml} = 400\,ppm$
14	4-Nitroaniline	↓	C-#: L-#: GC 6941 EX-	↓	$\frac{0.8\,ml \times 10000\,ppm}{20\,ml} = 400\,ppm$
15	Benzoic Acid	↓	C-#: L-#: GC6938 EX-	0.16 ml	$\frac{0.16\,ml \times 50000\,ppm}{20\,ml} = 400\,ppm$
16	4,6-Dinitrocresol	↓	C-#: L-#: GC 6937 EX-	↓	$\frac{0.16\,ml \times 50000\,ppm}{20\,ml} = 400\,ppm$
17	N-Nitrosodi-phenylamine	↓	C-#: L-#: GC 6944 EX-	↓	$\frac{0.16\,ml \times 50000\,ppm}{20\,ml} = 400\,ppm$
18	4-Nitrophenol	↓	C-#: L-#: GC 7205 EX-	↓	$\frac{0.16\,ml \times 50000\,ppm}{20\,ml} = 400\,ppm$
	Subtotal volume of stock solutions			11.84 ml	
	Solvent balaced:			8.16 ml	3702
	Add solvent to :			20.00 ml	

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ROOT-FILE:[APCL.DOC.GC]GCSTDPRP2_ROOT.TEX FILE:[APCL.DOC.GC]GCSTDPRP2 .TEX

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

GCSTDPRP1-023

GC STD Preparation-A

STD Title GPC-Calibration APCL-Cat #: _____ APCL-LOT #: GC 7/09 Rep. Conc. (c): _____ μg/mL (ppm)

Solvent Acetone Solv. supplier Fisher Solv. Lot # 072234 STD Volume (V) 100 mL

i	Compound	B.P.	d_i	Supplier	Lot #	η_i	M_i	f_i	v_i	w_i	c_i, μg/mL
1	Corn oil (25 mg/mL)									12.5 g	
2	bis(2-Ethylhexyl) phthalate (0.5 mg/mL)			Chem Service	195-45B					0.25 g	
3	Methoxychlor (0.1 mg/mL)			Aldrich	Aldrich 12607 TC					0.05 g	
4	Perylene (0.02 mg/mL)			Aldrich	P1120-U					0.01 g	
5	Sulfur (0.08 mg/mL)			EM Science	SX1225-1					0.04 g	
6											
7											
8											
9											
10											
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16											
17											
18											
19											
20											
21											
22											
23											
24											
25											

Notation: d_i – density (for liquid only), in g/mL; η_i – assay (for all reagent); M_i – Mol. weight (for gas compound only);

f_i – concentration weight factor, if the conc. is equal to Rep. cont. $f_i = 1$;

v_i – volume should be used, in μL for liquid and in mL for gas; w_i – weight should be used, in gram (for soilid only).

Basic Formulae

$$v_i(\mu L) = 0.001\,\frac{V\,f_i\,c}{d_i\eta_i}, \quad c_i(\mu g/mL) = 1000\,\frac{v_i\,d_i\,\eta_i}{V}. \qquad \text{for Liquid compound}$$

$$v_i(mL) = 0.02445\,\frac{V\,f_i\,c}{M_i\eta_i}, \quad c_i(\mu g/mL) = 40.90\,\frac{v_i\,M_i\,\eta_i}{V}. \qquad \text{for Gas compound}$$

$$w_i(g) = \frac{V\,f_i\,c}{\eta_i} \times 10^{-6}, \quad c_i(\mu g/mL) = \frac{w_i\,\eta_i}{V} \times 10^{6}. \qquad \text{for Solid compound}$$

3703

Cald. by _____ Date _____ Checked by _____ Date _____

Prepared by Jeff Date 2/18/98 Analyzed by _____ Date _____

Approved by _____ Date _____ Expire date 8/18/98

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Applied P & Ch Laboratory
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Tel: (909) 590-1828 Fax: (909) 590-1498

GCSTDPRP2-100

GC STD Preparation-B

STD Title 8270 Add 2 APCL Cat. #: GC 7266 12 12/1/97 Lot #: _____ Volume (V) 10 mL

Solvent Chel-2 Suppler Fisher Catal. # D151-4 ~~[illegible]~~ 12/1/97 Lot # 964900 12/1/97

Prprd by [illegible] Verified by _____ Peprd date: 12/1/97 Expire date: 12/1/98

#	Stock Solution	Supplier	Cat # /Lot #	Volume	$\frac{V_{stock} \times C_{stock}}{V_{total}} = C_{dil}$
1	Benzidine	APCL	C-#: L-#: GC 6947 EX-	2 ml	$\frac{2\,ml \times 50{,}000\,ppm}{10\,ml} = 10000\,ppm$
2	3,3'-Dichlorobenzidine		C-#: L-#: GC 6948 EX-	2 ml	$\frac{2\,ml \times 50{,}000\,ppm}{10\,ml} = 10000\,ppm$
3			C-#: L-#: EX-		x =
4			C-#: L-#: EX-		x =
5			C-#: L-#: EX-		x =
6			C-#: L-#: EX-		x =
7			C-#: L-#: EX-		x =
8			C-#: L-#: EX-		x =
9			C-#: L-#: EX-	12/1/97	x =
10			C-#: L-#: EX-		x =
11			C-#: L-#: EX-		x =
12			C-#: L-#: EX-		x =
13			C-#: L-#: EX-		x =
14			C-#: L-#: EX-		x =
15			C-#: L-#: EX-		x =
16			C-#: L-#: EX-		x =
17			C-#: L-#: EX-		x =
18			C-#: L-#: EX-		x =
			Subtotal volume of stock solutions	4 ml	
			Solvent balaced:	6 ml	3701
			Add solvent to :	10 ml	

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Applied P & Ch Laboratory
'0 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

GCSTDPRP2-146

GC STD Preparation-B

S... Title 8270 MS APCL Cat. #: GC7364 Lot #: _____ Volume (V) 200.0 mL

Instrument Mech Supplier B + J Catal. # 230-4 Lot # BQ 112

Prprd by Jeff Verified by _____ Peprd date: 1/15/98 Expire date: 7/15/98

#	Stock Solution	Supplier	Cat # /Lot #	Volume	$\frac{V_{stock} \times C_{stock}}{V_{total}} = C_{dil}$
1	CLP-007A/CLP-007A	ACCUSTD	C-#: L-#: A708002-3 EX- 3470	10.0 ml	$\frac{1000 \text{ ppm} \times 10.0 \text{ ml}}{200 \text{ ml}} = 50$ ppm
2	CLP-007B	↓	C-#: L-#: A7070120 EX- 3470	10.0 ml	$\frac{2000 \text{ ppm} \times 10.0 \text{ ml}}{200 \text{ ml}} = 100$ ppm
1	3,3 dichlorobenzidine GC6454	APCL	C-#: L-#: GC6454 EX- 6/13/98	1.0 ml	$\frac{10000 \text{ ppm} \times 1.0 \text{ ml}}{200 \text{ ml}} = 50$ ppm
			C-#: L-#: EX-		× _____ =
5			C-#: L-#: EX-		× _____ =
			C-#: L-#: EX-		× _____ =
			C-#: L-#: EX-		× _____ =
8			C-#: L-#: EX-		× _____ =
			C-#: L-#: EX-		× _____ =
			C-#: L-#: EX-		× _____ =
			C-#: L-#: 1/15 EX- 98		× _____ =
			C-#: L-#: EX-		× _____ =
			C-#: L-#: Jeff EX-		× _____ =
			C-#: L-#: EX-		× _____ =
			C-#: L-#: EX-		× _____ =
			C-#: L-#: EX-		× _____ =
			C-#: L-#: EX-		× _____ =
			C-#: L-#: EX-		× _____ =
			Subtotal volume of stock solutions	21.0 ml	
			Solvent balaced:	179.0 ml	3705
			Add solvent to :	200.0 ml	

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GCSTDPRP2-145

GC STD Preparation-B

STD Title 8270 LCS APCL Cat. #: GC 7363 Lot #: _____ Volume (V) 200.0 mL

Solvent MeOH Supplier B & J Catal. # 230-4 Lot # BQ 112

Prprd by Jeff Verified by _____ Peprd date: 1/15/98 Expire date: 7/15/98

#	Stock Solution	Supplier	Cat # /Lot #	Volume	$\frac{V_{stock} \times C_{stock}}{V_{total}} = C_{dil}$
1	CLP-300N	ULTRA	C-#: L-#: L-1195 EX- 7602	10.0 ml	$\frac{1000 \text{ ppm} \times 10.0 \text{ ml}}{200 \text{ ml}} = 50$ ppm
2	CLP-400N	↓	C-#: L-#: L-0798 EX- 7601	10.0 ml	$\frac{2000 \text{ ppm} \times 10.0 \text{ ml}}{200 \text{ ml}} = 100$ ppm
3	3,3dichlorobenzidine GC 6454	APCL	C-#: L-#: GC 6454 EX- 6/12/98	1.0 ml	$\frac{10000 \text{ ppm} \times 1.0}{200 \text{ ml}} = 50$ ppm
4			C-#: L-#: EX-		x _____ =
5			C-#: L-#: EX-		x _____ =
6			C-#: L-#: EX-		x _____ =
7			C-#: L-#: EX-		x _____ =
8			C-#: L-#: EX-		x _____ =
9			C-#: L-#: EX-		x _____ =
10			C-#: L-#: EX-		x _____ =
11			C-#: L-#: 1/15/98 EX-		x _____ =
12			C-#: L-#: EX-		x _____ =
13			C-#: L-#: EX-		x _____ =
14		Jeff	C-#: L-#: EX-		x _____ =
15			C-#: L-#: EX-		x _____ =
16			C-#: L-#: EX-		x _____ =
17			C-#: L-#: EX-		x _____ =
18			C-#: L-#: EX-		x _____ =
			Subtotal volume of stock solutions	21.0 ml	
			Solvent balaced:	179.0 ml	370E
			Add solvent to :	200.0 ml	

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Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

GCSTDPRP2-125

GC STD Preparation-B

STD Title 8270 STD (2nd source) APCL Cat. #: GC 7274 Lot #: GC 7274 Volume (V) 20 mL

Solvent CH_2Cl_2 Suppler Fisher Catal. # 0151-4 Lot # 964900

Prprd by Tuddle Verified by [signature] Peprd date: 12/17/97 Expire date: 12/17/98

#	Stock Solution	Supplier	Cat # /Lot #	Volume	$\frac{V_{stock} \times C_{stock}}{V_{total}} = C_{dil}$
1	Base/Neutral Composite	Accustandard	C-#: CLP-HC-BN-R L-#: A7090331 EX- 1/1/99	1.0 ml	$\frac{1.0ml \times 2000ppm}{20ml} = 100ppm$
2	Benzidine & 3,3'-Dichlorobenzidine	↓	C-#: Z-014F L-#: A7050323 EX- 10/1/98	↓	$\frac{1.0ml \times 2000ppm}{20ml} = 100ppm$
3	Composite Mix #2	↓	C-#: Z-014E-R L-#: A7100410 EX- 1/1/99	↓	$\frac{1.0ml \times 2000ppm}{20ml} = 100ppm$
4	Acid composite Mix	↓	C-#: CLP-HC-A-R L-#: A7090404 EX- 1/1/99	↓	$\frac{1.0ml \times 2000ppm}{20ml} = 100ppm$
5	Composite Mix #3A	↓	C-#: CLP-HC-X1 L-#: A7090217 EX- 1/1/99	↓	$\frac{1.0ml \times 2000ppm}{20ml} = 100ppm$
6	S-V Surrogate Mix	↓	C-#: CLP-031-R2 L-#: 016-102 EX- 1/1/99	↓	$\frac{1.0ml \times 2000ppm}{20ml} = 100ppm$
7	8270 Add 1	APCL	C-#: L-#: GC 7206 EX-	0.8 ml	$\frac{0.8ml \times 10,000ppm}{20ml} = 400ppm$
8	1-Methyl-2-pyrrolidinone	APCL	C-#: L-#: GC7219 EX-	0.2 ml	$\frac{0.2ml \times 10,000ppm}{20ml} = 100ppm$
8	Hydroquinone	Aldrich	C-#: 24012-5 L-#: AX03328PW EX-	.0021g	$\frac{.0021g \times}{20ml} = 100ppm$
10	Carbazol	APCL	C-#: L-#: GC 6943 EX-	1.0 ml	$\frac{1.0ml \times 10,000}{20ml} = 500ppm$
11	8270 Add 2	↓	C-#: L-#: GC7212 EX-	0.8 ml	$\frac{0.8ml \times 10,000ppm}{20ml} = 400ppm$
12	8270 Add 3	↓	C-#: L-#: GC 7213 EX-	0.8 ml	$\frac{0.8ml \times 10,000ppm}{20ml} = 400ppm$
13	8270 Add 4	↓	C-#: L-#: GC 7214 EX-	0.8 ml	$\frac{0.8ml \times 10,000ppm}{20ml} = 400ppm$
14	4-Nitroaniline	↓	C-#: L-#: GC 6941 EX-	0.8 ml	$\frac{0.8ml \times 10,000ppm}{20ml} = 400ppm$
15	Benzoic Acid	↓	C-#: L-#: GC 6938 EX-	0.16 ml	$\frac{0.16ml \times 50,000}{20ml} = 400ppm$
16	4,6-Dinitrocresol	↓	C-#: L-#: GC 6937 EX-	0.16 ml	$\frac{0.16ml \times 50,000}{20ml} = 400ppm$
17	N-Nitrosodiphenyl amine	↓	C-#: L-#: GC 6944 EX-	0.16 ml	$\frac{0.16ml \times 50,000}{20ml} = 400ppm$
18	4-Nitrophenol	↓	C-#: L-#: GC7205 EX-	0.16 ml	$\frac{0.16ml \times 50,000}{20ml} = 400ppm$
			Subtotal volume of stock solutions	11.84 ml	
			Solvent balaced:	8.16 ml	
			Add solvent to :	20.00 ml	

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Level C Data Package Deliverables

METALS

Applied P & Ch Laboratory

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	SDG Number:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-1	Received Date:	04/08/98
Sample ID:	DMW-5	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
Mercury, Hg	7439-97-6	μg/L	0.5	<0.095	U	CV		98M1341D	04/14/98	04/14/98	1	7470

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	SDG Number:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-2	Received Date:	04/08/98
Sample ID:	ES-6D	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
Mercury, Hg	7439-97-6	$\mu g/L$	0.5	<0.095	U	CV		98M1341D	04/14/98	04/14/98	1	7470

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	SDG Number:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-3	Received Date:	04/08/98
Sample ID:	ES-7D	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
Mercury, Hg	7439-97-6	µg/L	0.5	<0.095	U	CV		98M1341D	04/14/98	04/14/98	1	7470

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	SDG Number:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-4	Received Date:	04/08/98
Sample ID:	ES-7S	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
Mercury, Hg	7439-97-6	μg/L	0.5	<0.095	U	CV		98M1341D	04/14/98	04/14/98	1	7470

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	SDG Number:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-5	Received Date:	04/08/98
Sample ID:	**Field Blank**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
Mercury, Hg	7439-97-6	$\mu g/L$	0.5	<0.095	U	CV		98M1341D	04/14/98	04/14/98	1	7470

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	SDG Number:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-6	Received Date:	04/08/98
Sample ID:	ES-11D	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
Mercury, Hg	7439-97-6	$\mu g/L$	0.5	<0.095	U	CV		98M1341D	04/14/98	04/14/98	1	7470

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	SDG Number:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-7	Received Date:	04/08/98
Sample ID:	ES-11S	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
Mercury, Hg	7439-97-6	μg/L	0.5	< 0.095	U	CV		98M1341D	04/14/98	04/14/98	1	7470

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/07/98
Project ID:	NTC	SDG Number:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-8	Received Date:	04/08/98
Sample ID:	**ES-12S**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
Mercury, Hg	7439-97-6	$\mu g/L$	0.5	<0.095	U	CV		98M1341D	04/14/98	04/14/98	1	7470

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/08/98
Project ID:	NTC	SDG Number:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-11	Received Date:	04/08/98
Sample ID:	**ES-14D**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
Mercury, Hg	7439-97-6	μg/L	0.5	<0.095	U	CV		98M1341D	04/14/98	04/14/98	1	7470

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	SOTA Environmental	Project No:	98HW001	Collection Date:	04/08/98
Project ID:	NTC	SDG Number:	982332	Collected by:	Mike Sayre
		Lab Sample ID:	98-2332-12	Received Date:	04/08/98
Sample ID:	**ES-14S**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
Mercury, Hg	7439-97-6	$\mu g/L$	0.5	<0.095	U	CV		98M1341D	04/14/98	04/14/98	1	7470

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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U. S. EPA - CLP
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Applied P & Ch Lab Contract:

Lab Code: Case No.: SAS No.: SDG No.: 98-2332

Initial Calibration Source: Fluka
Continuing Calibration Source: Fluka

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
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury	7.5	7.54	100.5	5.0	5.02	100.4	5.07	101.4	CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR
Molybdenum									NR
Tin									NR
Boron									NR

(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: Applied P & Ch Lab Contract:

Lab Code: Case No.: SAS No.: SDG No.: 98-2332

Initial Calibration Source: Fluka
Continuing Calibration Source: Fluka
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
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury				5.0	4.99	99.8			CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR
Molybdenum									NR
Tin									NR
Boron									NR

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

372C

U. S. EPA - CLP
3
BLANKS

Lab Name: Applied P & Ch Lab Contract:

Lab Code: Case No.: SAS No.: SDG No.: 98-2332

Preparation Blank Matrix (soil/water): WATER
Preparation Blank Concentration units: 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
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.095	U	CV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR
Molybdenum											NR
Tin											NR
Boron											NR

3721

U. S. EPA - CLP
5A
SPIKE SAMPLE RECOVERY

Sample No.: MW-5

Lab Name: Applied P & Ch Lab Contract:

Lab Code: Case No.: SAS No.: SDG No.: 98-2332

Matrix (soil/water): WATER Level (low/med): MED

%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
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
[illegible]									NR
[illegible]nesium									NR
Manganese									NR
Mercury	75-125	5.1610		0.1620	B	5.00	100.0		CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR
Molybdenum									NR
Tin									NR
Boron									NR

Comments:

U. S. EPA - CLP
6
DUPLICATES

EPA SAMPLE NO.

MW-5

Lab Name: Applied P & Ch Lab Contract:

Lab Code: Case No.: SAS No.: SDG No.: 98-2332

Matrix (soil/water): WATER Level (low/med): MED

% 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	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead								NR
Magnesium								NR
Manganese								NR
Mercury		0.1620	B	0.1840	B	12.7		CV
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR
Molybdenum								NR
Tin								NR
Boron								NR

U. S. EPA - CLP
7
LABORATORY CONTROL SAMPLES

Lab Name: Applied P & Ch Lab Contract:

Lab Code: Case No.: SAS No.: SDG No.: 98-2332

Solid LCS Source:
Aqueous LCS Source: Aldrich

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury	5.0	4.81	96.2						
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									
Molybdenum									
Tin									
Boron									

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U. S. EPA - CLP

10

Instrument Detection Limits (Quarterly)

Lab Name: Applied P & Ch Lab Contract:

Lab Code: Case No.: SAS No.: SDG No.: 98-2332

ICP ID NUMBER: L DATE: 2/1/98

CV ID NUMBER: D

Furnance AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22			6.0	P
Antimony	206.83			1.2	P
Arsenic	188.98			1.2	P
Barium	233.53			0.63	P
Beryllium	313.11			0.11	P
Cadmium	228.80			0.18	P
Calcium	227.55			50.0	P
Chromium	267.72			0.57	P
Cobalt	228.62			0.67	P
Copper	324.75			0.82	P
Iron	273.96			3.8	P
Lead	220.35			0.80	P
Magnesium	279.08			13.00	P
Manganese	257.61			0.28	P
Mercury	253.70			0.10	CV
Nickel	231.60			1.00	P
Potassium	766.49			12.0	P
Selenium	196.03			1.9	P
Silver	328.07			0.19	P
Sodium	330.24			240	P
Thallium	190.80			1.40	P
Vanadium	292.40			0.29	P
Zinc	213.86			3.50	P
Molybdenum	202.03			0.84	P
Titanium					NR
Tin					NR

Comment:

3725

U.S. EPA - CLP
14
ANALYSIS RUN LOG

b Name: Applied P & Ch Laboratory Contract:
Lab Code: Case No: SAS No.: SDG No.: 98-2332
Instrument ID Number: D Method: CV
Start Date: 4/14/98 End Date: 4/14/98

EPA Sample No.	D/F	Time	%R	Analytes																						
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
C-BL DATE 4/14/98	1.00	09:23																x									
A776 .2PPB	1.00	09:25																x									
A776 0.5PPB	1.00	09:26																x									
A776 1PPB	1.00	09:29																x									
A776 5PPB	1.00	09:32																x									
A776 10PPB	1.00	09:42																x									
ICV A730 7.5 PPB	1.00	09:47																x									
ICB	1.00	09:54																x									
M-BL 98M1341	1.00	09:55																x									
LCS-98M1341	1.00	09:57																x									
LCSD-98M1341	1.00	10:01																x									
2346-5 S F=1	1.00	10:08																x									
2346-5 D F=1	1.00	10:09																x									
2346-5 MS F=1	1.00	10:11																x									
2346-5 MSD F=1	1.00	10:18																x									
40-1 F=1	1.00	10:23																x									
V A730	1.00	10:25																x									
CCB	1.00	10:29																x									
2322-3 F=1	1.00	10:31																x									
2322-4 F=1	1.00	10:32																x									
2359-1 F=1	1.00	10:33																x									
2329-1TC F=5	5.00	10:35																x									
2332-1 F=1	1.00	10:37																x									
2332-2 F=1	1.00	10:38																x									
2332-3 F=1	1.00	10:40																x									
2332-4 F=1	1.00	10:41																x									
2332-5 F=1	1.00	10:42																x									
CCV A730	1.00	10:44																x									
CCB	1.00	10:50																x									
2332-6 F=1	1.00	10:52																x									
2332-7 F=1	1.00	10:53																x									
2332-8 F=1	1.00	10:54																x									
2332-9 F=1	1.00	10:56																x									

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U.S. EPA - CLP
14
ANALYSIS RUN LOG

Lab Name: Applied P & Ch Laboratory Contract:
Lab Code: Case No: SAS No.: SDG No.: 98-2332
Instrument ID Number: D Method: CV
Start Date: 4/14/98 End Date: 4/14/98

EPA Sample No.	D/F	Time	%R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
2332-10 F=1	1.00	10:57																x									
2332-11 F=1	1.00	10:59																x									
2332-12 F=1	1.00	11:00																x									
CCV A730	1.00	11:02																x									
CCB	1.00	11:09																x									
M-BL 98M1342S	1.00	11:10																x									
LCS-98M1342	1.00	11:12																x									
LCSD-98M1342	1.00	11:18																x									
2343-1 S F=166.7	1.00	11:26																x									
2343-1 D F=166.7	1.00	11:28																x									
2343-1 MS F=166.7	1.00	11:29																x									
2343-1 MSD F=166.7	1.00	11:34																x									
2343-2 F=166.7	1.00	11:39																x									
2343-3 F=166.7	1.00	11:42																x									
CCV A730	1.00	11:46																x									
CCB	1.00	11:51																x									
2343-4 F=166.7	1.00	11:52																x									
2343-5 F=166.7	1.00	11:57																x									
2343-6 F=166.7	1.00	12:02																x									
2343-7 F=166.7	1.00	12:06																x									
2343-8 F=166.7	1.00	12:12																x									
2343-9 F=333.3	2.00	12:23																x									
2343-10 F=166.7	1.00	12:28																x									
2343-11 F=166.7	1.00	12:33																x									
CCV A730	1.00	12:36																x									
CCB	1.00	12:47																x									
2343-12 F=166.7	1.00	12:49																x									
2340-2 F=166.7	1.00	12:52																x									
2340-3 F=833.3	5.00	13:03																x									
2340-4 F=166.7	1.00	13:09																x									
2340-5 F=166.7	1.00	13:11																x									
2340-6 F=166.7	1.00	13:14																x									
CCV A730	1.00	13:17																x									

U.S. EPA - CLP
14
ANALYSIS RUN LOG

Lab Name: Applied P & Ch Laboratory Contract:
Lab Code: Case No: SAS No.: SDG No.: 98-2332
Instrument ID Number: D Method: CV
Start Date: 4/14/98 End Date: 4/14/98

EPA Sample No.	D/F	Time	%R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	13:24																x									
M-BL 98M1343S	1.00	13:25																x									
LCS-98M1343	1.00	13:26																x									
LCSD-98M1343	1.00	13:31																x									
2372-2 S F=166.7	1.00	13:35																x									
2372-2 D F=166.7	1.00	13:37																x									
2372-2 MS F=166.7	1.00	13:39																x									
2372-2 MSD F=166.7	1.00	13:44																x									
CCV A730	1.00	13:50																x									
CCB	1.00	14:25																x									
2372-1 F=166.7	1.00	14:26																x									
2372-3 F=166.7	1.00	14:28																x									
2372-4 F=166.7	1.00	14:30																x									
2372-5 F=166.7	1.00	14:32																x									
2372-6 F=166.7	1.00	14:34																x									
2372-7 F=166.7	1.00	14:35																x									
2372-8 F=166.7	1.00	14:37																x									
2372-9 F=166.7	1.00	14:41																x									
CCV A730	1.00	14:44																x									
CCB	1.00	14:50																x									
2372-10 F=166.7	1.00	14:51																x									
2372-11 F=166.7	1.00	14:54																x									
2369-1 F=166.7	1.00	14:56																x									
2379-1 F=166.7	1.00	15:01																x									
2379-2 F=166.7	1.00	15:04																x									
2379-3 F=166.7	1.00	15:07																x									
CCV A730	1.00	15:10																x									
CCB	1.00	15:15																x									

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MISCELLANEOUS

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Mercury Digestion (7470/7471) Worksheet

Batch # 98M1341 Matrix: W Date: 4/14/98 Digested by: XI Diluted by: _____

t #: ASTM Type I water RW1146 HNO_3 971728 H_2SO_4 977192 HCl _____ $KMnO_4$ A755

OP #	Type	STD Lot #	$C_{std} \times V_{std}/V_f = C_s$	OP #	Type	STD Lot #	$C_{std} \times V_{std}/V_f = C_s$
6067	STD-1	AA- 776	200 × 0.00 / 100 = 0.0 µg/L	6071	STD-5	AA- 776	200 × 2.5 / 100 = 5.0 µg/L
6068	STD-2	AA-	× 0.25 / = 0.5 µg/L	6072	STD-6	AA- "	" × 5.0 / " = 10.0 µg/L
6069	STD-3	AA-	× 0.50 / = 1.0 µg/L	6073	STD-7	AA-	× / = µg/L
6070	STD-4	AA-	× 0.10 / = ~~2.0~~ 0.2 µg/L	6074	STD-8	AA-	× / = µg/L

OP #	Type	Samp ID /Lot #	X (g or mL)	$V_{digest}/X = f_1$	$V_f/V_i = f_2$	$V_f'/V_i' = f_3$	$F = f_1 f_2 f_3$	Note
6075	Method Blank	Bl. Lot RW1146	100.0	100.0/X= 1	/ =	/ =		
6076	LCS1	Bl. Lot "		100.0/X=	/ =	/ =		
6077	Sample-1	2346 — 5		100.0/X=	/ =	/ =		
6078	MS1 on S-1	— 5		100.0/X=	/ =	/ =		
6079	MS2 on S-1	— 5		100.0/X=	/ =	/ =		
6080	Sample 2	2340 — 1		100.0/X=	/ =	/ =		
6081	Sample 3	2322 — 3		100.0/X=	/ =	/ =		
6082	Sample 4	— 4		100.0/X=	/ =	/ =		
6083	Sample 5	2359 — 1		100.0/X=	/ =	/ =		
6084	Sample 6	2329 — 1 TC	20.0	100.0/X= 5	/ =	/ =	5	
6085	Sample 7	2332 — 1	100.0	100.0/X= 1	/ =	/ =		
6086	Sample 8	— 2		100.0/X=	/ =	/ =		
6087	Sample 9	— 3		100.0/X=	/ =	/ =		
6088	Sample 10	— 4		100.0/X=	/ =	/ =		
6089	LCS2	Bl. Lot RW1146		100.0/X=	/ =	/ =		
6090	Sample 11	— 5		100.0/X=	/ =	/ =		
6091	Sample 12	— 6		100.0/X=	/ =	/ =		
6092	Sample 13	— 7		100.0/X=	/ =	/ =		
6093	Sample 14	— 8		100.0/X=	/ =	/ =		
6094	Sample 15	— 9		100.0/X=	/ =	/ =		
6095	Sample 16	— 10		100.0/X=	/ =	/ =		
6096	Sample 17	— 11		100.0/X=	/ =	/ =		
6097	Sample 18	— 12		100.0/X=	/ =	/ =		
6098	Sample 19			100.0/X=	/ =	/ =		
6099	Sample 20		4/14/98	100.0/X=	/ =	/ =		
6100	Duplicate	2346 — 5	100.0	100.0/X= 1	/ =	/ =		

MS/MSD Specification

Op #	STD Lot #	$C_{STD}(\mu g/L) \times V_{STD}(mL)/X(g \text{ or } mL) = T$
78	AA- 78	10.000 × 0.05 / X = 5 ppb
6079	AA- "	" × " / X = " ppb

LCS/LCSD Specification

Op #	STD Lot #	$C_{STD}(\mu g/L) \times V_{STD}(mL)/X(g \text{ or } mL) = T$
~~775~~ 6076	AA- 775	× 3730 ppb
6089	AA-	× / X = ppb

Example-File:[CUST.DOC.AA]HG1.TEX, Seed-File:[ ]CAL_HG.TEX, BODY_HG.TEX, MSD_HG.TEX Root-File:[ ]HG_ROOT.TEX File:HG .TEX

APCL form 5-110 Aug. 31, 1994. Ver. 3.0 No pencil. Use blue pen for record. Use red pen for correction.

Supervisor Initial R.V.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Metal Standard/Solution Logbook

Lot #	Solution/STD Description	Ref. Vol./Page	Stock Solution Supplier/Catal #/Lot #/EXT #	Reagent Water	Additional Name/Supplier/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{total}} = C_{STD}$	Prpd Date	Prpd by	Vrfd by	Expire Date
AA-767	for MS. LCS 3.0 C#: Pb.Tl.As Se 25 ppm 50	AASP 1/138	S: C: L: EX-	RW-1123	N: S: L: EX-	x =	11/4/97	R.C.	y	8/4/98
AA-768	for CLP 3.0 MS C#: Cr Ni Mg K 2500 1250 500	AASP 1/139	S: C: L: EX-	RW-1123	N: S: L: EX-	x =	11/5/97	R.C	y	8/5/98
AA-769A	Au C#: 2.5 ppm	1	S: Alfa Aesar C: 20,716-0 L: 06326BQ EX- 3579	RW-1126	N: S: L: EX-	$\frac{0.245 \times 1020 \text{ ppm}}{100} = 2.5$ ppm	11/25/97	R.C	y	8/25/98
AA-769B	Au 5 ppm C#:	1	S: " C: " L: " EX- "	RW-1126	N: S: L: EX-	$\frac{0.490 \times 1020 \text{ ppm}}{100} = 5.0$ ppm	11/25/97	R.C	y	8/25/98
AA-769C	Au 10 ppm C#:	1	S: " C: " L: " EX- "	RW-1126	N: S: L: EX-	$\frac{0.980 \times 1020 \text{ ppm}}{100} = 10.0$ ppm	11/25/97	R.C	y	8/25/98
AA-770	5% C#: $KMnO_4$ in H_2O	1	S: Alfa Aesar C: 39,912-4 L: 02624HG EX-	RW-1137	N: S: L: EX-	$\frac{100g}{2000ml} = 5\%$	2/6/98	R.C	N.T	8/6/98
AA-771	10% for Hg C#: $SnCl_2$	1	S: Fisher C: T142-500 L: 974651 EX- 3329	RW-1137	N: S: L: EX-	$\frac{100g}{1000ml} = 10\%$	2/6/98	N.T	R.C	8/6/98
AA-772	12% $H_2NOHHCl$ for Hg C#:	1	S: Fisher C: H330-1 L: 974975 EX-	RW-1137	N: NaCl S: Spectrum L: MU0572 EX-	$\frac{120g \ H(NH_2)Cl}{1000ml} = 12\%$	2/6/98	N.T	R.C	8/6/98
AA-773	5% for Hg C#: $K_2S_2O_8$	1	S: Alfa Aesar C: 21,622-4 L: 08620KQ EX- 2802	RW-1137	N: S: L: EX-	$\frac{50g}{1000} = 5\%$	2/6/98	N.T	R.C	8/6/98
AA-774	C#: CRDLX(5)	AASP 1/140	S: C: L: EX-	RW-1139	N: S: L: EX-	x =	2/29/98	DW	RL	9/29/98
AA-775	10 ppm Hg C#: ULTRA Scientific	1 LCS	S: Ultra Scientific C: ICP-180 L: IC-0430 EX- 3/2000	RW-1141	N: 1ml – 10ml L: 10.000/10 EX- 1000ppm	$\frac{1 \times 1000}{100} = 10$ ppm	3/11/98	N.T	R.L	12/11/98
AA-776	$^{3}_{1}$Hg C#: 0.2 ppm	1	S: Ultra Scientific C: L: EX- A775	RW-1141	N: S: L: EX-	$\frac{2 \times 10}{100} = 0.2$ ppm	3/11/98	N.T	R.L	12/11/98

Appl... T & ... Laboratory
13760 Magn... e. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Metal Standard Solution Logbook

Lot #	Solution/STD Description	Ref. Vol./Page	Stock Solution Supplier/Catal #/Lot #/EXT #	Reagent Water	Additional Name/Supplier/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{total}} = C_{STD}$	Prpd Date	Prpd by	Vrfd by	Expire Date
AA-725	As Pb Se Tl 4 2 1 5 mg/L C#: for CLP GFAA	ASP/131	S: C: L: EX-	RW-1114	N: S: L: EX-	x =	9/5/97	12.c	JC	3/31/98
AA-726	15 Mg 50 for CLP MS C#:	ASP/134	S: C: L: EX-	RW-1114	N: S: L: EX-	x =	9/5/97	12.c	JC	9/5/98
AA-727	As Pb Se Tl 4 2 1 5 C#: for CLP GFAA MS	ASP/132	S: C: L: EX-	RW-1114	N: S: L: EX-	x =	9/5/97	12.c	JC	9/5/98
AA-728	C#: Hg 10ppm Fluka	1 MS	S: Fluka C: 53357 L: 52478 EX- 2564	RW-1114	N: S: L: EX-	1 x 1000 / 100 = 10ppm	9/05/97	[illegible]	RL	9/05/98
AA-729	C#: Hg 10ppm Accu SIR	1 CCS	S: Accu C: ICP-3YN 1-10X L: 074-826 EX- 2480	RW-1114	N: 1mL→100mL S: L: 10043 / 100 = 1004ppm EX-	0.996 x 1004 / 100 = 10ppm	9/05/97	[illegible]	RL	3/05/98
AA-730	C#: Hg 0.2ppm ICV CCV	1	S: Fluka C: L: EX- A728	RW-1114	N: S: L: EX-	2 x 10 / 100 = 0.2ppm	9/05/97	[illegible]	RL	9/05/98
AA-731	C#: Hg 0.2ppm	1	S: Accu C: L: EX- A729	RW-1114	N: S: L: EX-	2 x 10 / 100 = 0.2ppm	9/05/97	[illegible]	RL	3/05/98
AA-732	C#: As 5 Se 10	1 ppm	S: Aldrich C: 35605-0 L: 11601PQ EX- 3363	RW-1114	N: S: L: EX-	As 0.25 x 9400 / 500 = 5 ppm; Se 0.50 x 9940 / 500 = 10 ppm	9/5/97	[illegible]	RL	9/4/98
AA-733	C#: As 5 Se 10	1 ppm	S: Accu C: ICP-6N1-10X L: 055-728 EX- 2568	RW-1114	N: S: L: EX-	As 0.25 x 10056 / 500 = 5 ppm; Se 0.50 x 9963 / 500 = 10 ppm	9/5/97	[illegible]	RL	3/31/98
AA-734A	C#: As 0.1 Se 0.2	1 ppm	S: C: L: STD 1 EX-	RW-1114	N: S: L: A732 EX-	As 1.00 x 5/10 / 250 = 0.1; Se 0.50 x 5/10 / 250 = 0.2 ppm	9/5/97	[illegible]	RL	9/4/98
AA-734B	C#: As 0.05 Se 0.1	1 ppm	S: C: L: STD 2 EX-	RW-1114	N: S: L: A732 EX-	As 2.50 x 5/10 / 250 = 0.05; Se 0.50 x 5/10 / 250 = 0.1 ppm	"	"	"	"
AA-735	C#: As 0.05 Se 0.1	1 ppm	S: C: L: CCV EX-	RW-1114	N: S: L: A733 EX-	As 2.50 x 5/10 / 250 = 0.05; Se 0.50 x 5/10 / 250 = 0.1 ppm	9/5/97	[illegible]	RL	3/31/98

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Applied P & Co. Laboratory
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Metal Standard/Solution Logbook

Lot # N.F 9/8/97	Solution/STD Description	Ref. Vol./Page	Stock Solution Supplier/Catal #/Lot #/EXT #	Reagent Water	Additional Name/Supplier/Lot #/EXT #	$\frac{V_{stock} \times C_{stock}}{V_{total}} = C_{STD}$	Prpd Date	Prpd by	Vrfd by	Expire Date
N.F AA-~~721~~ 748	3.2% $(NH_4)_2HPO_4$ C#: for Cd modifier	1	S: Aldrich C: L: 00707DN EX- 2460	RW-1115	N: S: L: EX-	$\frac{\times 3.2g}{100} = 3.2\%$	9/8/97	N.F	R.L	9/7/98
N.F AA-~~722~~ 749	70% Al $(NO_3)_3$ C#: for V. Mo modifier	1	S: Aldrich C: L: 10302TG EX- 2025	RW-1115	N: S: L: EX-	$\frac{\times 70g}{100} = 70\%$	"	"	"	"
N.F AA-~~723~~ 750 9/8/97	AA Mixed C#: STD	ASP 1 P135	S: Accu Standard C: L: EX-	RW-1115	N: S: L: EX-	$\frac{\times}{} =$	9/8/97	"	"	"
AA-~~724~~ 751 R.L 9/8/97	AA mixed C#: 1/50 → STD CCV	ASP 1 P136	S: Fluka C: L: EX-	RW-1115	N: S: L: EX-	$\frac{\times}{} =$	"	"	"	"
AA-752A	C#: STD 1	1	S: 1/200 A750 C: L: EX-	RW-1115	N: S: L: EX-	$\frac{\times}{} =$	9/8/97	"	"	9/7/98
AA-752B	C#: STD 2	1	S: 1/100 A750 C: L: EX-	RW-1115	N: S: L: EX-	$\frac{\times}{} =$	"	"	"	"
AA-752C	C#: STD 3	1	S: 1/50 A750 C: L: EX-	RW-1115	N: S: L: EX-	$\frac{\times}{} =$	"	"	"	"
AA-753	C#: for CCV	1	S: 1/50 A751 C: L: EX-	RW-1115	N: S: L: EX-	$\frac{\times}{} =$	"	"	"	"
AA-754	C#: KCl	1	S: C: L: EX-	RW-1116	N: S: L: EX-	$\frac{19g \times}{200} = 9.5\%$	9/16/97	N.F	YW	9/15/98
AA-755	C#: $KMnO_4$	5% 1	S: Aldrich C: 39912-4 L: 02624HQ EX- 2803	RW-1116	N: S: L: EX-	$\frac{100 \times g}{2000} = 5\%$	9/16/97	N.F	YW	9/15/98
AA-	C#:	1	S: C: L: EX-	RW-	N: S: L: EX-	$\frac{100 \times g}{} =$	YW	9/16/97		
AA-756	C#: 373 $SnCl_2$	10%	S: 11311EN C: 7142-500 L: 972322 EX- 3116	RW-1117	N: S: L: EX-	$\frac{100g \times}{1000} = 10\%$	9/22/97	[illegible]	R.L	9/22/98

Level C Data Package Deliverables

Wet Chemistry

Applied P & Ch Laboratory

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Applied P & Ch Laboratory

Wet Analysis Results for Method 160.1

Client Name:	SOTA Environmental	Project No:	98HW001	Anal. Method	160.1
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre

Component Name: Solids, Total Dissolved (TDS)
CAS No: 10-33-3

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
98-2332-1	DMW-5	Water	04/07/98	04/08/98	04/13/98	98W2440	mg/L	10	5660	
98-2332-2	ES-6D	Water	04/07/98	04/08/98	04/13/98	98W2440	mg/L	10	19300	
98-2332-3	ES-7D	Water	04/07/98	04/08/98	04/13/98	98W2440	mg/L	10	35600	
98-2332-4	ES-7S	Water	04/07/98	04/08/98	04/13/98	98W2440	mg/L	10	9310	
98-2332-5	Field Blank	Water	04/07/98	04/08/98	04/13/98	98W2440	mg/L	10	<10	U
98-2332-6	ES-11D	Water	04/07/98	04/08/98	04/13/98	98W2440	mg/L	10	25200	
98-2332-7	ES-11S	Water	04/07/98	04/08/98	04/13/98	98W2440	mg/L	10	19500	
98-2332-8	ES-12S	Water	04/07/98	04/08/98	04/13/98	98W2440	mg/L	10	1160	
98-2332-9	ES-13D	Water	04/07/98	04/08/98	04/13/98	98W2440	mg/L	10	36300	
98-2332-10	ES-13S	Water	04/07/98	04/08/98	04/13/98	98W2440	mg/L	10	4330	
98-2332-11	ES-14D	Water	04/08/98	04/08/98	04/13/98	98W2440	mg/L	10	4230	
98-2332-12	ES-14S	Water	04/08/98	04/08/98	04/13/98	98W2440	mg/L	10	725	
98W2440-MB-01	98W2440-MB-01	Water	04/13/98	04/13/98	04/13/98	98W2440	mg/L	10	<10	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Wet Analysis Results for Method SM4500NO3D

Client Name:	SOTA Environmental	Project No:	98HW001	Anal. Method	SM4500NO3D
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre

Component Name: Nitrate as N
CAS No: 14797-55-8

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
98-2332-1	DMW-5	Water	04/07/98	04/08/98	04/08/98	98W2391	mg/L	1	12	
98-2332-2	ES-6D	Water	04/07/98	04/08/98	04/08/98	98W2391	mg/L	1	15	
98-2332-3	ES-7D	Water	04/07/98	04/08/98	04/08/98	98W2391	mg/L	1	28	
98-2332-4	ES-7S	Water	04/07/98	04/08/98	04/08/98	98W2391	mg/L	1	5.9	
98-2332-5	Field Blank	Water	04/07/98	04/08/98	04/08/98	98W2391	mg/L	1	<1	U
98-2332-6	ES-11D	Water	04/07/98	04/08/98	04/08/98	98W2391	mg/L	1	23	
98-2332-7	ES-11S	Water	04/07/98	04/08/98	04/08/98	98W2391	mg/L	1	22	
98-2332-8	ES-12S	Water	04/07/98	04/08/98	04/08/98	98W2391	mg/L	1	2.4	
98-2332-9	ES-13D	Water	04/07/98	04/08/98	04/08/98	98W2391	mg/L	1	28	
98-2332-10	ES-13S	Water	04/07/98	04/08/98	04/08/98	98W2391	mg/L	1	5.6	
98-2332-11	ES-14D	Water	04/08/98	04/08/98	04/08/98	98W2391	mg/L	1	2.6	
98-2332-12	ES-14S	Water	04/08/98	04/08/98	04/08/98	98W2391	mg/L	1	<1	U
98W2391-MB-01	98W2391-MB-01	Water	04/08/98	04/08/98	04/08/98	98W2391	mg/L	1	<1	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.
[a] Analyzed on 04/08/98

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

373E

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Wet Analysis Results for Method 300.0

Client Name:	SOTA Environmental	Project No:	98HW001	Anal. Method	300.0
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre

Component Name: Chloride Cl^- by IC
CAS No: 16887-00-6

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
98-2332-1	DMW-5	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	200	3300	
98-2332-2	ES-6D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	400	11500	
98-2332-3	ES-7D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	1000	20400	
98-2332-4	ES-7S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	200	5580	
98-2332-5	Field Blank	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	0.2	<0.2	U
98-2332-6	ES-11D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	1000	16000	
98-2332-7	ES-11S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	500	14500	
98-2332-8	ES-12S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	20	415	
98-2332-9	ES-13D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	1000	25100	
98-2332-10	ES-13S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	100	3260	
98-2332-11	ES-14D	Water	04/08/98	04/08/98	04/09/98	98W2407	mg/L	100	2320	
98-2332-12	ES-14S	Water	04/08/98	04/08/98	04/09/98	98W2407	mg/L	4	127	
98W2407-MB-01	98W2407-MB-01	Water	04/09/98	04/09/98	04/09/98	98W2407	mg/L	0.2	<0.2	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Applied P & Ch Laboratory

Wet Analysis Results for Method 300.0

Client Name:	SOTA Environmental	Project No:	98HW001	Anal. Method	300.0
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre

Component Name: Nitrate (NO_3^-) as N by IC
CAS No: 14797-55-8

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
98-2332-1	DMW-5	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	40	<40	U
98-2332-2	ES-6D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	80	<80	U
98-2332-3	ES-7D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	200	<200	U
98-2332-4	ES-7S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	40	<40	U
98-2332-5	Field Blank	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	0.04	<0.04	U
98-2332-6	ES-11D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	200	<200	U
98-2332-7	ES-11S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	100	<100	U
98-2332-8	ES-12S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	4	<4	U
98-2332-9	ES-13D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	200	<200	U
98-2332-10	ES-13S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	20	<20	U
98-2332-11	ES-14D	Water	04/08/98	04/08/98	04/09/98	98W2407	mg/L	20	<20	U
98-2332-12	ES-14S	Water	04/08/98	04/08/98	04/09/98	98W2407	mg/L	0.8	<0.8	U
98W2407-MB-01	98W2407-MB-01	Water	04/09/98	04/09/98	04/09/98	98W2407	mg/L	0.04	<0.04	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Applied P & Ch Laboratory

Wet Analysis Results for Method 300.0

Client Name:	SOTA Environmental	Project No:	98HW001	Anal. Method	300.0
Project ID:	NTC	Service ID:	982332	Collected by:	Mike Sayre

Component Name: Sulfate (SO_4^{--}), by IC
CAS No: 14808-79-8

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
98-2332-1	DMW-5	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	500	600	
98-2332-2	ES-6D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	1000	2400	
98-2332-3	ES-7D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	2500	<2500	U
98-2332-4	ES-7S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	500	1400	
98-2332-5	Field Blank	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	0.5	<0.5	U
98-2332-6	ES-11D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	2500	3000	
98-2332-7	ES-11S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	1300	3000	
98-2332-8	ES-12S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	50	250	
98-2332-9	ES-13D	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	2500	2000	B
98-2332-10	ES-13S	Water	04/07/98	04/08/98	04/09/98	98W2407	mg/L	250	<250	U
98-2332-11	ES-14D	Water	04/08/98	04/08/98	04/09/98	98W2407	mg/L	250	500	
98-2332-12	ES-14S	Water	04/08/98	04/08/98	04/09/98	98W2407	mg/L	10	271	
98W2407-MB-01	98W2407-MB-01	Water	04/09/98	04/09/98	04/09/98	98W2407	mg/L	0.5	<0.5	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 300.0

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98W2407		
LCS Filename:	-	Date Analyzed:	040998	Time Analyzed:	17:15
LCSD Filename:	-	Date Analyzed:	040998	Time Analyzed:	17:25

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
Chloride Cl^- by IC	mg/L	2.0	0	2.02	101	90-110
Nitrate (NO_3^-) as N by IC	mg/L	1.5	0	1.51	101	90-110
Sulfate (SO_4^{--}), by IC	mg/L	7.5	0	7.34	98	90-110
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
Chloride Cl^- by IC	mg/L	2.0	2.00	100	1	20	90-110
Nitrate (NO_3^-) as N by IC	mg/L	1.5	1.52	101	0	20	90-110
Sulfate (SO_4^{--}), by IC	mg/L	7.5	7.25	97	1	20	90-110
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

374C

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 300.0

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98W2407		
MS Filename:	-	Date Analyzed:	040998	Time Analyzed:	19:56
MSD Filename:	-	Date Analyzed:	040998	Time Analyzed:	20:07
MS Sample No:	ES-10S	Sample Lab ID:	98-2332-5		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
Chloride Cl^- by IC	mg/L	2.0	0	2.00	100	75-125
Nitrate (NO_3^-) as N by IC	mg/L	1.5	0	1.46	97	75-125
Sulfate (SO_4^{--}), by IC	mg/L	7.5	0	6.92	92	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
Chloride Cl^- by IC	mg/L	2.0	2.09	105	5	20	75-125
Nitrate (NO_3^-) as N by IC	mg/L	1.5	1.44	96	1	20	75-125
Sulfate (SO_4^{--}), by IC	mg/L	7.5	6.89	92	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 300.0

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98W2407		
MS Filename:	-	Date Analyzed:	040998	Time Analyzed:	19:56
MSD Filename:	-	Date Analyzed:	040998	Time Analyzed:	20:07
MS Sample No:	**Field Blank**	Sample Lab ID:	98-2332-5		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
Chloride Cl^- by IC	mg/L	2.0	0	2.00	100	75-125
Nitrate (NO_3^-) as N by IC	mg/L	1.5	0	1.46	97	75-125
Sulfate (SO_4^{--}), by IC	mg/L	7.5	0	6.92	92	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
Chloride Cl^- by IC	mg/L	2.0	2.09	105	5	20	75-125
Nitrate (NO_3^-) as N by IC	mg/L	1.5	1.44	96	1	20	75-125
Sulfate (SO_4^{--}), by IC	mg/L	7.5	6.89	92	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

_____

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Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method SM4500NO3D

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98W2391		
LCS Filename:	-	Date Analyzed:	040898	Time Analyzed:	
LCSD Filename:	-	Date Analyzed:	040898	Time Analyzed:	

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
Nitrate as N	mg/L	25	0	23.1	92	74-112
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
Nitrate as N	mg/L	25	22.3	89	3	18	74-112
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

3743

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method SM4500NO3D

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98W2391		
MS Filename:	-	Date Analyzed:	040898	Time Analyzed:	
MSD Filename:	-	Date Analyzed:	040898	Time Analyzed:	
MS Sample No:	Field Blank	Sample Lab ID:	98-2332-5		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
Nitrate as N	mg/L	25	0.6	25.0	98	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
Nitrate as N	mg/L	25	24.1	94	4	18	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

3744

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 160.1

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98W2440		
LCS Filename:	-	Date Analyzed:	041398	Time Analyzed:	09:58
LCSD Filename:	-	Date Analyzed:	041398	Time Analyzed:	09:58

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
Solids, Total Dissolved (TDS)	mg/L	400	0	389	97	73-121
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
Solids, Total Dissolved (TDS)	mg/L	400	393	98	1	20	73-121
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

3745

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 160.1

Client Name:	SOTA Environmental	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	982332
Project ID:	NTC	Project No:	98HW001	Sample Matrix:	Water
		Batch No:	98W2440		
MS Filename:	-	Date Analyzed:	041398	Time Analyzed:	09:58
MSD Filename:	-	Date Analyzed:	041398	Time Analyzed:	09:58
MS Sample No:	BUILDING 1577	Sample Lab ID:	98-2401-5		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
Solids, Total Dissolved (TDS)	mg/L	400	187	580	98	92-103
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
Solids, Total Dissolved (TDS)	mg/L	400	586	100	2	20	92-103
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

374E

Wet Chemistry QC Report

Duplicate Results

Matrix: Water
APCL Service ID: 98-2332

Analysis	Analysis Date	Sample Name	Result (mg/L)	Duplicate Result	RPD (%)	RPD Limit
Solids, Total Dissolved (TDS) [a]	4/13/98	98-2401-05	187	190	2	20
Nitrate as N [b]	4/8/98	ES-10S	ND	ND	NC	20
Chloride Cl- by IC [c]	4/9/98	ES-10S	ND	ND	NC	20
Nitrate (NO3-) as N by IC [c]	4/9/98	ES-10S	ND	ND	NC	20
Sulfate (So4--), by IC [c]	4/9/98	ES-10S	ND	ND	NC	20

Note : ND = Not Detected; NC = Not Calculated.

NOTE: (a) BATCH 98W2440
(b) BATCH 98W2391
(c) BATCH 98W2407

3747

DIONEX METHOD PARAMETERS - E300-009.MET

Component Table -- Last Modified: 11:08 on Mon, 30 Mar 1998

Component # 1 Fluoride
Reference Comp. Fluoride
Amount = K0 + K1*Area
K0 = 0.00000E+000
K1 = 1.92651E-006

Retention Time 0.97
Window Size 0.10 min.

Amt = Resp * 1.918 e-6
r^2 = 0.9985

Level	Amount	Area	Height
1	2.50000E-002	18586	2953
2	1.00000E-001	48274	9779
3	5.00000E-001	235067	47189
4	1.00000E+000	510018	102133
5	2.00000E+000	1014288	176334
6	2.50000E+000	1323845	238930

Component # 2 Chloride
Reference Comp. Chloride
Amount = K0 + K1*Area
K0 = 0.00000E+000
K1 = 3.07802E-006

Retention Time 1.47
Window Size 0.10 min.

Amt = Resp * 3.066 e-6
r^2 = 0.996985

Level	Amount	Area	Height
1	5.00000E-002	45149	8692
2	2.00000E-001	80747	14527
3	1.00000E+000	299154	61010
4	2.00000E+000	613899	128642
5	4.00000E+000	1262585	263580
6	5.00000E+000	1668647	304289

Component # 3 Nitrite-N
Reference Comp. Chloride
Amount = K0 + K1*Area
K0 = 0.00000E+000
K1 = 1.58442E-006

Retention Time 1.75
Window Size 0.20 min.

Amt = Resp * ~~6.3~~ hu 3/30/98
1.583e-6
r^2 = 0.9987

Level	Amount	Area	Height
1	3.75000E-002	20988	3596
2	1.50000E-001	85586	14035
3	7.50000E-001	434616	69068
4	1.50000E+000	906860	168783
5	3.00000E+000	1856152	310956
6	3.75000E+000	2417688	416356

Component # 4 Bromide Retention Time 2.65
Reference Comp. Nitrate-N Window Size 0.30 min.
Amount = K0 + K1*Area
K0 = 0.00000E+000
K1 = 7.93227E-006

Amt = Resp * 7.918e-6
r^2 = 0.99898

Level	Amount	Area	Height
1	7.50000E-002	8464	1260
2	3.00000E-001	32079	4954
3	1.50000E+000	173975	24943
4	3.00000E+000	367233	56227
5	6.00000E+000	740626	113266
6	7.50000E+000	964721	157571

Component # 5 Nitrate-N Retention Time 3.00
Reference Comp. Nitrate-N Window Size 0.35 min.
Amount = K0 + K1*Area
K0 = 0.00000E+000
K1 = 1.01430E-006

Amt = Resp * 1.014e-6
r^2 = 0.99736

Level	Amount	Area	Height
1	3.75000E-002	31716	4164
2	1.50000E-001	129869	16361
3	7.50000E-001	645789	80526
4	1.50000E+000	1389328	174139
5	3.00000E+000	2895601	356529
6	3.75000E+000	3793883	463790

Component # 6 Phosphate-P Retention Time 4.43
Reference Comp. Phosphate-P Window Size 0.40 min.
Amount = K0 + K1*Area
K0 = 0.00000E+000
K1 = 3.37378E-006

Amt = Resp * 3.369e-6
r^2 = 0.99732b

Level	Amount	Area	Height
1	7.50000E-002	12932	1180
2	3.00000E-001	66458	5723
3	1.50000E+000	368883	30210
4	3.00000E+000	838342	69899
5	6.00000E+000	1731773	147949
6	7.50000E+000	2289834	196684

Component # 7 Sulfate
Reference Comp. Sulfate
Amount = K0 + K1*Area
K0 = 0.00000E+000
K1 = 3.80138E-006

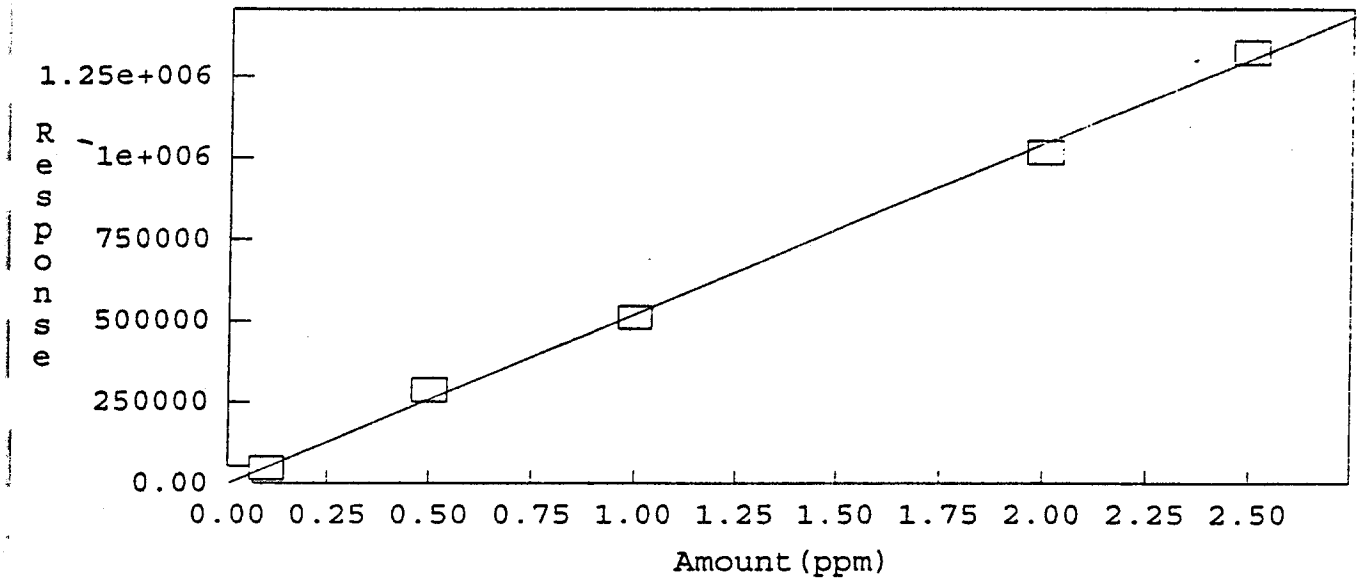
Retention Time 5.78
Window Size 0.40 min.

Amt = Resp * 3.795 e-6
r^2 = 0.998616

Level	Amount	Area	Height
1	1.87500E-001	52550	3780
2	7.50000E-001	176672	12071
3	3.75000E+000	862283	59645
4	7.50000E+000	1895445	132532
5	1.50000E+001	3859582	273305
6	1.87500E+001	5049415	361143

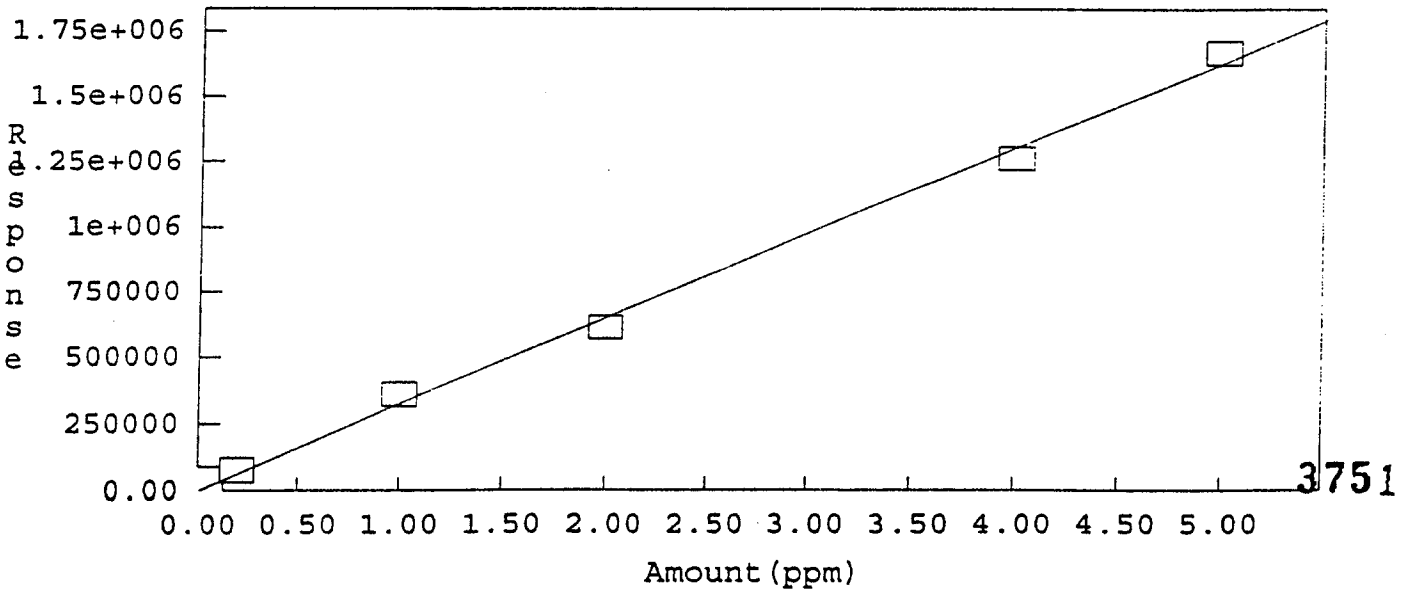
Method: E300-009.MET - Last Updated: 11:36 on Mon, 30 Mar 1998

Component: Fluoride
Fit Type: Linear (Force Zero)
r^2 = 0.998501
Amt = Resp * 1.918e-006 + 0
Resp = Amt * 5.214e+005 + 0
Standardization: External
Calibration: Area



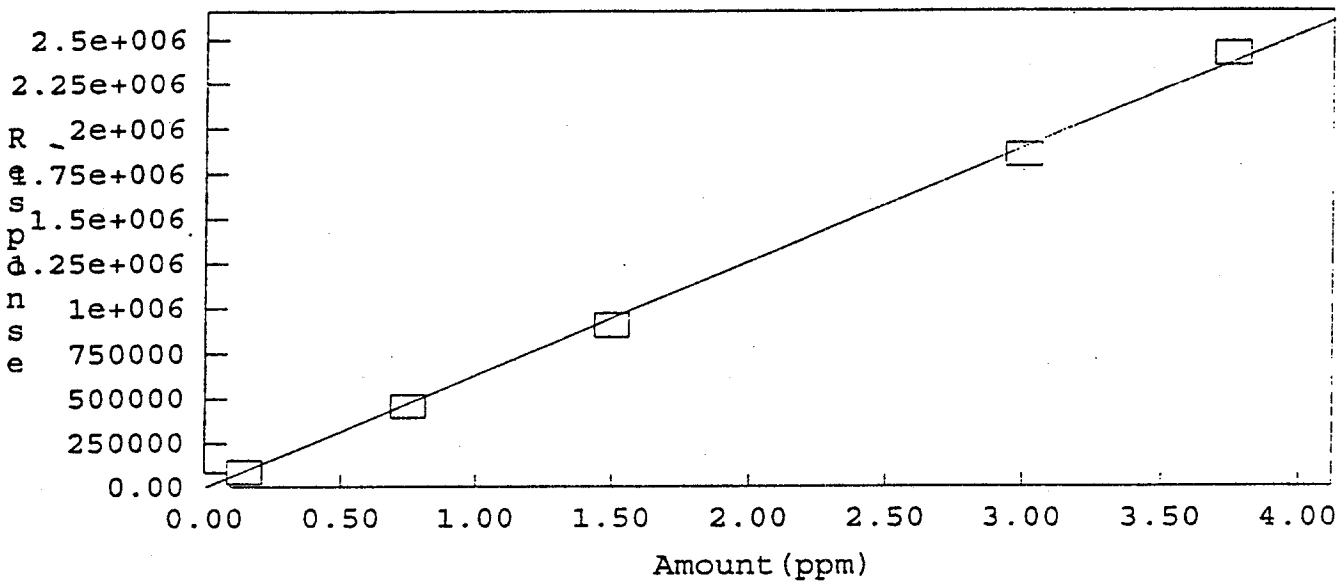
Method: C:\DX\METHOD\E300-009.MET

Component: Chloride
Fit Type: Linear (Force Zero)
r^2 = 0.996959
Amt = Resp * 3.066e-006 + 0
Resp = Amt * 3.262e+005 + 0
Standardization: External
Calibration: Area



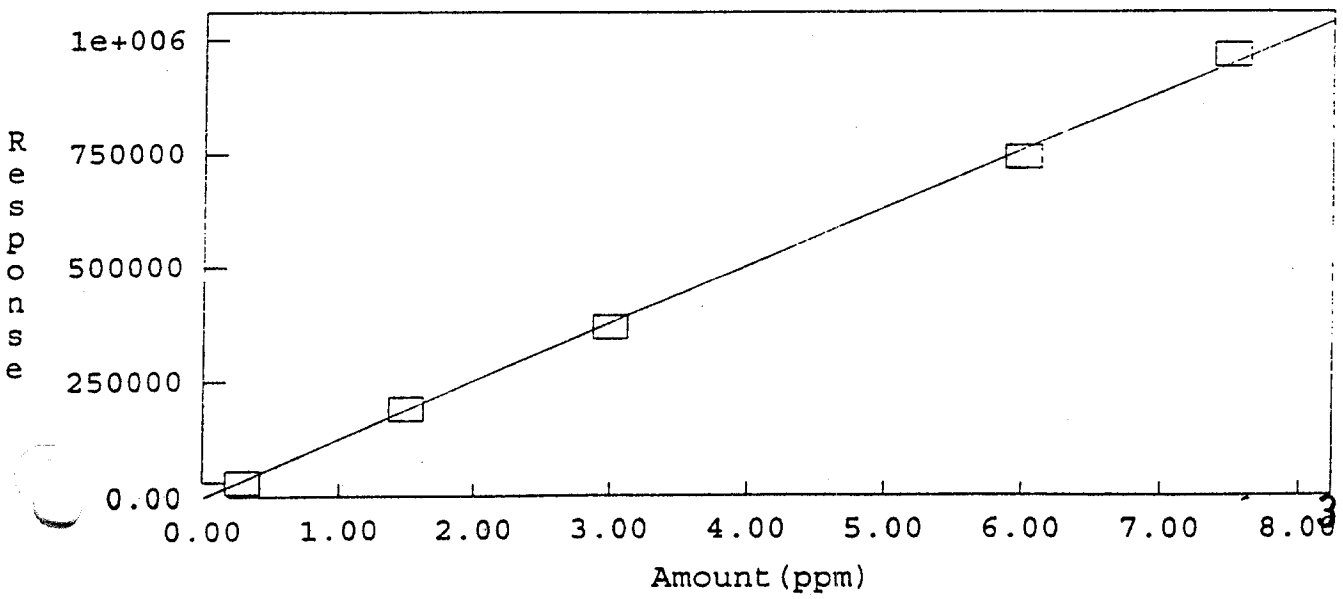
Method: C:\DX\METHOD\E300-009.MET

Component: Nitrite-N
Fit Type: Linear (Force Zero)
r^2 = 0.998735
Amt = Resp * 1.583e-006 + 0
Resp = Amt * 6.317e+005 + 0
Standardization: External
Calibration: Area



Method: C:\DX\METHOD\E300-009.MET

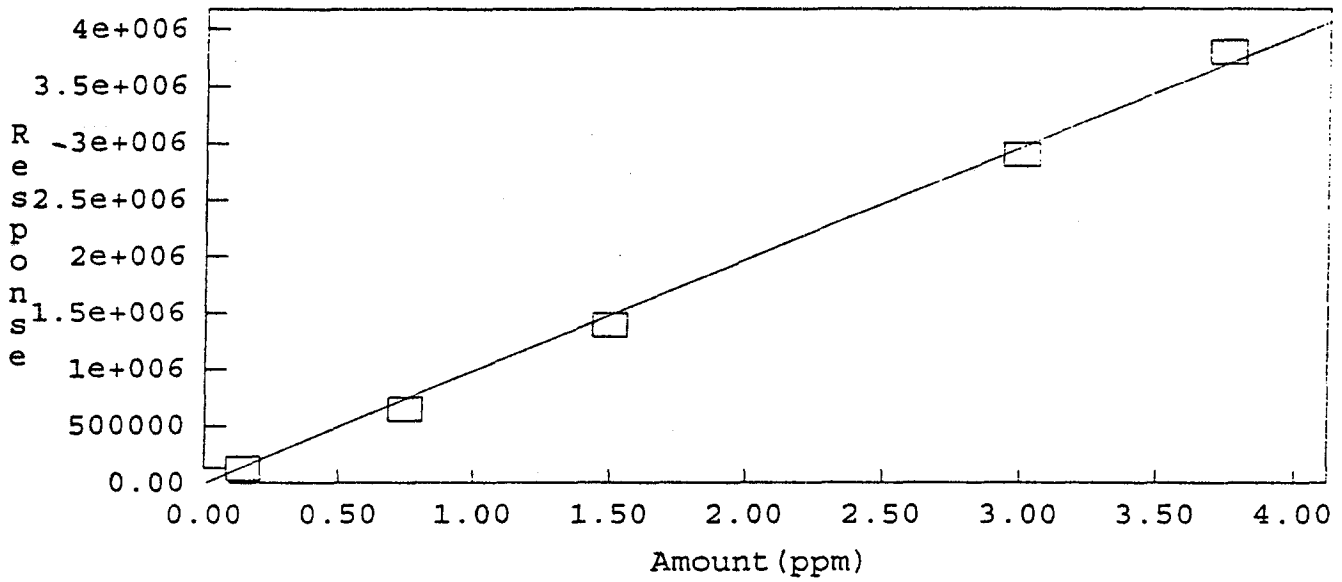
Component: Bromide
Fit Type: Linear (Force Zero)
r^2 = 0.998976
Amt = Resp * 7.918e-006 + 0
Resp = Amt * 1.263e+005 + 0
Standardization: External
Calibration: Area



3752

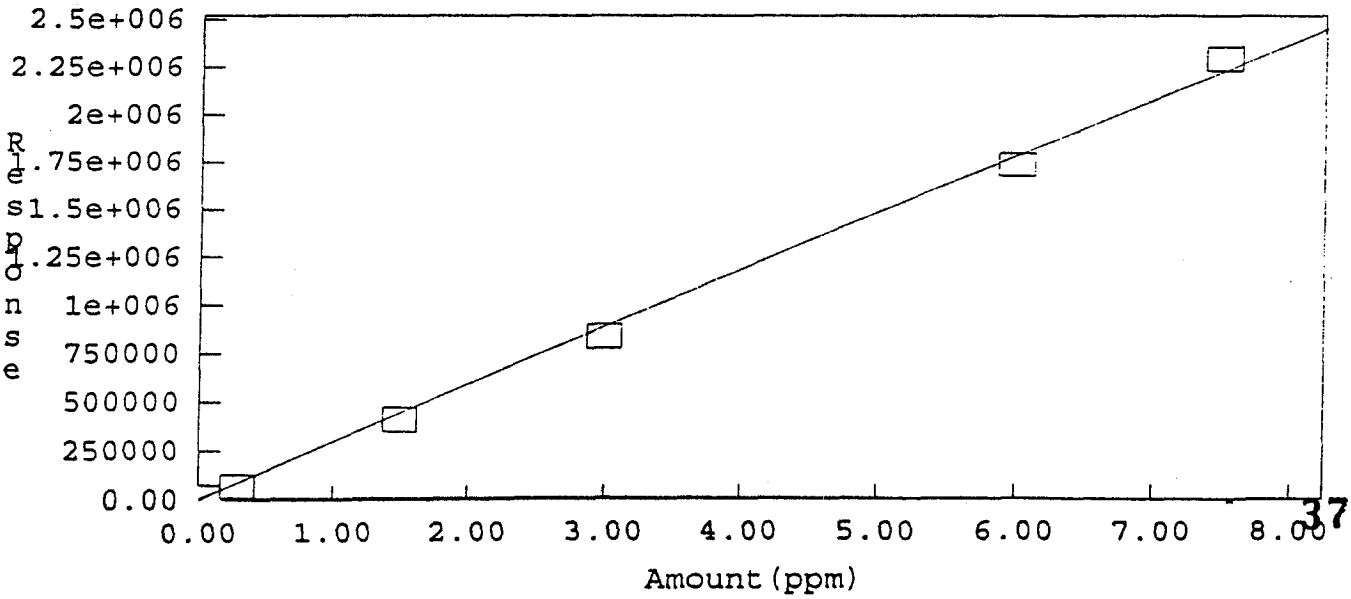
Method: C:\DX\METHOD\E300-009.MET

Component: Nitrate-N
Fit Type: Linear (Force Zero)
r^2 = 0.997360
Amt = Resp * 1.014e-006 + 0
Resp = Amt * 9.859e+005 + 0
Standardization: External
Calibration: Area



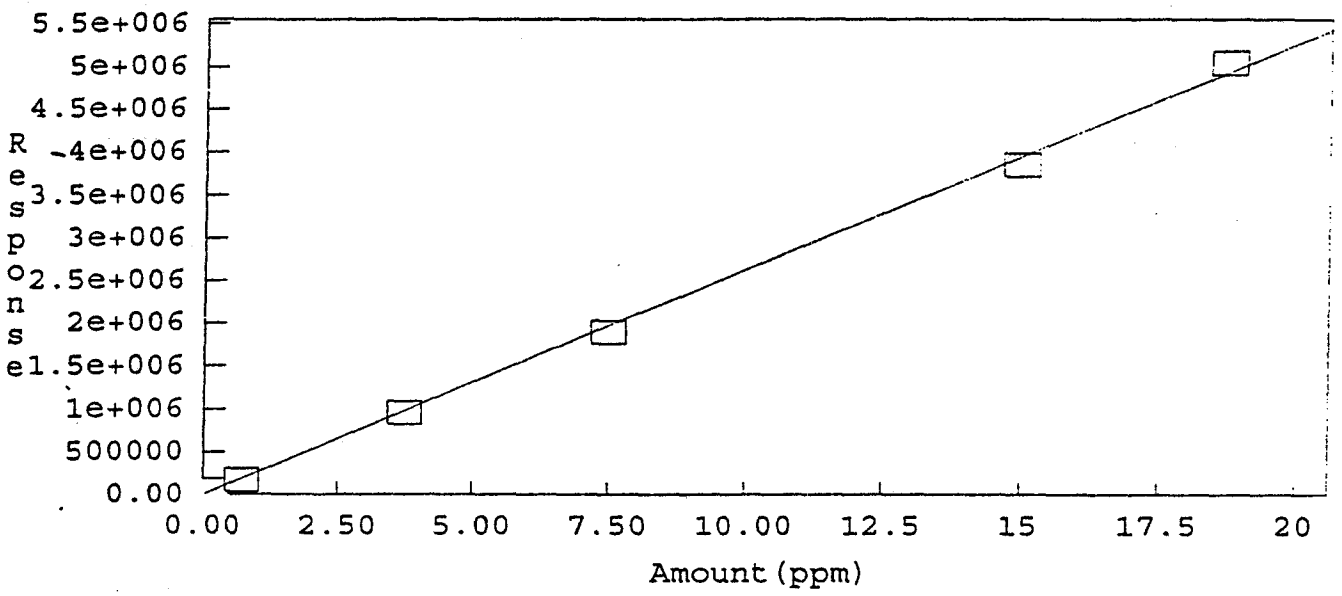
Method: C:\DX\METHOD\E300-009.MET

Component: Phosphate-P
Fit Type: Linear (Force Zero)
r^2 = 0.997326
Amt = Resp * 3.369e-006 + 0
Resp = Amt * 2.968e+005 + 0
Standardization: External
Calibration: Area



Method: C:\DX\METHOD\E300-009.MET

Component: Sulfate
Fit Type: Linear (Force Zero)
r^2 = 0.998616
Amt = Resp * 3.795e-006 + 0
Resp = Amt * 2.635e+005 + 0
Standardization: External
Calibration: Area



6A

INITIAL CALIBRATION DATA

Lab Name: Applied P & Ch Lab Contract:

Project No.: Site: Location: Group:

Analysis: NITRATE Calibration Date: 4/8/98

SDG NO: 98-2332

Concentration (mg/L)	2	10	25	50
Potential (E, mV)	186.5	151.4	129.2	111.5

E= 203.4 - 23.2 Ln C

E=Potential

C=Concentration (mg/L)

r= 0.999

Wet Chemistry QC Report C

CCV Report

Matrix: Water

APCL Service ID: 98-2332

Unit : mg/L

Analysis	Analysis Date	CCV1 True	CCV1 Found	CCV1 REC(%)	CCV2 True	CCV2 Found	CCV2 REC(%)	Control Limit
Nitrate as N	4/8/98	25	22.8	91	25	22.7	91	90-110
Chloride Cl- by IC	4/9/98	2.00	2.03	101	2.00	1.95	98	90-110
Nitrate (NO3-) as N by IC	4/9/98	1.50	1.54	102	1.50	1.51	101	90-110
Sulfate (So4--), by IC	4/9/98	7.50	7.24	97	7.50	7.22	96	90-110

Analysis	Analysis Date	CCV3 True	CCV3 Found	CCV3 REC(%)	CCV4 True	CCV4 Found	CCV4 REC(%)	Control Limit
Chloride Cl- by IC	4/9/98	2.00	1.99	100	2.00	2.18	109	90-110
Nitrate (NO3-) as N by IC	4/9/98	1.50	1.53	102	1.50	1.53	102	90-110
Sulfate (So4--), by IC	4/9/98	7.50	7.31	98	7.50	7.35	98	90-110

375E

MISCELLANEOUS

3757

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Analysis Anomaly Record

Batch #: 4t 9gw2407 Method: 300 - NO3 Matrix: W Date: 4/8/98

Samples Involved: 2332

- **Anomaly for MS/MSD/MD**
  - ☐ 1. MS/MSD out of control limit, sample matrix interference suspected
  - ☐ 2. MS or MSD out of control limit, but $\overline{MS}$ is O.K.
  - ☐ 3. One of MS/MSD, and $\overline{MS}$ out of control limit, but not enough sample for re-analysis
  - ☐ 4. Not enough sample for MS/MSD, LCS/LCSD may be used
  - ☐ 5. Spiked samples contain high concentration of analytes (>4 × spiked concentration)
  - ☐ 6. MS/MSD out of control limit, but post spike is O.K.
  - ☐ 7. MS/MSD out of control limit, due to the heterogenous matrix
  - ☐ 8. MS/MSD out of control limit, due to the very special matrix
  - ☐ 9. Not enough sample for matrix duplicate (MD)
- **Anomaly for Holding time (HT)**
  - ☐ 10. HT has been exceeded when received, authorized by the Client to carry on with the analyses
  - ☐ 11. Extraction HT was passed, authorized by the Client to carry on with the analyses
  - ☐ 12. Analysis HT was passed, authorized by the Client to carry on with the analyses
- **Surrogates Anomaly**
  - ☐ 13. Surrogate recovery out of control limit (see Level-1 Part III), sample matrix interference suspected
  - ☐ 14. Surrogate recovery out of control limit (see Level-1 Part III), but not enough sample for re-analysis
  - ☐ 15. Surrogate recovery out of control limit, due to very special matrix
  - ☐ 16. Surrogate diluted out (for highly contaminated samples)
  - ☐ 17. Lower surrogate recovery due to cleanup process
- **Chromatogram Pattern Anomaly**
  - ☐ 18. Not a typical gasoline chromatogram pattern
  - ☐ 19. Not a typical diesel chromatogram pattern
  - ☐ 20. Not a typical diesel chromatogram pattern, but similar to heavy-oil or motor oil
  - ☐ 21. Not a typical kerosene chromatogram pattern
  - ☐ 22. Not a typical jet fuel chromatogram pattern
  - ☐ 23. Not a complete PCB chromatogram pattern, interference/degration suspected
- **Other anomaly**

Problem Description: Parts of the samples pass holding time when request to run 300. SM 4500-NO3 are still in within holding time

Reason:

Analyst: Matt Date: 4/15/98

Note:

375E

P & Ch Laboratory
Magnolia Ave. Chino CA 91710
(909) 590-1828 Fax: (909) 590-1498

Nitrate (SM4500NO$_3$-D) Workshe

98W239 Matrix: W [Holding Time: 48 hours!!] Test Date: 4/8/98 Analyst:

Buffer solution _____ 1N H_2SO_4 _____ 18:59 SOP:

Calibration	STD Lot #	$C_{std} \times V_{std}/V_f = C_i$	Ln C_i	E_i, mV	$E = b - k \cdot \ln C$	Note
STD-1	W-	× / = mg-N/L			k = 23.2	
STD-2	W- 1855	× / = 2 mg-N/L		186.5	b = 203.4	
STD-3	W-	× / = 10 mg-N/L		151.4	C.C.=0.999 (≥ 0.995)	
STD-4	W-	× / = 25 mg-N/L		129.2	RSD= % (≤ 15%)	
STD-5	W-	× / = 50 mg-N/L		111.5		

Analysis Type	Sample ID or Lot #	pH Adjust Before | After	Pre-dilut. $X_0/X = f_1$	Measurement $10.0/V = f_2$	Potential E, mV	Calculation $C' = \exp\left(\frac{b-E}{k}\right)$	C (Sample) $C = f_1 f_2 C'$	Note & Anomal
CCV	Lot: W- 1855	Expected Conc.:	× /	= 25 mg-N/L	130.8	22.8 mg-N/L	REC. %	90-110 %
MB	BL Lot: T1069		/ =	10.0/ =	224.6	0.40 mg-N/L	ppm-N	
LCS2	BL Lot: T1069		/ =	10.0/ =	130.5	23.1 mg-N/L	ppm-N	
Sample-1	2332-1		/ =	10.0/ 1 = 10	199.9	11.63 mg-N/L	ppm-N	
MS: S-1	-5		/ =	10.0/ = 1	129.3	24.4 mg-N/L	ppm-N	
MSD: S-1	-5		/ =	10.0/ = 1	130.1	23.5 mg-N/L	ppm-N	
Sample 2	-2		/ =	10.0/ 0.5 = 20	210.4	14.8 mg-N/L	ppm-N	
Sample 3	-3		/ =	10.0/ 0.25 = 40	211.6	28.1 mg-N/L	ppm-N	
Sample 4	-4		/ =	10.0/ 1 = 10	215.7	5.9 mg-N/L	ppm-N	
Sample 5	-5		/ =	10.0/ 10 = 1	213.5	0.6 mg-N/L	ppm-N	
Sample 6	-6		/ =	10.0/ 0.25 = 40	216.5	22.7 mg-N/L	ppm-N	
Sample 7	-7		/ =	10.0/ 0.25 = 40	217.3	21.99 mg-N/L	ppm-N	
Sample 8	-8		/ =	10.0/ 10 = 1	183.0	2.4 mg-N/L	ppm-N	
Sample 9	-9		/ =	10.0/ 0.25 = 40	212	27.6 mg-N/L	ppm-N	
Sample 10	-10		/ =	10.0/ 1 = 10	216	5.1 mg-N/L	ppm-N	
Blank	Lot:		/ =	10.0/ =		mg-N/L	ppm-N	
LCS2	BL Lot: T1069		/ =	10.0/ =	131.3	22.3 mg-N/L	ppm-N	
Sample 11	-11		/ =	10.0/ 2 = 5	218.5	2.6 mg-N/L	ppm-N	
Sample 12	-12		/ =	10.0/ 10 = 1	214.0	0.6 mg-N/L	ppm-N	
Sample 13	2365-5		/ =	10.0/ =	202	1.03 mg-N/L	ppm-N	
Sample 14			/ =	10.0/ =		mg-N/L	ppm-N	
Sample 15			/ =	10.0/ =		mg-N/L	ppm-N	
Sample 16			/ =	10.0/ =		mg-N/L	ppm-N	
Sample 17			/ =	10.0/ =		mg-N/L	ppm-N	
Sample 18			/ =	10.0/ =	4/8/98	mg-N/L	ppm-N	
Sample 19			/ =	10.0/ =		mg-N/L	ppm-N	
Sample 20	2332-5		/ =	10.0/ =	219	0.51 mg-N/L	ppm-N	
Mtx Dup	clear		/ =	10.0/ =	130.9	22.7 mg-N/L	ppm-N	

Type	STD Lot #	$C_{STD}(\mu g/mL) \times V_{STD}(mL)/X(g \text{ or } mL) = T$	Spike Rec.	Ctl Limit (W/S)
MS	W- 1855	× / = 25 ppm	97.6%	81-118%/ 81-118%
MSD	W- ↓	× / = ↓ ppm	94.0%	.. ..
MS	W- 1856	× / = ↓ ppm	92.4%	81-118%/ 81-118%
MSD	W- ↓	× / = ↓ ppm	89.2%	.. ..

PQL/MDL (in ppm)	
PQL(w)	0.5
PQL(s)	2.5
MDL(w)	0.1
MDL(s)	0.5

Applied P & Ch Laboratory
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Tel: (909) 590-1828 Fax: (909) 590-1496

Solid Analysis (160.1, 160.2, 160.3) Worksheet

Batch # 98W2440 Matrix W Method: 160.1 Balance No. _____ Date: 4/13/98 Analyst: [illegible]

EPA 160.1 TDS – Total Dissolved (filterable) Solids — Dry for 1hr. or more at 180 °C

EPA 160.2 TSS – Total Suspended (nonfilterable) Soilds — Dry for 1hr. or more at 103-105 °C

EPA 160.3 TS – Total Solids — Dry for 1hr. or more at 103-105 °C

Other method (specify):

Result= $10^4 \times \Delta W \times f_1 / V$ SOP: G-8

#	Analysis Type	Sample ID (STD Lot #)	Treatment Ratio $V_f/X=f_1$	Volume V, mL	W_1 g	W_2 1st, g	W_2 2nd, g	$\Delta W = W_2 - W_1$, g	Results (ppm)	Note
1	Blank	T1069	1 =	100	101.1570	101.1572	101.1570	0.000	ND	A19
2	LCS	T1069	1 =	100	98.1621	98.2012	98.2010	0.0389	389	A39
3	Sample-1	2332-2	1 =	100	94.9601	96.8862	96.8857	1.9256	19256	31
4	MS on S-1	2401-5	1 =	100	93.1726	93.2310	93.2306	0.0580	580	090
5	MSD on S-1	1 -5	1 =	100	100.7015	100.7604	100.7601	0.0586	586	070
6	Sample-2	2332-8	1 =	100	109.5455	109.6621	109.6619	0.1164	1164	19
7	Sample-3	-9	1 =	100	107.4034	111.0356	111.0354	3.6320	36320	59
8	Sample-4	-10	1 =	100	98.3520	98.7856	98.7854	0.4334	4334	25
9	Sample-5	-3	1 =	100	108.6310	112.1894	112.1892	3.5582	35582	58
10	Sample-6	-4	1 =	100	110.7200	111.0512	111.0510	0.9310	9310	30
11	Sample-7	-5	1 =	100	108.9369	108.9370	108.9369	0.000	ND	35
12	Sample-8	-1	1 =	100	101.6104	102.1763	102.1760	0.5656	5656	P4
13	Sample-9	-6	1 =	100	99.2233	101.7421	101.7419	2.5186	25186	Y5
14	Sample-10	-7	1 =	100	113.6145	115.5680	115.5676	1.9531	19531	43
15	LCSD	T1069	1 =	100	106.1526	106.1924	106.1919	0.0393	393	K90
16	Sample-11	2332-12	1 =	100	99.2542	99.3270	99.3267	0.0725	725	3E7
17	Sample-12	-11	1 =	100	104.4138	104.8368	104.8368	0.4230	4230	W12
18	~~Sample-13~~ 4/13/98	~~-13~~	~~1 =~~	~~100~~	~~94.8445~~	~~94.8670~~	~~94.8667~~	~~0.0222~~	~~222~~	~~21~~
19	Sample-14	2378-1	1 =	100	99.2275	99.5535	99.5533	0.3258	3258	R1
20	Sample-15	2377-2	1 [illegible] 4/13/98	5	97.9890	99.4187	99.4184	1.4294	285880	P
21	Sample-16	2401-5	1 =	100	103.7166	103.7356	103.7353	0.0187	187	P8
22	Sample-17		1 =							
23	Sample-18		1 =							
24	Sample-19		1 =							
25	Sample-20		1 =							
26	Mtx Dup.	2401-5	1 =	100	101.7012	101.7204	101.7202	0.0190	190	P36

[illegible] 4/13/98

Type	STD Lot #	$C_{STD}(\mu g/mL) \times V_{STD}(mL)/X(g \text{ or } mL) = T$	Spike Rec.	Ctl Limit (W/S)
MS	W- 1983	2000 × 2.01 / 100 = 400 ppm	98.25 %	85-115 %/80-120 %
MSD	W- 1	× / = ppm	99.75 %	.. ..
LCS	W- 1982	× / = ppm	97.25 %	90-110 %/85-115 %
LCSD	W- 1	× / = ppm	98.25 %	.. ..

PQL/MDL (in ppm)	
PQL(w)	10
PQL(s)	50
MDL(w)	4
MDL(s)	20

APCL form 5-127, March 7, 1995. Ver. 1.0 No pencil. Use blue pen for record. Use red pen for correction.

FILE: [CUST.DOC.WET]TDS.TEX ROOT-FILE: TDS.ROOT.TEX CONTROL-FILE: TDS.000 1-Page file: TDS1.TEX

Control limits are subjected to change. The updated values are given in the latest version of APCL Technical Handbook Vol. 2

Analysis (160.1, 160.2, 160.3) Worksheet

Tel: (909) 590-1828 Fax: (909) 590-1498

Batch: 98W2502 Matrix: W Method: 160.1 Balance No. _____ Date: 4/15/98 Analyst: Z

EPA 160.1 TDS – Total Dissolved (filterable) Solids — Dry for 1hr. or more at 180 °C

EPA 160.2 TSS – Total Suspended (nonfilterable) Soilds — Dry for 1hr. or more at 103-105 °C

EPA 160.3 TS – Total Solids — Dry for 1hr. or more at 103-105 °C

Other method (specify): Result= $10^6 \times \Delta W \times f_1 / V$ SOP: G-81

#	Analysis Type	Sample ID (STD Lot #)	Treatment Ratio $V_f/X=f_1$	Volume V, mL	W_1 g	W_2 1st, g	W_2 2nd, g	$\Delta W = W_2 - W_1$, g	Results (ppm)	Note
1	Blank	T1069	/ =	100						
2	LCS	T1069	/ =	100						
3	Sample-1	2406-1	/ =	100	105.7350					16
4	MS on S-1		/ =	100						
5	MSD on S-1		/ =	100						
6	Sample-2	2406-2	/ =	100	97.6846					K
7	Sample-3	-5	/ =	100	104.6311					405
8	Sample-4	-8	/ =	100	99.6046					A
9	Sample-5	2388-1	/ =	100						
10	Sample-6		/ =							
11	Sample-7		/ =							
12	Sample-8		/ =							
13	Sample-9		/ =							
14	Sample-10		/ =							
15	LCSD	T1069	/ =	100	~~97.8667~~					L6
16	Sample-11	2332-1	/ =	100	97.8667	98.4270		0.5603	5603	46
17	Sample-12	-4	/ =	50	113.6151	114.0382		0.4231	8460	43 W
18	Sample-13	-7	/ =	100	98.2877	100.2760		1.9883	19883	L
19	Sample-14	-10	/ =	100	109.1196	109.5484		0.4288	4288	S5
20	Sample-15	~~2332-49~~ ~~2275-19~~	~~/ =~~	~~100~~	~~96.9096~~	~~104.4138~~	104.8922	~~0.4784~~	~~9568~~	~~W1~~
21	Sample-16	2275-25	/ =	25	98.2173	98.8187		0.6014	24056	Y2
22	Sample-17	-31	/ =	25	96.3881	96.9421		0.555	22222	95
23	Sample-18	-37	/ =	25	103.8720	104.5521		0.6791	27164	B
24	Sample-19	-43	/ =	100	106.5381	107.2451		0.807	8070	32
25	Sample-20		/ =							
26	Mtx Dup.		/ =	100						

Type	STD Lot #	$C_{STD}(\mu g/mL) \times V_{STD}(mL)/X(g \text{ or } mL) = T$	Spike Rec.	Ctl Limit (W/S)
MS	W-	× / = ppm	%	85-115 %/80-120 %
MSD	W-	× / = ppm	%	.. ..
LCS	W-	× / = ppm	%	90-110 %/85-115 %
LCSD	W-	× / = ppm	%	.. ..

PQL/MDL (in ppm)	
PQL(w)	10
PQL(s)	50
MDL(w)	4
MDL(s)	20

APCL form 5-127, March 7, 1995. Ver. 3.0 No pencil. Use blue pen for record. Use red pen for correction.

FILE: [CUST.DOC.WET]TDS.TEX ROOT-FILE: TDS_ROOT.TEX CONTROL-FILE: TDS.000 1-Page file: TDS1.TEX

Control limits are subjected to change. The updated values are given in the latest version of APCL Technical Handbook Vol. 2

DIONEX SCHEDULE - C:\DX\SCHEDULE\98W2407.SCH MAY 0 0 1998

Inj#	Sample Name	Method	Data File	Vol.	Dil.	Int.St
1	##98W2407 CCV W2261	..\E300-009	..\W2407Q01	1	1	1
2	MB RW1145	..\E300-009	..\W2407K01	1	1	1
	LCS W2104-100X	..\E300-009	..\W2407L01	1	1	1
	LCSD W2104-100X	..\E300-009	..\W2407J01	1	1	1
5	2275-5 F=500	..\E300-009	..\2275-501	1	500	1
6	2275-9 F=200	..\E300-009	..\2275-901	1	200	1
7	2275-19 F=80	..\E300-009	..\22751901	1	80	1
8	2275-25 F=4000	..\E300-009	..\22752501	1	4000	1
9	2275-31 F=2500	..\E300-009	..\22753101	1	2500	1
10	2275-37 F=4000	..\E300-009	..\22753701	1	4000	1
11	2275-43 F=1000	..\E300-009	..\22754301	1	1000	1
12	CCV W2261-100X	..\E300-009	..\W2407Q01.D12	1	1	1
13	2332-5 F=1	..\E300-009	..\2332-501.D13	1	1	1
14	$2332-5 MD F=1	..\E300-009	..\W2407D01.D14	1	1	1
15	$2332-5 MS F=1	..\E300-009	..\W2407M01.D15	1	1	1
16	$2332-5 MSD F=1	..\E300-009	..\W2407N01.D16	1	1	1
17	2332-1 F=1000	..\E300-009	..\2332-101.D17	1	1000	1
18	2332-2 F=2000	..\E300-009	..\2332-201.D18	1	2000	1
19	2332-3 F=5000	..\E300-009	..\2332-301.D19	1	5000	1
20	2332-4 F=1000	..\E300-009	..\2332-401.D20	1	1000	1
21	2332-6 F=5000	..\E300-009	..\2332-601.D21	1	5000	1
22	2332-7 F=2500	..\E300-009	..\2332-701.D22	1	2500	1
23	CCV W2261-100X	..\E300-009	..\W2407Q01.D23	1	1	1
24	2332-8 F=100	..\E300-009	..\2332-801.D24	1	100	1
25	2332-9 F=5000	..\E300-009	..\2332-901.D25	1	5000	1
26	2332-10 F=500	..\E300-009	..\23321001.D26	1	500	1
27	2332-11 F=500	..\E300-009	..\23321101.D27	1	500	1
[illegible]	2332-12 F=20	..\E300-009	..\23321201.D28	1	20	1
	CCV W2261-100X	..\E300-009	..\W2407Q01.D29	1	1	1
[illegible]	STO[P	..\STOP.MET		1	1	1

Comment:

DIONEX SCHEDULE - C:\DX\SCHEDULE\E300-009.SCH

MAR 3 0 1998

nj#	Sample Name	Method	Data File	Vol.	Dil.	Int.Std.
1	AUTOCAL1R	..\E300-009	..\W2261Q01	1	1	1
	AUTOCAL2R	..\E300-009	..\W2261Q01	1	1	
3	AUTOCAL3R	..\E300-009	..\W2261Q01	1	1	
4	AUTOCAL4R	..\E300-009	..\W2261Q01	1	1	
5	AUTOCAL5R	..\E300-009	..\W2261Q01	1	1	1
6	AUTOCAL6R	..\E300-009	..\W2261Q01	1	1	1
7	ICV-W2104-100X	..\E300-009	..\W2261Q01	1	1	1

Comment:

13760 Magn[illegible] Ave., Chino CA 91710
Tel: (909) [illegible]28 Fax: (909) 590-1498

Wet Reagent S[illegible]tion Logbook

STD Lot #	STD/Solution Description	Solvent Specification [Solvent Name/Supplier/Vol.]	Solute (or Stock Solution) Specif. [Solute Name/Supplier/Amount]	Treatment Description	Calculation (specify final unit)	Date M/D	Expire M/D	Preprd by	Vrfd by
W-1854	NaF-F	DI / APCL 1000 mL C-# Lot # RW1104	NaF / A / Am. 0.4420 C-# Lot # 04931 Conc.		× ——— = 200 ppm F	6/24 Y:97	6/24 Y:98	M	[illegible]
W-1855	KNO_3-N	DI / APCL / 100 mL C-# Lot # RW1104	KNO_3 / A / Am. 1.8048 C-# Lot # 04616 DW Conc. 99+%		× ——— = 2500 ppm NO_3-N	6/24 Y:97	6/24 Y:98	M	[illegible]
W-1856	KNO_3-N	DI / APCL / 1000 mL C-# Lot # RW1104	KNO_3 / EM / Am. 1.8048 C-# Lot # 9086 Conc. 99+%		× ——— = 250 ppm NO_3-N	6/24 Y:97	6/24 Y:98	M	[illegible]
W-1857	Na_2S	DI / APCL 1000 mL C-# Lot # T1064	See 1834 / Am. 0.7501 g C-# Lot # Conc.	9 < PH < 11	× ——— = 100 mg/L	6/24 Y:97	6/24 Y:97	Br	[illegible]
W-1858	Na_2S	/ / mL C-# Lot #	See 1835 / Am. 0.7501 g C-# Lot # Conc.		× ——— = 100 mg/L	6/24 Y:97	[illegible]		
W-1859	Sulfate	DI / APCL 1000 mL C-# Lot # RW1104	K_2SO_4 / A / Am. 1.8153 C-# Lot # 04306 DN Conc. 99+%		× ——— = 1000 ppm	6/24 Y:97	6/24 Y:98	M	[illegible]
1860 W-	STD check to BOD	/ / mL C-# Lot #	See W1767 / Am. C-# Lot # Conc. 99+%		× ——— =	6/25 Y:97	6/26 Y:97	[illegible]	[illegible]
W-1861	TOC (OC)	DI / APCL / 1000 mL C-# Lot # RW1104	KHP / EM / Am. 2.125 g C-# Lot # 9305 Conc. 99+%		× ——— = 1000 ppm	6/25 Y:97	6/26 Y:98	M	[illegible]
W-1862	FAS	DI / APCL 1000 mL C-# Lot # T1064	$(NH_4)_2Fe(SO_4)_2 \cdot 6H_2O$ Ald / Am. 2.212 g C-# 215406 Lot # 0624 KN Conc. 99+%		× ——— =	6/26 Y:97	7/26 Y:97	Br	[illegible]
W-1863	TOC (OC)	DI / APCL / 1000 mL C-# Lot # RW1104	KHP / EM / Am. 2.125 g C-# Lot # 9305 Conc. 99+%		× ——— = 1000 ppm -C	6/26 Y:97	6/26 Y:98	M	[illegible]
W-1864	TOC (OC)	DI / APCL / 100 mL C-# Lot # RW1104	KHP / J Kant Am. 0.53125 C-# Lot # Kant 3019131 Conc. 99+%		× ——— = 2500 ppm -C	6/26 Y:97	6/26 Y:98	M	[illegible]
1865 W-	STD check to BOD	/ / mL C-# Lot #	See W1767 / Am. C-# Lot # Conc.		× ——— =	6/27 Y:97	6/28 Y:97	[illegible]	[illegible]

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13760 Magnolia Ave., Chino CA 91710
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Wet Reagent Solution Logbook

STD Lot #	STD/Solution Description	Solvent Specification [Solvent Name/Supplier/Vol.]	Solute (or Stock Solution) Specif. [Solute Name/Supplier/Amount]	Treatment Description	Calculation (specify final unit)	Date M/D	Expire M/D	Preprd by	Vrfd by
W-1854	NaF-F	DI / APCL 1000 mL C-# Lot # RW1104	NaF / A / Am. 0.4424 C-# Lot # 04931J Conc.		× = 200 ppm F	6/24 Y:97	6/24 Y:98	M	[illegible]
W-1855	KNO_3-N	DI / APCL / 100 mL C-# Lot # RW1104	KNO_3 / A / Am. 1.8048 C-# Lot # 04616 KN Conc. 99+%		× = 2500 ppm NO_3-N	6/24 Y:97	6/24 Y:98	M	[illegible]
W-1856	KNO_3-N	DI / APCL / 1000 mL C-# Lot # RW1104	KNO_3 / EM / Am. 1.8048 C-# Lot # 9086 Conc. 99+%		× = 250 ppm NO_3-N	6/24 Y:97	6/24 Y:98	M	[illegible]
W-1857	Na_2S	DI / APCL 1000 mL C-# Lot # T1064	See 1834 / Am. 0.7501 g C-# Lot # Conc.	9 CPHCl	× = 100 mg S/L	6/24 Y:97	6/24 Y:97	Br	[illegible]
W-1858	Na_2S	/ / mL C-# Lot #	See 1835 / Am. 0.7501 g C-# Lot # Conc.		× = 100 mg S/L	6/24 Y:97	[illegible]		
W-1859	Sulfate	DI / APCL 1000 mL C-# Lot # RW1104	K_2SO_4 / A / Am. 1.8153 C-# Lot # 04306 DN Conc. 99+%		× = 1000 ppm	6/24 Y:97	6/24 Y:98	M	[illegible]
1860 W-	STD check to BOD	/ / mL C-# Lot #	See W1767 Am. C-# Lot # Conc. 99+%		× =	6/25 Y:97	6/26 Y:97	M	[illegible]
W-1861	TOC (OC)	DI / APCL / 1000 mL C-# Lot # RW1104	KHP / EM / Am. 2.125 g C-# Lot # 9305 Conc. 99+%		× = 1000 ppm	6/25 Y:97	6/26 Y:98	M	[illegible]
W-1862	FAS	DI / APCL 1000 mL C-# Lot # T1064	$(NH_4)_2Fe(SO_4)_2 \cdot 6H_2O$ Ald / Am. 2.212 g C-# 21540-6 Lot # 0624 KN Conc. 99+%		× =	6/26 Y:97	7/26 Y:97	Br	[illegible]
W-1863	TOC (OC)	DI / APCL / 1000 mL C-# Lot # RW1104	KHP / EM / Am. 2.125 g C-# Lot # 9305 Conc. 99+%		× = 1000 ppm -C	6/26 Y:97	6/26 Y:98	M	[illegible]
W-1864	TOC (OC)	DI / APCL / 100 mL C-# Lot # RW1104	KHP / J Kent Am. 0.53125 C-# Lot # Kent 3019131 Conc. 99+%		× = 2500 ppm -C	6/26 Y:97	6/26 Y:98	M	[illegible]
1865 W-	STD check to BOD	/ / mL C-# Lot #	See W1767 / Am. C-# Lot # Conc.		× =	6/27 Y:97	6/28 Y:97	M	[illegible]

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13760 Magnolia Ave. Chino CA 91710
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Wet Reagent Solution Logbook

STD Lot #	STD/Solution Description	Solvent Specification [Solvent Name/Supplier/Vol.]	Solute (or Stock Solution) Specif. [Solute Name/Supplier/Amount]	Treatment Description	Calculation (specify final unit)	Date M/D	Expire M/D	Preprd by	Vrfd by
W-1977	fulfamic acid	DI / APCL / 2000 mL C-# Lot # T1065	fulfamic acid / Acros / Am. 80g C-# 22207-0010 Lot # 77416 Conc. 98+%		× ——— = 0.4N	8/18 Y:97	8/18 Y:98	Br	[illegible]
1978 W-	STD check for BOD	/ / mL C-# Lot #	see W 1767 C-# Lot # Conc.		× ——— =	8/16 Y:97	8/19 Y:97	[illegible]	[illegible]
W-1979	FAS	/ / mL C-# Lot #	retitrat W 1907 / Am. C-# Lot # Conc.	W1908: K_2CrO_7 = 0.0140 N, K_2CrO_7 = 20.7 ml, FAS = 100 ml	$\frac{20.7 \times 0.0140}{100}$ = 0.0029/17	8/18 Y:97	9/18 Y:97	Br	[illegible]
1980 W-	STD check for BOD	/ / mL C-# Lot #	see W 1710 C-# Lot # Conc.		× ——— =	8/20 Y:97	8/21 Y:97	[illegible]	[illegible]
W-1981	phenolics	DI / APCL / 500 mL C-# Lot # T1065	phenolics / Ald / Am. 0.500g C-# 32844-1 Lot # 06406 Conc. 99+%		$\frac{0.5 \times 1000}{500}$ = 1000 mg/L	8/21 Y:97	8/21 Y:98	Br	[illegible]
1982 W-	K_2SO_4 STD for TDS	DI / APCL / 1000 mL C-# Lot # RW1112	K_2SO_4 / F / Am. 20.0g FW 174.27 C-# Lot # 966538 Conc.		$\frac{20000 \times mg}{1L}$ = 20000 ppm	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1983 W-	K_2SO_4 STD for TDS	DI / APCL / 1000 mL C-# Lot # RW1112	K_2SO_4 / F / Am. 20.0g F C-# Lot # 960712 Conc.		$\frac{20000 \times mg}{1L}$ = 20000 ppm	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1984 W-	HNO_3 for Cl^-	DI / APCL / 1000 mL C-# Lot # RW1112	HNO_3 / F / Am. 3ml C-# Lot # 971650 Conc. 69.77		× ——— =	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1985 W-	$Hg(NO_3)_2$ for Cl^-	DI / APCL / 3000 mL C-# Lot # RW1112	$Hg(NO_3)_2$ / Al / Am. 7.5g 23,042-1 C-# Lot # 13521LC Conc. 98%	Standard by STD NaCl	$\frac{10.0 \times 0.0141N}{4.7}$ = 0.0145	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1986 W-	Alkalinity STD	DI / APCL / 100 mL C-# Lot # RW1112	Na_2CO_3 / Baker / Am. 0.53g C-# 3602-01 Lot # C38088 Conc. 100%	equivalent 5000 ppm	× ——— =	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1987 W-	Alkalinity STD for LCS	DI / APCL / 1000 mL C-# Lot # RW1112	Na_2CO_3 / Baker / Am. 0.010g C-# 3602-01 Lot # C38088 Conc. 100%	equivalent 100 ppm	× ——— =	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1988 W-	$MgSO_4$	DI / APCL / 1000 mL C-# Lot # RW1112	$MgSO_4$ Mallinckrodt 22.5g C-# Lot # 4200KHSA Conc.		× ——— =	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]

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Appl... P & ... La...tor,
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Wet Reagent Solution Logbook

STD Lot #	STD/Solution Description	Solvent Specification [Solvent Name/Supplier/Vol.]	Solute (or Stock Solution) Specif. [Solute Name/Supplier/Amount]	Treatment Description	Calculation (specify final unit)	Date M/D	Expire M/D	Preprd by	Vrfd by
W-1977	Sulfamic acid	DI / APCL / 2000 mL C-# Lot # T1065	Sulfamic acid / Acros / Am. 80g C-# 22207-0010 Lot # 77416 / Conc. 98+%		× = 0.4N	8/18 Y:97	8/18 Y:98	Br	[illegible]
1978 W-	STD check for BOD	/ / mL C-# Lot #	See W 1767 C-# Lot # Conc.		× =	8/18 Y:97	8/19 Y:97	[illegible]	[illegible]
W-1979	FAS	/ / mL C-# Lot #	retitrate W 1907 / Am. C-# Lot # Conc.	W1908: K_2CrO_7 = 0.0140 N; K_2CrO_7 = 20.7 ml; FAS = 200 ml	$\frac{20.7 \times 0.0140}{100}$ = 0.002917	8/18 Y:97	9/18 Y:97	Br	[illegible]
1980 W-	STD check for BOD	/ / mL C-# Lot #	See W 1767 C-# Lot # Conc.		× =	8/20 Y:97	8/21 Y:97	[illegible]	[illegible]
W-1981	Phenolics	DI / APCL / 500 mL C-# Lot # T1065	Phenolics / Ald / Am. 0.500g C-# 32811-1 Lot # 06406BY Conc. 99+%		$\frac{0.5 \times 1000}{500}$ = 1000 mg/L	8/21 Y:97	8/21 Y:98	Br	[illegible]
1982 W-	K_2SO_4 STD for TDS	DI / APCL / 1000 mL C-# Lot # RW1112	K_2SO_4 / F / Am. 20.0g FW 174.27 C-# Lot # 966538 Conc.		$\frac{20000 \times mg}{1L}$ = 20000 ppm	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1983 W-	K_2SO_4 STD for TDS	DI / APCL / 1000 mL C-# Lot # RW1112	K_2SO_4 / F / Am. 20.0g F C-# Lot # 960712 Conc.		$\frac{20000 \times mg}{1L}$ = 20000 ppm	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1984 W-	HNO_3 for Cl^-	DI / APCL / 1000 mL C-# Lot # RW1112	HNO_3 / F / Am. 3ml C-# Lot # 971650 Conc. 69.77		× =	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1985 W-	$Hg(NO_3)_2$ for Cl^-	DI / APCL / 3000 mL C-# Lot # RW1112	$Hg(NO_3)_2$ / Al / Am. 7.5g 23,042-1 C-# Lot # 13521LG Conc. 98%	Standard by STD NaCl	$\frac{10.0 \times 0.0141N}{4.7}$ = 0.0145	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1986 W-	Alkalinity STD	DI / APCL / 100 mL C-# Lot # RW1112	Na_2CO_3 / Baker / Am. 0.53g C-# 3602-01 Lot # C38088 Conc. 100%	equivalent 5000 ppm	× =	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1987 W-	Alkalinity STD for LCS	DI / APCL / 1000 mL C-# Lot # RW1112	Na_2CO_3 / Baker / Am. 0.010g C-# 3602-01 Lot # C38088 Conc. 100%	equivalent 100 ppm	× =	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]
1988 W-	$MgSO_4$	DI / APCL / 1000 mL C-# Lot # RW1112	$MgSO_4$ Mallinckrodt 22.5g C-# Lot # 4200KHSA Conc.		× =	8/21 Y:97	8/21 Y:98	[illegible]	[illegible]

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