ARCADIS Geraghty Miller
BC Laboratory Number: 99-01424
Client Reference: ILM Groundwater

CASE NARRATIVE
Date: 05/11/99
Page 1

SAMPLE RECEIPT:

BC Laboratories, Inc (BCL) received a total of 18 samples, and 1 trip blank on 02-03-99 at 2050. The samples were collected by Harding Lawson on 02-03-99 - 02-04-99 and were received by a BCL courier from the site and transported to the laboratory. The samples were logged into the Laboratory Information Management System (LIMS) and BCL numbers were assigned to each sample. The result of the temperature check was 5.4 and 5.76 °C and was recorded on the cooler receipt form. No discrepancies were found on the chain of custody (COC) or the samples.

ORGANICS:

In accordance with the COC, EPA method 8260B for VOC's, 8015M for Fuel fingerprint were performed on designated samples. Copies of the Calibration, Method Blanks, LCS, duplicates, and MS/MDS if applicable are included in the following package. All holding times and quality control requirements were met except for the following:

EPA 8260

The method calibration standard associated with sample 99-01482-8TB, 9,10 and 11 did not meet established criteria for 2-Chloroethylvinyl ether by EPA 8260. Because this noncompliant compound was not detected in the associated sample, re-analysis was not required and not performed. The reports have been flagged accordingly.

INORGANICS:

In accordance with the COC, EPA method 6000/7000 for 17 metals and hexavalent chromium was performed on designated samples. Copies of the Calibration, Method Blanks, LCS, duplicates, and MS/MDS if applicable are included in the following package. All holding times and quality control requirements were met except for the following:

ARCADIS Geraghty Miller
BC Laboratory Number: 99-01424
Client Reference: ILM Groundwater

CASE NARRATIVE
Date: 05/11/99
Page 2

17 Metals

The matrix spike duplicate (MSD) associated with samples 99-01424-2, 3, 13 and 14 had high recovery of total Titanium outside the laboratory QC limits. The matrix spike (MS) and matrix spike duplicate (MSD) associated with samples 99-01424-2, 3, 13 and 14 had low recovery of total Antimony outside the laboratory QC limits. Accuracy was verified through LCSW. The reports have been flagged accordingly.

Hexavalent Chromium

The CCV recovery immediately following sample 99-01424-10 was 89 percent. The reports have been flagged accordingly.

Data Package reviewed by: CJ Cerny 5-11-99
Date

CHAIN OF CUSTODY

BC LABORATORIES, INC. 4100 Atlas Court - Bakersfield, CA 93308 (805) 327-4911 - FAX (805) 327-1918

R To: IESI/AGM

Name: IESI
Address: 3990 WESTERLY PL STE 210
City: NEWPORT BEACH
State: CA Zip: 92660
Attn: JO ANN ORNELAS
Phone: (949) 795-5035

Project: ILM GROUNDWATER
Project #: 280.02
Sampler Name: BRYAN J. HAWES
Submission #: C9-1424

Lab #	Sample Description	Date & Time Sampled	8260 (ILM LIST)	8015M TPH-GS	17 METALS + AI + Ti	HEXA.-CHROM.	HOLD	MATRIX (DW - Drinking Water, GW - Ground Water, WW - Waste Water, S - Soil, O - Oil, SL - Sludge, M - Miscellaneous)	Turn Around Time Requested	Number and Container Type
-1	BL-9-9	2-3-99 @ 0900					X	S	5D	1 RING
-2	-11.5	@ 0910			X					
-3	-21.5	@ 0920			X					
-4	-31.5	@ 0935					X			
-5	-41.5	@ 0950					X			
-6	-51.5	@ 1000					X			
-7	-61.5	@ 1020					X			
-8	TB-2	1-28-99	X					M		1 VOA
-9	FB-2	2-3-99 @ 1500	X	X	X	X				ASST.
-10	RB-2	@ 1530	X	X	X	X				ASST.
-11	BLANK-1	@ 1510	X							1 VOA
-12	BL-6-8.5	@ 1555					X	S	5D	1 RING
-13	BL-6-11	@ 1605			X		X BH			
-14	BL-6-21	@ 1620			X		X BH			
-15	BL-6-31	@ 1640					X			

DISTRIBUTION CS RC MA

NUMBERING CHECKED BY

Billing Information:

Name: ARCADIS GERAGHTY & MILLER
Address: 1400 N. HARBOR STE. 700
City FULLERTON State CA Zip 92835
Attention: DERRICK WILLIS
PO # 280.02

Report Drinking Water on State Form ? Y / N
Send Copy to State of Calif. Y / N

Comments: SEND EDDs TO:
IESI - JOANN E-MAIL @: JP052263@AOL.COM
AGM - DERRICK E-MAIL: (ON FILE)

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature]	2-3-99	17:36
[signature]	[signature]	2-3-99	20:50

BC Lab. Field Service

Time : Miles:
Equipment: Flat Rate:

Revised 5/97....Sample Disposal by BC Labs may be billed at $5.00 / sample for non-aqueous Samples:

332

BOE-C6-0234271

CHAIN OF CUSTODY

BC LABORATORIES, INC. 4100 Atlas Court - Bakersfield, CA 93308 (805) 327-4911 - FAX (805) 327-1918

Report To: IESI & AGM

Name: IESI

Address: 3990 WESTERLY PL STE 210

City: NEWPORT BEACH

State: CA Zip: 92660

Attn: JOANN ORNELAS

Phone: (949) 795-5035

Project: ILM GROUNDWATER

Project #: 280.02

Sampler Name: BRYAN J. HAWES

Submission #: 99-1424

Lab #	Sample Description	Date & Time Sampled	8260 (ILM LIST)	8015M TPH-GF	17 METALS + Al + Ti	HEXA-CHROM.	HOLD	MATRIX (DW - Drinking Water, GW - Ground Water, WW - Waste Water, S - Soil, O - Oil, SL - Sludge, M - Miscellaneous)	Turn Around Time Requested	Number and Container Type
-16	BL-6-33.7	2-3-99 @ 1645					X	S	5D	1 RING
-17	BL-6-41	↓ @ 1650					X	↓	↓	↓
-18	BL-6-51	@ 1700					X			
-19	BL-6-61	@ 1715					X			

Billing Information:

Name: ARCADIS GERAGHTY & MILLER

Address: 1400 N. HARBOR STE 700

City FULLERTON State CA Zip 92835

Attention: DERRICK WILLIS

PO # 280.02

BC Lab. Field Service

Time: Miles:

Equipment: Flat Rate:

Report Drinking Water on State Form? Y/N

Send Copy to State of Calif. Y/N

Relinquished by: (Signature)

Relinquished by: (Signature) Jay Mitchell

Relinquished by: (Signature)

Relinquished by: (Signature)

Comments: SEND EDDs TO:
IESI - JOANN E-MAIL: JP052263@AOL.COM
AGM - DERRICK E-MAIL: (ON FILE)

Received by: (Signature) Jay Mitchell Date: 2-3-99 Time: 17:36

Received by: (Signature) Chrissy Ford Date: 2-3-99 Time: 20:50

Received by: (Signature) Date: Time:

Received by: (Signature) Date: Time:

Revised 5/97....Sample Disposal by BC Labs may be billed at $5.00 / sample for non-aqueous Samples:

BOE-C6-0234272

BC LABORATORIES INC. **SAMPLE RECEIPT FORM** Rev. No.6 10/13/98 Page ___ Of ___

Submission #: 99-1424 Project Code:

SHIPPING INFORMATION

[illegible]ral Express ☐ UPS ☐ Hand Delivery ☐

[illegible] Lab Field Service ☒ Other ☐ (Specify) _____

SHIPPING CONTAINER

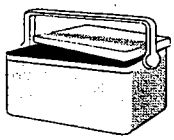
Ice Chest ☒ None ☐

Box ☐ Other ☐ (Specify) _____

Refrigerant: Ice ☒ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☒ Intact? Yes ☒ No ☐ Containers ☒ Intact? Yes ☒ No ☒ None ☐ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐



Ice Chest ID Blue/White Date/Time 2/3/99 21:35
Temperature: 5.7 °C
Thermometer ID: 17 Analyst Init BFORD
Emissivity .90
Container 1 Blank

Ice Chest ID _____ Date/Time _____
Temperature: _____ °C
Thermometer ID: _____ Analyst Init _____
Emissivity _____
Container _____

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	8	9	10	11	12
QT GENERAL MINERAL/ GENERAL PHYSICAL																								
PT PE UNPRESERVED																								
QT INORGANIC CHEMICAL METALS																								
PT INORGANIC CHEMICAL METALS																								
PT CYANIDE																								
PT NITROGEN FORMS																								
PT TOTAL SULFIDE																								
2oz. NITRATE / NITRITE																								
100ml TOTAL ORGANIC CARBON																								
[illegible]OX																								
[illegible]HEMICAL OXYGEN DEMAND																								
100ml PHENOLICS																								
40ml VOA VIAL TRAVEL BLANK																								
40ml VOA VIAL																								
QT EPA 413.1, 413.2, 418.1																								
PT ODOR																								
RADIOLOGICAL																								
BACTERIOLOGICAL																								
PT EPA 504																								
QT EPA 508/608/8080																								
QT EPA 515.1/8150																								
QT EPA 525																								
QT EPA 525 TRAVEL BLANK																								
100ml EPA 547																								
100ml EPA 531.1																								
QT EPA 548																								
QT EPA 549																								
QT EPA 632																								
QT EPA 8015M																								
QT OA/QC																								
QT AMBER																								
8 OZ. JAR																								
32 OZ. JAR																								
SOIL SLEEVE	1	1	1	1	1	1	1					1	1	1	1	1	1	1	1					
PCB VIAL																								
[illegible]STIC BAG																								

Comments:

Sample Numbering Completed By: [illegible] Date/Time: 2/4 9:10

[F:\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

BC LABORATORIES INC. **SAMPLE RECEIPT FORM** Rev. No.6 10/13/98 Page ___ Of ___

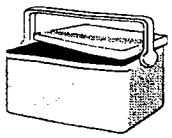
Submission #: 9C1-1424 Project Code:

SHIPPING INFORMATION	SHIPPING CONTAINER
Federal Express ☐ UPS ☐ Hand Delivery ☐	Ice Chest ☒ None ☐
BC Lab Field Service ☒ Other ☐ (Specify) _____	Box ☐ Other ☐ (Specify) _____

Refrigerant: Ice ☒ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☒ Intact? Yes ☒ No ☐ | Containers ☒ Intact? Yes ☒ No ☒ | None ☒ Comments: DT 2/3/99

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐



Ice Chest ID Red Big Date/Time 2/3/99 21:30
Temperature: 5.4 °C
Thermometer ID: 17 Analyst Init CFORD
Emissivity .90
Container Pt PE

Ice Chest ID _____ Date/Time _____
Temperature: _____ °C
Thermometer ID: _____ Analyst Init _____
Emissivity _____
Container _____

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8/10	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
QT GENERAL MINERAL/ GENERAL PHYSICAL									1	1														
PT PE UNPRESERVED																								
QT INORGANIC CHEMICAL METALS									1	1														
PT INORGANIC CHEMICAL METALS																								
PT CYANIDE																								
PT NITROGEN FORMS																								
PT TOTAL SULFIDE																								
2oz. NITRATE / NITRITE																								
100ml TOTAL ORGANIC CARBON																								
QT TOX																								
PT CHEMICAL OXYGEN DEMAND																								
100ml PHENOLICS																								
40ml VOA VIAL TRAVEL BLANK								1																
40ml VOA VIAL									3	3	1													
QT EPA 413.1, 413.2, 418.1																								
PT ODOR																								
RADIOLOGICAL																								
BACTERIOLOGICAL																								
PT EPA 504																								
QT EPA 508/608/8080																								
QT EPA 515.1/8150																								
QT EPA 525																								
QT EPA 525 TRAVEL BLANK																								
100ml EPA 547																								
100ml EPA 531.1																								
QT EPA 548																								
QT EPA 549																								
QT EPA 632																								
QT EPA 8015M																								
QT QA/QC																								
QT AMBER									1	1														
8 OZ. JAR																								
32 OZ. JAR																								
SOIL SLEEVE																								
PCB VIAL																								
PLASTIC BAG																								

Comments:

Sample Numbering Completed By: RL Date/Time: 2/4 9:10 [F:\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

BC LABORATORIES, INC.

FIELD TEMPERATURE FORM

Date: 2-3-99

Time: 17:36

Completed By: JM

Temperature: 2 C

Type of bottle Used: TEMP BLANK

Transportation Container: COOLER

Refrigerant: W ICE

Custody Seals: YES

Comments:

Samples were picked up at: LOS ANGELES HLA

From: (signature if possible)

BC LABORATORIES, INC.

FIELD TEMPERATURE FORM

Date: 2-3-99

Time: 17:36

Completed By: JM

Temperature: 2 C

Type of bottle Used: TEMP BLANK

Transportation Container: COOLER

Refrigerant: W ICE

Custody Seals: YES

Comments:

Samples were picked up at: LOS ANGELES HLA

From: (signature if possible)

BC LABORATORIES

TOTAL CONCENTRATIONS
(California Code of Regulations, Title 22, Section 66261)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/16/99
Date Received: 02/03/99
Laboratory No.: 99-01424-2

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: BL-2-11.5

Title 22 Waste Type: Type i: Millable Solid - No Free Liquid
Sample Collected By: BRYAN J. HAWES

Constituents		Sample Results	Units	Method P.Q.L.	Method	Date Prepared	Date Analyzed	Dilution Factor	Regulatory Criteria STLC mg/L	Regulatory Criteria TTLC mg/kg
Antimony	*1	0.72	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	15.	500.
Arsenic		5.2	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	5.0	500.
Barium		191.	mg/kg	5.0	SW-6010	02/08/99	02/11/99	2.	100.	10000.
Beryllium		0.92	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	0.75	75.
Cadmium		None Detected	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	1.0	100.
Chromium		26.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	560.	2500.
Cobalt		12.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	80.	8000.
Copper		29.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	25.	2500.
Lead		5.5	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	5.0	1000.
Mercury		None Detected	mg/kg	0.2	SW-7471	02/08/99	02/09/99	12.5	0.2	20.
Molybdenum		None Detected	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	350.	3500.
Nickel		21.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	20.	2000.
Selenium		1.3	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	1.0	100.
Silver		None Detected	mg/kg	1.0	SW-6010	02/08/99	02/11/99	2.	5.0	500.
Thallium		None Detected	mg/kg	5.0	SW-6010	02/08/99	02/11/99	2.	7.0	700.
Vanadium		59.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	24.	2400.
Zinc		73.	mg/kg	1.0	SW-6010	02/08/99	02/11/99	2.	250.	5000.
Other Tests:										
Aluminum		22500.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.		
Titanium	*1	1710.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.		

(See Last Page for Comments, Definitions, and References)

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

4100 Atlas Ct. · Bakersfield, CA 93308 · (805) 327-4911 · FAX (805) 327-1918

BC LABORATORIES

TOTAL CONCENTRATIONS
(California Code of Regulations, Title 22, Section 66261)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/16/99
Date Received: 02/03/99
Laboratory No.: 99-01424-2

Sample Description: 280.02, ILM GROUNDWATER, BL-2-11.5, 02/03/99 @ 09:10AM, BRYAN J. HAWES

Comment: All above constituents are reported on an as received (wet) sample basis. Results reported represent totals (TTLC) as sample subjected to appropriate techniques to determine total levels.

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).
STLC = Soluble Threshold Limit Concentration
TTLC = Total Threshold Limit Concentration

REFERENCES:
SW = "Test Methods for Evaluating Solid Wastes Physical/Chemical Methods", EPA-SW-846.

Flag Explanations:
*1 = Matrix spike recoveries not within established limits. Results may be biased.

for Dan Schultz
Laboratory Director

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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4100 Atlas Ct. · Bakersfield, CA 93308 · (805) 327-4911 · FAX (805) 327-1918

BC LABORATORIES

TOTAL CONCENTRATIONS
(California Code of Regulations, Title 22, Section 66261)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/16/99
Date Received: 02/03/99
Laboratory No.: 99-01424-3

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: BL-2-21.5

Title 22 Waste Type: Type i: Millable Solid - No Free Liquid
Sample Collected By: BRYAN J. HAWES

Constituents	Sample Results	Units	Method P.Q.L.	Method	Date Prepared	Date Analyzed	Dilution Factor	Regulatory Criteria STLC mg/L	Regulatory Criteria TTLC mg/kg
Antimony	*1None Detected	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	15.	500.
Arsenic	5.2	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	5.0	500.
Barium	182.	mg/kg	5.0	SW-6010	02/08/99	02/11/99	2.	100.	10000.
Beryllium	1.0	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	0.75	75.
Cadmium	None Detected	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	1.0	100.
Chromium	25.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	560.	2500.
Cobalt	13.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	80.	8000.
Copper	38.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	25.	2500.
Lead	6.5	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	5.0	1000.
Mercury	None Detected	mg/kg	0.2	SW-7471	02/08/99	02/09/99	12.5	0.2	20.
Molybdenum	None Detected	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	350.	3500.
Nickel	21.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	20.	2000.
Selenium	1.0	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	1.0	100.
Silver	None Detected	mg/kg	1.0	SW-6010	02/08/99	02/11/99	2.	5.0	500.
Thallium	None Detected	mg/kg	5.0	SW-6010	02/08/99	02/11/99	2.	7.0	700.
Vanadium	64.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	24.	2400.
Zinc	76.	mg/kg	1.0	SW-6010	02/08/99	02/11/99	2.	250.	5000.
Other Tests:									
Aluminum	23900.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.		
Titanium	*1 1600.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.		

(See Last Page for Comments, Definitions, and References)

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4100 Atlas Ct. · Bakersfield, CA 93308 · (805) 327-4911 · FAX (805) 327-1918

TOTAL CONCENTRATIONS
(California Code of Regulations, Title 22, Section 66261)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/16/99
Date Received: 02/03/99
Laboratory No.: 99-01424-3

Sample Description: 280.02, ILM GROUNDWATER, BL-2-21.5, 02/03/99 @ 09:20AM, BRYAN J. HAWES

Comment: All above constituents are reported on an as received (wet) sample basis. Results reported represent totals (TTLC) as sample subjected to appropriate techniques to determine total levels.

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).
STLC = Soluble Threshold Limit Concentration
TTLC = Total Threshold Limit Concentration

REFERENCES:
SW = "Test Methods for Evaluating Solid Wastes Physical/Chemical Methods", EPA-SW-846.

Flag Explanations:
*1 = Matrix spike recoveries not within established limits. Results may be biased.

For Dan Schultz
Laboratory Director

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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4100 Atlas Ct. · Bakersfield, CA 93308 · (805) 327-4911 · FAX (805) 327-1918

BC LABORATORIES

WATER ANALYSIS
(METALS)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/18/99
Date Received: 02/03/99
Laboratory No.: 99-01424-9

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: FB-2
Sampling Date/Time: 02/03/99 @ 03:00PM
Sample Collected By: BRYAN J. HAWES

Constituents	Results	Units	P.Q.L.	Method	Date Prepared	Date Analyzed	Dilution Factor
Hexavalent Chromium	None Detected	µg/L	2.	EPA-7196	02/04/99	02/04/99	1
Total Aluminum	None Detected	µg/L	50.	EPA-6010	02/05/99	02/08/99	1
Total Antimony	None Detected	µg/L	100.	EPA-6010	02/05/99	02/08/99	1
Total Arsenic	None Detected	µg/L	2.	SM-3114B	02/08/99	02/09/99	1
Total Barium	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Beryllium	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Cadmium	None Detected	µg/L	5.	EPA-6010	02/05/99	02/08/99	1
Total Chromium	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Cobalt	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Copper	26.	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Lead	None Detected	µg/L	5.	EPA-7421	02/05/99	02/09/99	1
Total Mercury	None Detected	µg/L	0.2	EPA-7470	02/08/99	02/08/99	1
Total Molybdenum	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Nickel	None Detected	µg/L	50.	EPA-6010	02/05/99	02/08/99	1
Total Selenium	None Detected	µg/L	2.	SM-3114B	02/08/99	02/09/99	1
Total Silver	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Titanium	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Thallium	None Detected	µg/L	5.0	EPA-7841	02/05/99	02/10/99	1
Total Vanadium	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Zinc	None Detected	µg/L	50.	EPA-6010	02/05/99	02/08/99	1

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).

Dan Schultz
Laboratory Director

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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BC LABORATORIES

WATER ANALYSIS
(METALS)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/18/99
Date Received: 02/03/99
Laboratory No.: 99-01424-10

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: RB-2
Sampling Date/Time: 02/03/99 @ 03:30PM
Sample Collected By: BRYAN J. HAWES

Constituents	Results	Units	P.Q.L.	Method	Date Prepared	Date Analyzed	Dilution Factor
Hexavalent Chromium	*1 None Detected	µg/L	2.	EPA-7196	02/04/99	02/04/99	1
Total Aluminum	None Detected	µg/L	50.	EPA-6010	02/05/99	02/08/99	1
Total Antimony	None Detected	µg/L	100.	EPA-6010	02/05/99	02/08/99	1
Total Arsenic	None Detected	µg/L	2.	SM-3114B	02/08/99	02/09/99	1
Total Barium	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Beryllium	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Cadmium	None Detected	µg/L	5.	EPA-6010	02/05/99	02/08/99	1
Total Chromium	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Cobalt	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Copper	30.	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Lead	None Detected	µg/L	5.	EPA-7421	02/05/99	02/09/99	1
Total Mercury	None Detected	µg/L	0.2	EPA-7470	02/08/99	02/08/99	1
Total Molybdenum	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Nickel	None Detected	µg/L	50.	EPA-6010	02/05/99	02/08/99	1
Total Selenium	None Detected	µg/L	2.	SM-3114B	02/08/99	02/09/99	1
Total Silver	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Titanium	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Thallium	None Detected	µg/L	5.0	EPA-7841	02/05/99	02/10/99	1
Total Vanadium	None Detected	µg/L	10.	EPA-6010	02/05/99	02/08/99	1
Total Zinc	None Detected	µg/L	50.	EPA-6010	02/05/99	02/08/99	1

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).

Flag Explanations:
*1 = CCV recovery not within method limits.
CCV recovery was 89% immediately following the sample.

For Dan Schultz
Laboratory Director

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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BC LABORATORIES

TOTAL CONCENTRATIONS
(California Code of Regulations, Title 22, Section 66261)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/16/99
Date Received: 02/03/99
Laboratory No.: 99-01424-13

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: BL-6-11

Title 22 Waste Type: Type i: Millable Solid - No Free Liquid
Sample Collected By: BRYAN J. HAWES

Constituents	Sample Results	Units	Method P.Q.L.	Method	Date Prepared	Date Analyzed	Dilution Factor	Regulatory Criteria STLC mg/L	Regulatory Criteria TTLC mg/kg
Antimony	*1None Detected	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	15.	500.
Arsenic	6.4	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	5.0	500.
Barium	165.	mg/kg	5.0	SW-6010	02/08/99	02/11/99	2.	100.	10000.
Beryllium	0.97	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	0.75	75.
Cadmium	None Detected	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	1.0	100.
Chromium	26.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	560.	2500.
Cobalt	13.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	80.	8000.
Copper	34.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	25.	2500.
Lead	6.0	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	5.0	1000.
Mercury	None Detected	mg/kg	0.2	SW-7471	02/08/99	02/09/99	12.5	0.2	20.
Molybdenum	None Detected	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	350.	3500.
Nickel	22.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	20.	2000.
Selenium	1.3	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	1.0	100.
Silver	None Detected	mg/kg	1.0	SW-6010	02/08/99	02/11/99	2.	5.0	500.
Thallium	None Detected	mg/kg	5.0	SW-6010	02/08/99	02/11/99	2.	7.0	700.
Vanadium	65.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	24.	2400.
Zinc	77.	mg/kg	1.0	SW-6010	02/08/99	02/11/99	2.	250.	5000.
Other Tests:									
Aluminum	22800.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.		
Titanium	*1 1890.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.		

(See Last Page for Comments, Definitions, and References)

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TOTAL CONCENTRATIONS
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ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/16/99
Date Received: 02/03/99
Laboratory No.: 99-01424-13

Sample Description: 280.02, ILM GROUNDWATER, BL-6-11, 02/03/99 @ 04:05PM, BRYAN J. HAWES

Comment: All above constituents are reported on an as received (wet) sample basis. Results reported represent totals (TTLC) as sample subjected to appropriate techniques to determine total levels.

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).
STLC = Soluble Threshold Limit Concentration
TTLC = Total Threshold Limit Concentration

REFERENCES:
SW = "Test Methods for Evaluating Solid Wastes Physical/Chemical Methods", EPA-SW-846.

Flag Explanations:
*1 = Matrix spike recoveries not within established limits. Results may be biased.

For Dan Schultz
Laboratory Director

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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TOTAL CONCENTRATIONS
(California Code of Regulations, Title 22, Section 66261)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/16/99
Date Received: 02/03/99
Laboratory No.: 99-01424-14

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: BL-6-21

Title 22 Waste Type: Type i: Millable Solid - No Free Liquid
Sample Collected By: BRYAN J. HAWES

Constituents	Sample Results	Units	Method P.Q.L.	Method	Date Prepared	Date Analyzed	Dilution Factor	Regulatory Criteria STLC mg/L	Regulatory Criteria TTLC mg/kg
Antimony	*1None Detected	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	15.	500.
Arsenic	5.6	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	5.0	500.
Barium	194.	mg/kg	5.0	SW-6010	02/08/99	02/11/99	2.	100.	10000.
Beryltium	0.93	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	0.75	75.
Cadmium	None Detected	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	1.0	100.
Chromium	26.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	560.	2500.
Cobalt	14.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	80.	8000.
Copper	44.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	25.	2500.
Lead	5.9	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	5.0	1000.
Mercury	None Detected	mg/kg	0.2	SW-7471	02/08/99	02/09/99	12.5	0.2	20.
Molybdenum	None Detected	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	350.	3500.
Nickel	21.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.	20.	2000.
Selenium	1.2	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	1.0	100.
Silver	None Detected	mg/kg	1.0	SW-6010	02/08/99	02/11/99	2.	5.0	500.
Thallium	None Detected	mg/kg	5.0	SW-6010	02/08/99	02/11/99	2.	7.0	700.
Vanadium	67.	mg/kg	0.5	SW-6010	02/08/99	02/11/99	2.	24.	2400.
Zinc	97.	mg/kg	1.0	SW-6010	02/08/99	02/11/99	2.	250.	5000.
Other Tests:									
Aluminum	21500.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.		
Titanium	*1 1900.	mg/kg	2.5	SW-6010	02/08/99	02/11/99	2.		

(See Last Page for Comments, Definitions, and References)

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TOTAL CONCENTRATIONS
(California Code of Regulations, Title 22, Section 66261)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/16/99
Date Received: 02/03/99
Laboratory No.: 99-01424-14

Sample Description: 280.02, ILM GROUNDWATER, BL-6-21, 02/03/99 @ 04:20PM, BRYAN J. HAWES

Comment: All above constituents are reported on an as received (wet) sample basis. Results reported represent totals (TTLC) as sample subjected to appropriate techniques to determine total levels.

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).
STLC = Soluble Threshold Limit Concentration
TTLC = Total Threshold Limit Concentration

REFERENCES:
SW = "Test Methods for Evaluating Solid Wastes Physical/Chemical Methods", EPA-SW-846.

Flag Explanations:
*1 = Matrix spike recoveries not within established limits. Results may be biased.

For Dan Schultz
Laboratory Director

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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BC LABORATORIES

EPA 8015M
Fuel Identification / Quantitation Summary

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/18/99
Date Received: 02/03/99
Laboratory No.: 99-01424-9

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: FB-2
Sample Matrix: Water
Sample Collected By: BRYAN J. HAWES

Date Collected: 02/03/99 @ 03:00PM
Date Extracted: 02/05/99
Date Analyzed: 02/11/99
Dilution Used: 1

Constituents	Analysis Results	Reporting Units	Practical Quantitation Limit
Stoddard / White Spirits	None Detected	µg/L	200.
JP 4	None Detected	µg/L	1000.
JP 5	None Detected	µg/L	1000.
JP 6	None Detected	µg/L	1000.
JP 8	None Detected	µg/L	200.
Kerosene / Jet Fuel	None Detected	µg/L	200.
Diesel	None Detected	µg/L	200.
Crude Oil	None Detected	µg/L	1000.
Hydraulic Oil	None Detected	µg/L	1000.
Waste Oil	None Detected	µg/L	1000.
Motor Oil	None Detected	µg/L	1000.
Surrogate % Recovery	72.	%	32-143

METHOD: 8015M DOHS LUFT MANUAL
Boiling Range: 70 - 300 C

Mixtures of hydrocarbons are identified by a boiling point range and a fingerprint. Hydrocarbons that fall within a boiling range but do not exhibit the pattern are quantitated versus the fuel that corresponds with the boiling range, but are qualified with a note.

California D.O.H.S. Cert #1186, AZ License: AZ0345

Stuart G. Buttram
Department Supervisor

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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BC LABORATORIES

EPA 8015M
Fuel Identification / Quantitation Summary

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/18/99
Date Received: 02/03/99
Laboratory No.: 99-01424-10

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: RB-2
Sample Matrix: Water
Sample Collected By: BRYAN J. HAWES

Date Collected: 02/03/99 @ 03:30PM
Date Extracted: 02/05/99
Date Analyzed: 02/11/99
Dilution Used: 1

Constituents	Analysis Results	Reporting Units	Practical Quantitation Limit
Stoddard / White Spirits	None Detected	µg/L	200.
JP 4	None Detected	µg/L	1000.
JP 5	None Detected	µg/L	1000.
JP 6	None Detected	µg/L	1000.
JP 8	None Detected	µg/L	200.
Kerosene / Jet Fuel	None Detected	µg/L	200.
Diesel	None Detected	µg/L	200.
Crude Oil	None Detected	µg/L	1000.
Hydraulic Oil	None Detected	µg/L	1000.
Waste Oil	None Detected	µg/L	1000.
Motor Oil	None Detected	µg/L	1000.
Surrogate % Recovery	66.	%	32-143

METHOD: 8015M DOHS LUFT MANUAL
Boiling Range: 70 - 300 C

Mixtures of hydrocarbons are identified by a boiling point range and a fingerprint. Hydrocarbons that fall within a boiling range but do not exhibit the pattern are quantitated versus the fuel that corresponds with the boiling range, but are qualified with a note.

California D.O.H.S. Cert. #1186, AZ License: AZ0345

Stuart G. Buttram
Department Supervisor

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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BC LABORATORIES

Volatile Organic Analysis
(EPA Method 8260)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/11/99
Date Received: 02/03/99
Laboratory No.: 99-01424-8TB

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: TB-2
Sample Matrix: Water
Sample Collected By: BRYAN J. HAWES

Date Collected: 01/28/99
Date Extracted: 02/06/99
Date Analyzed: 02/06/99
Dilution Used: 1

Constituents	Analysis Results	Reporting Units	Practical Quantitation Limit	
Benzene	None Detected	µg/L	0.5	
Bromobenzene	None Detected	µg/L	0.5	
Bromochloromethane	None Detected	µg/L	0.5	
Bromodichloromethane	None Detected	µg/L	0.5	
Bromoform	None Detected	µg/L	0.5	
Bromomethane	None Detected	µg/L	0.5	
n-Butylbenzene	None Detected	µg/L	0.5	
sec-Butylbenzene	None Detected	µg/L	0.5	
tert-Butylbenzene	None Detected	µg/L	0.5	
Carbon tetrachloride	None Detected	µg/L	0.5	
Chlorobenzene	None Detected	µg/L	0.5	
Chloroethane	None Detected	µg/L	0.5	
2-Chloroethylvinyl ether	None Detected	µg/L	20.	*1
Chloroform	None Detected	µg/L	0.5	
Chloromethane	None Detected	µg/L	0.5	
2-Chlorotoluene	None Detected	µg/L	0.5	
4-Chlorotoluene	None Detected	µg/L	0.5	
Dibromochloromethane	None Detected	µg/L	0.5	
1,2-Dibromo-3-Chloropropane	None Detected	µg/L	0.5	
1,2-Dibromoethane	None Detected	µg/L	0.5	
Dibromomethane	None Detected	µg/L	0.5	
1,2-Dichlorobenzene	None Detected	µg/L	0.5	
1,3-Dichlorobenzene	None Detected	µg/L	0.5	
1,4-Dichlorobenzene	None Detected	µg/L	0.5	
Dichlorodifluoromethane	None Detected	µg/L	0.5	
1,1-Dichloroethane	None Detected	µg/L	0.5	
1,2-Dichloroethane	None Detected	µg/L	0.5	
1,1-Dichloroethene	None Detected	µg/L	0.5	
cis-1,2-Dichloroethene	None Detected	µg/L	0.5	
trans-1,2-Dichloroethene	None Detected	µg/L	0.5	
1,2-Dichloropropane	None Detected	µg/L	0.5	
1,3-Dichloropropane	None Detected	µg/L	0.5	
2,2-Dichloropropane	None Detected	µg/L	0.5	
1,1-Dichloropropene	None Detected	µg/L	0.5	
cis-1,3-Dichloropropene	None Detected	µg/L	0.5	
trans-1,3-Dichloropropene	None Detected	µg/L	0.5	
Ethyl Benzene	None Detected	µg/L	0.5	
Hexachlorobutadiene	None Detected	µg/L	0.5	
Isopropylbenzene	None Detected	µg/L	0.5	
p-Isopropyltoluene	None Detected	µg/L	0.5	
Methylene Chloride	1.0	µg/L	0.5	
Naphthalene	None Detected	µg/L	0.5	

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BC LABORATORIES

Volatile Organic Analysis
(EPA Method 8260)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/11/99
Date Received: 02/03/99
Laboratory No.: 99-01424-8TB

Sample Description: 280.02, ILM GROUNDWATER, TB-2, 01/28/99, BRYAN J. HAWES

Constituents	Analysis Results	Reporting Units	Practical Quantitation Limit
n-Propylbenzene	None Detected	µg/L	0.5
Styrene	None Detected	µg/L	0.5
1,1,1,2-Tetrachloroethane	None Detected	µg/L	0.5
1,1,2,2-Tetrachloroethane	None Detected	µg/L	0.5
Tetrachloroethene	None Detected	µg/L	0.5
Toluene	None Detected	µg/L	0.5
1,2,3-Trichlorobenzene	None Detected	µg/L	0.5
1,2,4-Trichlorobenzene	None Detected	µg/L	0.5
1,1,1-Trichloroethane	None Detected	µg/L	0.5
1,1,2-Trichloroethane	None Detected	µg/L	0.5
Trichloroethene	None Detected	µg/L	0.5
Trichlorofluoromethane	None Detected	µg/L	0.5
1,2,3-Trichloropropane	None Detected	µg/L	0.5
1,2,4-Trimethylbenzene	None Detected	µg/L	0.5
1,3,5-Trimethylbenzene	None Detected	µg/L	0.5
Vinyl Chloride	None Detected	µg/L	0.5
Total Xylenes	None Detected	µg/L	1.

Quality Control Data

Surrogates	% Recovery	Control Limits
1,2-Dichloroethane-d4	92.	76-114
Toluene-d8	108.	88-110
4-Bromofluorobenzene	94.	86-115

Flag Explanations:
*1 = CCV recovery not within method limits.
California D.O.H.S. Cert. #1186, AZ License: AZ0345

Stuart G. Buttram
Department Supervisor

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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BC LABORATORIES

Volatile Organic Analysis
(EPA Method 8260)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/11/99
Date Received: 02/03/99
Laboratory No.: 99-01424-9

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: FB-2
Sample Matrix: Water
Sample Collected By: BRYAN J. HAWES

Date Collected: 02/03/99 @ 03:00PM
Date Extracted: 02/05/99
Date Analyzed: 02/05/99
Dilution Used: 1

Constituents	Analysis Results	Reporting Units	Practical Quantitation Limit	
Benzene	None Detected	µg/L	0.5	
Bromobenzene	None Detected	µg/L	0.5	
Bromochloromethane	None Detected	µg/L	0.5	
Bromodichloromethane	None Detected	µg/L	0.5	
Bromoform	None Detected	µg/L	0.5	
Bromomethane	None Detected	µg/L	0.5	
n-Butylbenzene	None Detected	µg/L	0.5	
sec-Butylbenzene	None Detected	µg/L	0.5	
tert-Butylbenzene	None Detected	µg/L	0.5	
Carbon tetrachloride	None Detected	µg/L	0.5	
Chlorobenzene	None Detected	µg/L	0.5	
Chloroethane	None Detected	µg/L	0.5	
2-Chloroethylvinyl ether	None Detected	µg/L	20.	*1
Chloroform	None Detected	µg/L	0.5	
Chloromethane	None Detected	µg/L	0.5	
2-Chlorotoluene	None Detected	µg/L	0.5	
4-Chlorotoluene	None Detected	µg/L	0.5	
Dibromochloromethane	None Detected	µg/L	0.5	
1,2-Dibromo-3-Chloropropane	None Detected	µg/L	0.5	
1,2-Dibromoethane	None Detected	µg/L	0.5	
Dibromomethane	None Detected	µg/L	0.5	
1,2-Dichlorobenzene	None Detected	µg/L	0.5	
1,3-Dichlorobenzene	None Detected	µg/L	0.5	
1,4-Dichlorobenzene	None Detected	µg/L	0.5	
Dichlorodifluoromethane	None Detected	µg/L	0.5	
1,1-Dichloroethane	None Detected	µg/L	0.5	
1,2-Dichloroethane	None Detected	µg/L	0.5	
1,1-Dichloroethene	None Detected	µg/L	0.5	
cis-1,2-Dichloroethene	None Detected	µg/L	0.5	
trans-1,2-Dichloroethene	None Detected	µg/L	0.5	
1,2-Dichloropropane	None Detected	µg/L	0.5	
1,3-Dichloropropane	None Detected	µg/L	0.5	
2,2-Dichloropropane	None Detected	µg/L	0.5	
1,1-Dichloropropene	None Detected	µg/L	0.5	
cis-1,3-Dichloropropene	None Detected	µg/L	0.5	
trans-1,3-Dichloropropene	None Detected	µg/L	0.5	
Ethyl Benzene	None Detected	µg/L	0.5	
Hexachlorobutadiene	None Detected	µg/L	0.5	
Isopropylbenzene	None Detected	µg/L	0.5	
p-Isopropyltoluene	None Detected	µg/L	0.5	
Methylene Chloride	None Detected	µg/L	0.5	
Naphthalene	None Detected	µg/L	0.5	

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BC LABORATORIES

Volatile Organic Analysis
(EPA Method 8260)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/11/99
Date Received: 02/03/99
Laboratory No.: 99-01424-9

Sample Description: 280.02, ILM GROUNDWATER, FB-2, 02/03/99 @ 03:00PM, BRYAN J. HAWES

Constituents	Analysis Results	Reporting Units	Practical Quantitation Limit
n-Propylbenzene	None Detected	µg/L	0.5
Styrene	None Detected	µg/L	0.5
1,1,1,2-Tetrachloroethane	None Detected	µg/L	0.5
1,1,2,2-Tetrachloroethane	None Detected	µg/L	0.5
Tetrachloroethene	None Detected	µg/L	0.5
Toluene	None Detected	µg/L	0.5
1,2,3-Trichlorobenzene	None Detected	µg/L	0.5
1,2,4-Trichlorobenzene	None Detected	µg/L	0.5
1,1,1-Trichloroethane	None Detected	µg/L	0.5
1,1,2-Trichloroethane	None Detected	µg/L	0.5
Trichloroethene	None Detected	µg/L	0.5
Trichlorofluoromethane	None Detected	µg/L	0.5
1,2,3-Trichloropropane	None Detected	µg/L	0.5
1,2,4-Trimethylbenzene	None Detected	µg/L	0.5
1,3,5-Trimethylbenzene	None Detected	µg/L	0.5
Vinyl Chloride	None Detected	µg/L	0.5
Total Xylenes	None Detected	µg/L	1.

Quality Control Data

Surrogates	% Recovery	Control Limits
1,2-Dichloroethane-d4	92.	76-114
Toluene-d8	100.	88-110
4-Bromofluorobenzene	89.	86-115

Flag Explanations:
*1 = CCV recovery not within method limits.
California D.O.H.S. Cert. #1186, AZ License: AZ0345

Stuart G. Buttram
Department Supervisor

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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BC LABORATORIES

Volatile Organic Analysis
(EPA Method 8260)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/11/99
Date Received: 02/03/99
Laboratory No.: 99-01424-10

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: RB-2
Sample Matrix: Water
Sample Collected By: BRYAN J. HAWES

Date Collected: 02/03/99 @ 03:30PM
Date Extracted: 02/06/99
Date Analyzed: 02/06/99
Dilution Used: 1

Constituents	Analysis Results	Reporting Units	Practical Quantitation Limit	
Benzene	None Detected	µg/L	0.5	
Bromobenzene	None Detected	µg/L	0.5	
Bromochloromethane	None Detected	µg/L	0.5	
Bromodichloromethane	None Detected	µg/L	0.5	
Bromoform	None Detected	µg/L	0.5	
Bromomethane	None Detected	µg/L	0.5	
n-Butylbenzene	None Detected	µg/L	0.5	
sec-Butylbenzene	None Detected	µg/L	0.5	
tert-Butylbenzene	None Detected	µg/L	0.5	
Carbon tetrachloride	None Detected	µg/L	0.5	
Chlorobenzene	None Detected	µg/L	0.5	
Chloroethane	None Detected	µg/L	0.5	
2-Chloroethylvinyl ether	None Detected	µg/L	20.	*1
Chloroform	None Detected	µg/L	0.5	
Chloromethane	None Detected	µg/L	0.5	
2-Chlorotoluene	None Detected	µg/L	0.5	
4-Chlorotoluene	None Detected	µg/L	0.5	
Dibromochloromethane	None Detected	µg/L	0.5	
1,2-Dibromo-3-Chloropropane	None Detected	µg/L	0.5	
1,2-Dibromoethane	None Detected	µg/L	0.5	
Dibromomethane	None Detected	µg/L	0.5	
1,2-Dichlorobenzene	None Detected	µg/L	0.5	
1,3-Dichlorobenzene	None Detected	µg/L	0.5	
1,4-Dichlorobenzene	None Detected	µg/L	0.5	
Dichlorodifluoromethane	None Detected	µg/L	0.5	
1,1-Dichloroethane	None Detected	µg/L	0.5	
1,2-Dichloroethane	None Detected	µg/L	0.5	
1,1-Dichloroethene	None Detected	µg/L	0.5	
cis-1,2-Dichloroethene	None Detected	µg/L	0.5	
trans-1,2-Dichloroethene	None Detected	µg/L	0.5	
1,2-Dichloropropane	None Detected	µg/L	0.5	
1,3-Dichloropropane	None Detected	µg/L	0.5	
2,2-Dichloropropane	None Detected	µg/L	0.5	
1,1-Dichloropropene	None Detected	µg/L	0.5	
cis-1,3-Dichloropropene	None Detected	µg/L	0.5	
trans-1,3-Dichloropropene	None Detected	µg/L	0.5	
Ethyl Benzene	None Detected	µg/L	0.5	
Hexachlorobutadiene	None Detected	µg/L	0.5	
Isopropylbenzene	None Detected	µg/L	0.5	
p-Isopropyltoluene	None Detected	µg/L	0.5	
Methylene Chloride	None Detected	µg/L	0.5	
Naphthalene	None Detected	µg/L	0.5	

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Volatile Organic Analysis
(EPA Method 8260)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/11/99
Date Received: 02/03/99
Laboratory No.: 99-01424-10

Sample Description: 280.02, ILM GROUNDWATER, RB-2, 02/03/99 @ 03:30PM, BRYAN J. HAWES

Constituents	Analysis Results	Reporting Units	Practical Quantitation Limit
n-Propylbenzene	None Detected	µg/L	0.5
Styrene	None Detected	µg/L	0.5
1,1,1,2-Tetrachloroethane	None Detected	µg/L	0.5
1,1,2,2-Tetrachloroethane	None Detected	µg/L	0.5
Tetrachloroethene	None Detected	µg/L	0.5
Toluene	None Detected	µg/L	0.5
1,2,3-Trichlorobenzene	None Detected	µg/L	0.5
1,2,4-Trichlorobenzene	None Detected	µg/L	0.5
1,1,1-Trichloroethane	None Detected	µg/L	0.5
1,1,2-Trichloroethane	None Detected	µg/L	0.5
Trichloroethene	None Detected	µg/L	0.5
Trichlorofluoromethane	None Detected	µg/L	0.5
1,2,3-Trichloropropane	None Detected	µg/L	0.5
1,2,4-Trimethylbenzene	None Detected	µg/L	0.5
1,3,5-Trimethylbenzene	None Detected	µg/L	0.5
Vinyl Chloride	None Detected	µg/L	0.5
Total Xylenes	None Detected	µg/L	1.

Quality Control Data

Surrogates	% Recovery	Control Limits
1,2-Dichloroethane-d4	94.	76-114
Toluene-d8	101.	88-110
4-Bromofluorobenzene	93.	86-115

Flag Explanations:
*1 = CCV recovery not within method limits.
California D.O.H.S. Cert. #1186, AZ License: AZ0345

Stuart G. Buttram
Department Supervisor

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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BC LABORATORIES

Volatile Organic Analysis
(EPA Method 8260)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/11/99
Date Received: 02/03/99
Laboratory No.: 99-01424-11

Project Number: 280.02
Sampling Location: ILM GROUNDWATER
Sample ID: BLANK-1
Sample Matrix: Water
Sample Collected By: BRYAN J. HAWES

Date Collected: 02/03/99 @ 03:10PM
Date Extracted: 02/06/99
Date Analyzed: 02/06/99
Dilution Used: 1

Constituents	Analysis Results	Reporting Units	Practical Quantitation Limit	
Benzene	None Detected	µg/L	0.5	
Bromobenzene	None Detected	µg/L	0.5	
Bromochloromethane	None Detected	µg/L	0.5	
Bromodichloromethane	None Detected	µg/L	0.5	
Bromoform	None Detected	µg/L	0.5	
Bromomethane	None Detected	µg/L	0.5	
n-Butylbenzene	None Detected	µg/L	0.5	
sec-Butylbenzene	None Detected	µg/L	0.5	
tert-Butylbenzene	None Detected	µg/L	0.5	
Carbon tetrachloride	None Detected	µg/L	0.5	
Chlorobenzene	None Detected	µg/L	0.5	
Chloroethane	None Detected	µg/L	0.5	
2-Chloroethylvinyl ether	None Detected	µg/L	20.	*1
Chloroform	None Detected	µg/L	0.5	
Chloromethane	None Detected	µg/L	0.5	
2-Chlorotoluene	None Detected	µg/L	0.5	
4-Chlorotoluene	None Detected	µg/L	0.5	
Dibromochloromethane	None Detected	µg/L	0.5	
1,2-Dibromo-3-Chloropropane	None Detected	µg/L	0.5	
1,2-Dibromoethane	None Detected	µg/L	0.5	
Dibromomethane	None Detected	µg/L	0.5	
1,2-Dichlorobenzene	None Detected	µg/L	0.5	
1,3-Dichlorobenzene	None Detected	µg/L	0.5	
1,4-Dichlorobenzene	None Detected	µg/L	0.5	
Dichlorodifluoromethane	None Detected	µg/L	0.5	
1,1-Dichloroethane	None Detected	µg/L	0.5	
1,2-Dichloroethane	None Detected	µg/L	0.5	
1,1-Dichloroethene	None Detected	µg/L	0.5	
cis-1,2-Dichloroethene	None Detected	µg/L	0.5	
trans-1,2-Dichloroethene	None Detected	µg/L	0.5	
1,2-Dichloropropane	None Detected	µg/L	0.5	
1,3-Dichloropropane	None Detected	µg/L	0.5	
2,2-Dichloropropane	None Detected	µg/L	0.5	
1,1-Dichloropropene	None Detected	µg/L	0.5	
cis-1,3-Dichloropropene	None Detected	µg/L	0.5	
trans-1,3-Dichloropropene	None Detected	µg/L	0.5	
Ethyl Benzene	None Detected	µg/L	0.5	
Hexachlorobutadiene	None Detected	µg/L	0.5	
Isopropylbenzene	None Detected	µg/L	0.5	
p-Isopropyltoluene	None Detected	µg/L	0.5	
Methylene Chloride	None Detected	µg/L	0.5	
Naphthalene	None Detected	µg/L	0.5	

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BC LABORATORIES

Volatile Organic Analysis
(EPA Method 8260)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
Attn: DERRICK WILLIS 714-753-0444

Date Reported: 02/11/99
Date Received: 02/03/99
Laboratory No.: 99-01424-11

Sample Description: 280.02, ILM GROUNDWATER, BLANK-1, 02/03/99 @ 03:10PM, BRYAN J. HAWES

Constituents	Analysis Results	Reporting Units	Practical Quantitation Limit
n-Propylbenzene	None Detected	µg/L	0.5
Styrene	None Detected	µg/L	0.5
1,1,1,2-Tetrachloroethane	None Detected	µg/L	0.5
1,1,2,2-Tetrachloroethane	None Detected	µg/L	0.5
Tetrachloroethene	None Detected	µg/L	0.5
Toluene	None Detected	µg/L	0.5
1,2,3-Trichlorobenzene	None Detected	µg/L	0.5
1,2,4-Trichlorobenzene	None Detected	µg/L	0.5
1,1,1-Trichloroethane	None Detected	µg/L	0.5
1,1,2-Trichloroethane	None Detected	µg/L	0.5
Trichloroethene	None Detected	µg/L	0.5
Trichlorofluoromethane	None Detected	µg/L	0.5
1,2,3-Trichloropropane	None Detected	µg/L	0.5
1,2,4-Trimethylbenzene	None Detected	µg/L	0.5
1,3,5-Trimethylbenzene	None Detected	µg/L	0.5
Vinyl Chloride	None Detected	µg/L	0.5
Total Xylenes	None Detected	µg/L	1.

Quality Control Data

Surrogates	% Recovery	Control Limits
1,2-Dichloroethane-d4	99.	76-114
Toluene-d8	100.	88-110
4-Bromofluorobenzene	96.	86-115

Flag Explanations:
*1 = CCV recovery not within method limits.
California D.O.H.S. Cert. #1186, AZ License: AZ0345

Stuart G. Buttram
Department Supervisor

cc: INTEGRATED ENVIRONMENTAL SERVICES, INC. - JO ANN ORNALES

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BC LABORATORIES

B C LABORATORIES
QUALITY CONTROL REPORT
(Preparation & Analysis Information)
STANDARD TTLC CONSTITUENTS

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Soil

Samples Affected: 99-01424-2, 99-01424-3, 99-01424-13, 99-01424-14

Constituents	Preparation Method	Preparation Date	Preparation Technician	Analytical Method	Run Date	Analyst
Antimony	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Arsenic	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Barium	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Beryllium	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Cadmium	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Chromium	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Cobalt	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Copper	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Lead	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Mercury	SW-7471	02/08/99	JSL	SW-7471	02/09/99	DIW
Molybdenum	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Nickel	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Selenium	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Silver	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Thallium	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Vanadium	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Zinc	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Aluminum	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC
Titanium	SW-3050	02/08/99	VBA	SW-6010	02/11/99	JCC

Quality Control Officer

Anthony Bonanno

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BOE-C6-0234297

BC LABORATORIES

B C LABORATORIES
QUALITY CONTROL REPORT
(Instrumental & Blank Parameters)
STANDARD TTLC CONSTITUENTS

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Soil

Samples Affected: 99-01424-2, 99-01424-3, 99-01424-13, 99-01424-14

Constituents	ICV % Found	ICV %Found Control Limits	CCV % Found Before	CCV % Found After	% Found Control Limits	CCB Readings Before	Units	CCB Readings After	Units	Method Blank Readings	Units
Antimony	102.	90 - 110	102.	96.	90 - 110	< 0.01	mg/L	< 0.01	mg/L	< 0.5	mg/kg
Arsenic	105.	90 - 110	105.	98.	90 - 110	< 0.01	mg/L	< 0.01	mg/L	< 0.5	mg/kg
Barium	102.	90 - 110	103.	95.	90 - 110	< 0.01	mg/L	< 0.01	mg/L	< 0.5	mg/kg
Beryllium	104.	90 - 110	106.	97.	90 - 110	< 0.01	mg/L	< 0.01	mg/L	< 0.5	mg/kg
Cadmium	104.	90 - 110	105.	98.	90 - 110	< 0.01	mg/L	< 0.01	mg/L	< 0.5	mg/kg
Chromium	101.	90 - 110	104.	95.	90 - 110	< 0.01	mg/L	< 0.01	mg/L	< 0.5	mg/kg
Cobalt	101.	90 - 110	103.	94.	90 - 110	< 0.05	mg/L	< 0.05	mg/L	< 2.5	mg/kg
Copper	98.	90 - 110	99.	90.	90 - 110	< 0.01	mg/L	< 0.01	mg/L	< 0.5	mg/kg
Lead	100.	90 - 110	99.	94.	90 - 110	< 0.05	mg/L	< 0.05	mg/L	< 2.5	mg/kg
Mercury	103.	90 - 110	103.	103.	90 - 110	< 0.00008	mg/L	< 0.00008	mg/L	< 0.2	mg/kg
Molybdenum	101.	90 - 110	102.	94.	90 - 110	< 0.05	mg/L	< 0.05	mg/L	< 2.5	mg/kg
Nickel	103.	90 - 110	105.	97.	90 - 110	< 0.05	mg/L	< 0.05	mg/L	< 2.5	mg/kg
Selenium	101.	90 - 110	101.	94.	90 - 110	< 0.01	mg/L	< 0.01	mg/L	< 0.5	mg/kg
Silver	98.	90 - 110	98.	92.	90 - 110	< 0.02	mg/L	< 0.02	mg/L	< 1.0	mg/kg
Thallium	103.	90 - 110	103.	98.	90 - 110	< 0.1	mg/L	< 0.1	mg/L	< 5.0	mg/kg
Vanadium	103.	90 - 110	104.	96.	90 - 110	< 0.01	mg/L	< 0.01	mg/L	< 0.5	mg/kg
Zinc	101.	90 - 110	103.	95.	90 - 110	< 0.05	mg/L	< 0.05	mg/L	< 2.5	mg/kg
Aluminum	102.	90 - 110	102.	101.	90 - 110	< 0.1	mg/L	< 0.1	mg/L	< 5.0	mg/kg
Titanium	101.	90 - 110	102.	94.	90 - 110	< 0.01	mg/L	< 0.01	mg/L	< 0.5	mg/kg

ICV = Initial Calibration Verification; CCV = Continuing Calibration Verification; CCB = Continuing Calibration Blank

Quality Control Officer

Anthony Bonanno

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BOE-C6-0234298

BC Laboratories, Inc

B C LABORATORIES
QUALITY CONTROL REPORT
(Precision & Accuracy)
STANDARD TTLC CONSTITUENTS

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 05/10/99
Sample Matrix: Soil

Samples Affected: 99-01424-2, 99-01424-3, 99-01424-13, 99-01424-14

Constituents	QC Sample ID	Sample Result	Sample Duplicate	MS Result	MSD Result	MS Spike Level	MSD Spike Level	Units	Sample R.P.D.	Spike R.P.D.	Precision Control Limits	MS % Rec	MSD % Rec	Accuracy Control Limits
Antimony	HP-1482-3-X2	< 10.	< 10.	43.73	41.16	98.04	98.04	mg/kg	<PQL	6.	20	44.	41.	75 - 125
Arsenic	HP-1482-3-X2	3.843	3.676	8.255	8.529	4.902	4.902	mg/kg	4.	3.	20	90.	96.	80 - 120
Barium	HP-1482-3-X2	219.5	209.4	310.1	329.2	98.04	98.04	mg/kg	5.	6.	20	92.	112.	80 - 120
Beryllium	HP-1482-3-X2	0.9314	0.9314	10.84	10.9	9.804	9.804	mg/kg	<PQL	1.	20	101.	102.	80 - 120
Cadmium	HP-1482-3-X2	< 1.	< 1.	9.333	9.412	9.804	9.804	mg/kg	<PQL	1.	20	102.	103.	80 - 120
Chromium	HP-1482-3-X2	22.47	22.21	125.5	126.2	98.04	98.04	mg/kg	1.	1.	20	105.	106.	80 - 120
Cobalt	HP-1482-3-X2	12.39	12.42	113.3	113.2	98.04	98.04	mg/kg	0.	0.	20	103.	103.	80 - 120
Copper	HP-1482-3-X2	30.88	36.34	148.5	148.8	98.04	98.04	mg/kg	16.	0.	20	120.	120.	80 - 120
Lead	HP-1482-3-X2	5.676	5.706	99.12	99.12	98.04	98.04	mg/kg	1.	0.	20	95.	95.	80 - 120
Mercury	01424-2	< 0.2	< 0.2	0.8082	0.8258	0.7812	0.7812	mg/kg	<PQL	2.	20	100.	102.	85 - 115
Molybdenum	HP-1482-3-X2	< 5.	< 5.	95.6	96.32	98.04	98.04	mg/kg	<PQL	1.	20	97.	98.	80 - 120
Nickel	HP-1482-3-X2	17.34	17.22	118.	118.5	98.04	98.04	mg/kg	1.	0.	20	103.	103.	80 - 120
Selenium	HP-1482-3-X2	1.333	1.	5.569	5.824	4.902	4.902	mg/kg	<PQL	4.	20	86.	92.	80 - 120
Silver	HP-1482-3-X2	< 2.	< 2.	8.824	8.833	9.804	9.804	mg/kg	<PQL	0.	20	91.	91.	80 - 120
Thallium	HP-1482-3-X2	< 10.	< 10.	101.4	101.5	98.04	98.04	mg/kg	<PQL	0.	20	102.	102.	80 - 120
Vanadium	HP-1482-3-X2	59.42	58.69	167.4	168.7	98.04	98.04	mg/kg	1.	1.	20	110.	111.	80 - 120
Zinc	HP-1482-3-X2	76.22	78.34	180.7	180.5	98.04	98.04	mg/kg	3.	0.	20	107.	106.	80 - 120
Aluminum	HP-1482-3-X2	21520.	21300.	24090.	24580.	490.2	490.2	mg/kg	1.	2.	20	H MEAN	H MEAN	80 - 120
Titanium	HP-1482-3-X2	1622.	1603.	2210.	2263.	490.2	490.2	mg/kg	1.	2.	20	120.	131.	80 - 120

BOE-C6-0234299

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B C LABORATORIES
QUALITY CONTROL REPORT
(Precision & Accuracy)
STANDARD TTLC CONSTITUENTS

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 05/10/99
Sample Matrix: Soil

Samples Affected: 99-01424-2, 99-01424-3, 99-01424-13, 99-01424-14

MS = Matrix Spike; MSD = Matrix Spike Duplicate; RPD = Relative Percent Difference

Matrix spike recoveries for antimony are outside project limits.
Matrix spike duplicate recovery for titanium is outside QC limits.

Quality Control Officer

Anthony Bonanno

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BC LABORATORIES

B C LABORATORIES
QUALITY CONTROL REPORT
(Laboratory Control Sample)
STANDARD TTLC CONSTITUENTS

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Soil

Samples Affected: 99-01424-2, 99-01424-3, 99-01424-13, 99-01424-14

Constituents	QC Sample ID	Sample Result	Spike Level	Units	% Rec	Accuracy Control Limits
Antimony	HP-LCSW#1-	2.032	2.	mg/L	102.	80 - 120
Arsenic	HP-LCSW#1-	0.0956	0.1000	mg/L	96.	80 - 120
Barium	HP-LCSW#1-	2.066	2.00	mg/L	103.	80 - 120
Beryllium	HP-LCSW#1-	0.2062	0.2000	mg/L	103.	80 - 120
Cadmium	HP-LCSW#1-	0.2137	0.2000	mg/L	107.	80 - 120
Chromium	HP-LCSW#1-	2.125	2.	mg/L	106.	80 - 120
Cobalt	HP-LCSW#1-	2.121	2.	mg/L	106.	80 - 120
Copper	HP-LCSW#1-	2.238	2.	mg/L	112.	80 - 120
Lead	HP-LCSW#1-	1.951	2.	mg/L	98.	80 - 120
Mercury	LCSW1-02-0	0.004992	0.005	mg/L	100.	85 - 115
Molybdenum	HP-LCSW#1-	2.094	2.	mg/L	105.	80 - 120
Nickel	HP-LCSW#1-	2.126	2.	mg/L	106.	80 - 120
Selenium	HP-LCSW#1-	0.098	0.1000	mg/L	98.	80 - 120
Silver	HP-LCSW#1-	0.1796	0.2000	mg/L	90.	80 - 120
Thallium	HP-LCSW#1-	2.056	2.	mg/L	103.	80 - 120
Vanadium	HP-LCSW#1-	2.172	2.	mg/L	109.	80 - 120
Zinc	HP-LCSW#1-	2.123	2.	mg/L	106.	80 - 120
Aluminum	HP-LCSW#1-	10.52	10.	mg/L	105.	80 - 120
Titanium	HP-LCSW#1-	9.942	10.	mg/L	99.	80 - 120

Quality Control Officer

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BOE-C6-0234301

BC LABORATORIES

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QUALITY CONTROL REPORT
(Preparation & Analysis Information)
METHOD 8015M TPH-FUEL FINGERPRINT

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/15/99
Sample Matrix: Water

Samples Affected: 99-01424-9, 99-01424-10

Constituents	Preparation Method	Preparation Date	Preparation Technician	Analytical Method	Run Date	Analyst
Stoddard / White Spirits	3510	02/05/99	SM/MS	8015M	02/11/99	DS
JP 4	3510	02/05/99	SM/MS	8015M	02/11/99	DS
JP 5	3510	02/05/99	SM/MS	8015M	02/11/99	DS
JP 6	3510	02/05/99	SM/MS	8015M	02/11/99	DS
JP 8	3510	02/05/99	SM/MS	8015M	02/11/99	DS
Kerosene / Jet Fuel	3510	02/05/99	SM/MS	8015M	02/11/99	DS
Diesel	3510	02/05/99	SM/MS	8015M	02/11/99	DS
Crude Oil	3510	02/05/99	SM/MS	8015M	02/11/99	DS
Hydraulic Oil	3510	02/05/99	SM/MS	8015M	02/11/99	DS
Waste Oil	3510	02/05/99	SM/MS	8015M	02/11/99	DS
Motor Oil	3510	02/05/99	SM/MS	8015M	02/11/99	DS

Quality Control Officer

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BOE-C6-0234302

BC LABORATORIES

B C LABORATORIES
QUALITY CONTROL REPORT
(Instrumental & Blank Parameters)
METHOD 8015M TPH-FUEL FINGERPRINT

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9, 99-01424-10

Constituents	Method Blank Readings	Units
Stoddard / White Spirits	<200.	µg/L
JP 4	<1000.	µg/L
JP 5	<1000.	µg/L
JP 6	<1000.	µg/L
JP 8	<200.	µg/L
Kerosene / Jet Fuel	<200.	µg/L
Diesel	<200.	µg/L
Crude Oil	<1000.	µg/L
Hydraulic Oil	<1000.	µg/L
Waste Oil	<1000.	µg/L
Motor Oil	<1000.	µg/L
Surrogate % Recovery	72.	%

Quality Control Officer

Anthony Bonanno

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BOE-C6-0234303

Response Factor Report GC-13

Method : C:\HPCHEM\1\METHODS\8015FFP.M (Chemstation Integrator)
Title : 8015 TPH Diesel GC-13
Last Update : Fri Dec 11 10:45:37 1998

Calibration Files
1 =16DEC10.D 2 =16DEC09.D 3 =16DEC11.D
4 =16DEC07.D 5 =16DEC06.D

	Compound	1	2	3	4	5	Avg		%RSD
*1)	AHM DIESEL	1.094	0.973	0.979	0.992	1.004	1.008	E7	4.87
2)	BH CRUDE/WASTE OIL	4.552	4.611	4.320	4.260	4.034	4.355	E6	5.35
3)	DH MOTOR /HYDRAULIC OIL	9.367	9.562	9.401	9.738	9.987	9.611	E6	2.67
4)	EH KEROSENE	9.938	8.886	8.870	8.989	8.540	9.045	E6	5.83
5)	FH GASOLINE	7.478	7.018	6.744	6.797	6.557	6.919	E6	5.10
6)	JH STODDARD/ MINERAL SPI	2.812	3.483	3.371	3.582	3.431	3.336	E6	9.08
*7)	AS TETRACOSANE (SURR)	0.968	1.010	0.958	1.043	1.023	1.000	E7	3.65

(#) = Out of Range

8015FFP.M Thu Dec 17 08:18:21 1998 DSLGC12

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\DATA\GC13\DEC98\DEC16\16DEC12.D Vial: 12
Acq On : 16 Dec 1998 5:30 pm Operator: SPB
Sample : DIESEL ICV EX-8-0145 Inst : GC-13
Misc : MIX [A] Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8015FFP.M (Chemstation Integrator)
Title : 8015 TPH Diesel GC-13
Last Update : Fri Dec 11 10:45:37 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 AHM DIESEL	10.084	9.926 E6	1.6	101	0.00
7 AS TETRACOSANE (SURR)	10.004	10.055 E6	-0.5	105	0.00

(#) = Out of Range
16DEC11.D 8015FFP.M Thu Dec 17 08:25:19 1998 DSLGC12

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\DATA\GC13\FEB99\FEB10\10FEB03.D Vial: 3
Acq On : 10 Feb 1999 12:15 pm Operator: SPB
Sample : DIESEL CCV#54 EX-8-0531 Inst : GC-13
Misc : MIX [A] Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8015FFP.M (Chemstation Integrator)
Title : 8015 TPH Diesel GC-13
Last Update : Tue Dec 29 09:12:52 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 AHM DIESEL	10.084	9.617 E6	4.6	98	0.00
8 AS TETRACOSANE (SURR)	10.004	10.445 E6	-4.4	109	-0.14

(#) = Out of Range
28DEC14.D 8015FFP.M Thu Feb 11 14:41:42 1999 RPT1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\DATA\GC13\FEB99\FEB10\10FEB16.D Vial: 16
Acq On : 11 Feb 1999 12:06 am Operator: SPB
Sample : DIESEL CCV#55 Inst : GC-13
Misc : MIX [A] Multiplr: 1.00
tFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8015FFP.M (Chemstation Integrator)
Title : 8015 TPH Diesel GC-13
Last Update : Tue Dec 29 09:12:52 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 AHM DIESEL	10.084	10.986 E6	-8.9	112	0.00
8 AS TETRACOSANE (SURR)	10.004	11.496 E6	-14.9	120	-0.14

(#) = Out of Range
28DEC14.D 8015FFP.M Thu Feb 11 14:43:16 1999 RPT1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\DATA\GC13\FEB99\FEB10\10FEB25.D Vial: 25
Acq On : 11 Feb 1999 2:05 pm Operator: SPB
Sample : DIESEL CCV#56 Inst : GC-13
Misc : MIX [A] Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\8015FFP.M (Chemstation Integrator)
Title : 8015 TPH Diesel GC-13
Last Update : Tue Dec 29 09:12:52 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	AHM DIESEL	10.084	9.818 E6	2.6	100	0.00
8	AS TETRACOSANE (SURR)	10.004	10.724 E6	-7.2	112	-0.13

(#) = Out of Range
28DEC14.D 8015FFP.M Thu Feb 11 14:48:41 1999 RPT1

B C LABORATORIES

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QUALITY CONTROL REPORT
(Precision & Accuracy)
METHOD 8015M TPH-FUEL FINGERPRINT

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9, 99-01424-10

Constituents	QC Sample ID	Sample Result	MS Result	MSD Result	MS Spike Level	MSD Spike Level	Units	Spike R.P.D.	Precision Control Limits	MS % Rec	MSD % Rec	Accuracy Control Limits
Diesel	1425-3	<200.	2458.	2603.	2500.	2500.	µg/L	6.	30	98.	104.	47 - 129
Surrogate % Recovery	MS/MSD						%			98.	95.	32 - 143

MS = Matrix Spike; MSD = Matrix Spike Duplicate; RPD = Relative Percent Difference

Quality Control Officer

Anthony Bonanno

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QUALITY CONTROL REPORT
(Laboratory Control Sample)
METHOD 8015M TPH-FUEL FINGERPRINT

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9, 99-01424-10

Constituents	QC Sample ID	Sample Result	Spike Level	Units	% Rec	Accuracy Control Limits
Diesel	LCSW	2355.	2500.	µg/L	94.	45 - 133
Surrogate % Recovery	LCSW			%	74.	32 - 143

Quality Control Officer

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LABORATORIES

B C LABORATORIES
QUALITY CONTROL REPORT
(Preparation & Analysis Information)
Method 8260

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9 - 99-01424-11, 99-01424-8TB

Constituents	Preparation Method	Preparation Date	Preparation Technician	Analytical Method	Run Date	Analyst
Method 8260 Compounds	5030	02/05/99	SNM	8260	02/05/99	SNM

Quality Control Officer

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BC LABORATORIES

B C LABORATORIES
QUALITY CONTROL REPORT
(Instrumental & Blank Parameters)
Method 8260

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9 - 99-01424-11, 99-01424-8TB

Constituents	Method Blank Readings	Units
Benzene	< 0.5	µg/L
Bromobenzene	< 0.5	µg/L
Bromochloromethane	< 0.5	µg/L
Bromodichloromethane	< 0.5	µg/L
Bromoform	< 0.5	µg/L
Bromomethane	< 0.5	µg/L
n-Butylbenzene	< 0.5	µg/L
sec-Butylbenzene	< 0.5	µg/L
tert-Butylbenzene	< 0.5	µg/L
Carbon tetrachloride	< 0.5	µg/L
Chlorobenzene	< 0.5	µg/L
Chloroethane	< 0.5	µg/L
2-Chloroethylvinyl ether	<20.	µg/L
Chloroform	< 0.5	µg/L
Chloromethane	< 0.5	µg/L
2-Chlorotoluene	< 0.5	µg/L
4-Chlorotoluene	< 0.5	µg/L
Dibromochloromethane	< 0.5	µg/L
1,2-Dibromo-3-Chloropropane	< 0.5	µg/L
1,2-Dibromoethane	< 0.5	µg/L
Dibromomethane	< 0.5	µg/L
1,2-Dichlorobenzene	< 0.5	µg/L
1,3-Dichlorobenzene	< 0.5	µg/L
1,4-Dichlorobenzene	< 0.5	µg/L
Dichlorodifluoromethane	< 0.5	µg/L
1,1-Dichloroethane	< 0.5	µg/L
1,2-Dichloroethane	< 0.5	µg/L
1,1-Dichloroethene	< 0.5	µg/L
cis-1,2-Dichloroethene	< 0.5	µg/L
trans-1,2-Dichloroethene	< 0.5	µg/L

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BC LABORATORIES

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QUALITY CONTROL REPORT
(Instrumental & Blank Parameters)
Method 8260

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9 - 99-01424-11, 99-01424-8TB

Constituents	Method Blank Readings	Units
1,2-Dichloropropane	< 0.5	µg/L
1,3-Dichloropropane	< 0.5	µg/L
2,2-Dichloropropane	< 0.5	µg/L
1,1-Dichloropropene	< 0.5	µg/L
cis-1,3-Dichloropropene	< 0.5	µg/L
trans-1,3-Dichloropropene	< 0.5	µg/L
Ethyl Benzene	< 0.5	µg/L
Hexachlorobutadiene	< 0.5	µg/L
Isopropylbenzene	< 0.5	µg/L
p-Isopropyltoluene	< 0.5	µg/L
Methylene Chloride	< 0.5	µg/L
Naphthalene	< 0.5	µg/L
n-Propylbenzene	< 0.5	µg/L
Styrene	< 0.5	µg/L
1,1,1,2-Tetrachloroethane	< 0.5	µg/L
1,1,2,2-Tetrachloroethane	< 0.5	µg/L
Tetrachloroethene	< 0.5	µg/L
Toluene	< 0.5	µg/L
1,2,3-Trichlorobenzene	< 0.5	µg/L
1,2,4-Trichlorobenzene	< 0.5	µg/L
1,1,1-Trichloroethane	< 0.5	µg/L
1,1,2-Trichloroethane	< 0.5	µg/L
Trichloroethene	< 0.5	µg/L
Trichlorofluoromethane	< 0.5	µg/L
1,2,3-Trichloropropane	< 0.5	µg/L
1,2,4-Trimethylbenzene	< 0.5	µg/L
1,3,5-Trimethylbenzene	< 0.5	µg/L
Vinyl Chloride	< 0.5	µg/L
Total Xylenes	< 1.0	µg/L
1,2-Dichloroethane-d4	89.	%

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BOE-C6-0234313

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QUALITY CONTROL REPORT
(Instrumental & Blank Parameters)
Method 8260

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9 - 99-01424-11, 99-01424-8TB

Constituents	Method Blank Readings	Units
Toluene-d8	100.	%
4-Bromofluorobenzene	93.	%

Quality Control Officer

Anthony Bonanno

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BOE-C6-0234314

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Fri Feb 05 14:32:50 1999
Response via : Initial Calibration

Calibration Files
3.2 =05FEB04.D 8.0 =05FEB05.D 16.0 =05FEB06.D
24.0 =05FEB07.D 32.0 =05FEB08.D

		Compound	3.2	8.0	16.0	24.0	32.0	Avg	%RSD
1)	I	Pentafluorobenzene I	----------ISTD----------						
2)		Dichorodifluoromethan	0.517	0.525	0.431	0.450	0.504	0.486	8.69
3)	P	Chloromethane	0.185	0.178	0.142	0.154	0.175	0.167	10.69
4)	C	Vinyl Chloride	0.258	0.263	0.225	0.233	0.274	0.251	8.22
5)		Bromomethane	0.142	0.188	0.199	0.217	0.264	0.202	21.85*
6)	M	Chloroethane	0.197	0.192	0.160	0.175	0.190	0.183	8.31
7)		Trichlorofluoromethan	0.937	0.957	0.804	0.839	0.948	0.897	7.83
8)		1,1,2-Trichloro-1,2,2	1.017	1.030	0.847	0.874	0.978	0.949	8.82
9)	MC	1,1-Dichloroethene	0.687	0.662	0.513	0.536	0.616	0.603	12.64
10)		Methylene Chloride	0.464	0.415	0.371	0.318	0.365	0.387	14.33
11)		MTBE	0.459	0.533	0.448	0.314	0.364	0.424	20.21**
12)		T-1,2-Dichloroethene	0.573	0.527	0.501	0.471	0.501	0.515	7.41
13)	MP	1,1-Dichloroethane	0.831	0.737	0.746	0.651	0.744	0.742	8.62
14)		2,2-Dichloropropane	0.523	0.680	0.675	0.525	0.576	0.596	13.02
15)		Cis-1,2-Dichloroethen	0.507	0.505	0.506	0.453	0.515	0.497	5.02
16)		Bromochloromethane	0.241	0.234	0.251	0.219	0.246	0.238	5.30
17)	C	Chloroform	0.931	0.962	0.952	0.861	0.965	0.934	4.62
		1,1,1-Trichloroethane	1.102	1.145	1.117	0.996	1.109	1.094	5.21
	S	1,2-Dichloroethane-d4	0.303	0.338	0.286	0.312	0.325	0.313	6.38
20)		Carbon Tetrachloride	0.991	1.083	0.887	0.966	1.063	0.998	7.88
21)		1,1-Dichloropropene	0.723	0.761	0.630	0.672	0.744	0.706	7.66
22)	M	Benzene	1.311	1.306	1.090	1.191	1.309	1.241	7.95
23)		1,2-Dichloroethane	0.406	0.397	0.329	0.357	0.399	0.378	8.76
24)	I	1,4-Difluorobenzene	----------ISTD----------						
25)	M	Trichloroethene	0.476	0.486	0.442	0.371	0.457	0.446	10.15
26)	C	1,2-Dichloropropane	0.219	0.223	0.214	0.173	0.222	0.210	10.04
27)		Dibromomethane	0.138	0.156	0.146	0.117	0.146	0.140	10.36
28)	M	Bromodichloromethane	0.458	0.481	0.448	0.359	0.475	0.444	11.15
29)		2-CEVE	0.011	0.012	0.009	0.006	0.016	0.011	34.79**
30)		T-1,3-Dichloropropene	0.268	0.252	0.248	0.200	0.262	0.246	10.84
31)	S	Toluene-D8 SMC #1	0.892	0.890	0.865	0.812	0.891	0.870	3.94
32)	MC	Toluene	1.009	0.982	0.963	0.796	1.004	0.951	9.29
33)		Cis-1,3-Dichloroprope	0.320	0.341	0.338	0.265	0.347	0.322	10.44
34)		1,1,2-Trichloroethane	0.163	0.158	0.162	0.129	0.165	0.155	9.63
35)		Tetrachloroethene	0.575	0.540	0.545	0.445	0.548	0.531	9.43
36)		1,3-Dichloropropane	0.233	0.219	0.229	0.179	0.234	0.219	10.56
37)		Dibromochloromethane	0.321	0.309	0.311	0.254	0.323	0.303	9.33
38)		1,2-Dibromoethane	0.196	0.185	0.187	0.152	0.200	0.184	10.42
39)	I	Chlorobenzene-D5 IS#3	----------ISTD----------						
40)	MP	Chlorobenzene	2.825	2.707	2.847	2.500	2.930	2.762	6.03
41)		1,1,1,2-Tetrachloroet	1.507	1.483	1.509	1.342	1.591	1.486	6.10
[illegible]	C	Ethylbenzene	4.620	4.666	4.801	4.274	5.002	4.673	5.73
4[illegible]		p+m-Xylene	3.880	3.809	3.903	3.477	4.036	3.821	5.48
44)		o-Xylene	3.698	3.536	3.622	3.209	3.763	3.566	6.08
45)		Styrene	2.605	2.601	2.717	2.370	2.861	2.631	6.84
46)	P	Bromoform	0.686	0.710	0.748	0.628	0.793	0.713	8.75
47)		Isopropylbenzene	5.102	5.212	5.352	4.637	5.461	5.153	6.19

48)	S	Bromofluorobenzene S	1.766	1.832	1.918	1.830	1.921	1.853	3.56
49)		Bromobenzene	1.423	1.406	1.438	1.205	1.461	1.387	7.47
50)	P	1,1,2,2-tetrachloroet	0.543	0.560	0.605	0.499	0.635	0.569	9.31
51)		1,2,3-Trichloropropan	0.175	0.176	0.199	0.166	0.199	0.183	8.21
52)		N-Propylbenzene	5.565	5.387	5.570	4.866	5.686	5.415	6.00
53)		2-Chlorotoluene	3.247	3.423	3.736	3.414	3.694	3.503	5.89
54)		4-Chlorotoluene	3.910	3.825	3.895	3.158	4.103	3.778	9.58
55)		1,3,5-trimethylbenzen	4.188	4.134	4.396	3.783	4.333	4.167	5.75
56)		Tert-butylbenzene	4.565	4.536	4.708	4.011	4.484	4.461	5.93
57)		1,2,4-Trimethylbenzen	3.904	3.838	4.054	3.577	3.986	3.872	4.75
58)		Sec-buthylbenzene	5.662	5.614	5.850	5.138	5.408	5.534	4.90
59)		1,3-Dichlorobenzene	2.393	2.349	2.459	2.152	2.500	2.371	5.72
60)		4-Isopropyltoluene	4.884	4.909	5.143	4.428	4.680	4.809	5.59
61)	M	1,4-Dichlorobenzene	2.462	2.309	2.425	2.108	2.453	2.351	6.35
62)		1,2-Dichlorobenzene	1.884	1.813	1.935	1.645	1.935	1.842	6.57
63)		N-buthylbenzene	3.985	4.046	4.119	3.677	3.611	3.888	5.88
64)		1,2-dibromo-3-chlorop	0.143	0.120	0.123	0.109	0.132	0.125	10.09
65)		1,2,4-Trichlorobenzen	1.494	1.329	1.585	1.384	1.178	1.394	11.21
66)		Hexachlorobutadiene	2.039	1.805	2.033	1.720	1.009	1.721	24.51**
67)		Naphthalene	1.045	0.921	1.131	1.018	1.083	1.040	7.57
68)		1,2,3-Trichlorobenzen	1.552	1.005	1.199	1.006	0.893	1.131	22.98*

(#) = Out of Range

(*) = QUANT BASED ON LINEAR REGRESSION

(**) = QUANT BASED ON QUADRATIC REGRESSION

8260MSV1.M Fri Feb 05 14:38:10 1999

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB99\FEB05\05FEB11.D Vial: 2
Acq On : 5 Feb 1999 3:13 pm Operator: S MAURER
Sample : 524.2\8260 ICVA 16.0 UG/L Inst : GC/MS Ins
Misc : 10 ml V0-8-3078 Multiplr: 1.00
'S Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Fri Feb 05 14:37:15 1999
Response via : Multiple Level Calibration

Min. RRF : 0.100 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	Pentafluorobenzene IS #1	1.000	1.000	0.0	90	0.00
2		Dichorodifluoromethane	0.486	0.628	-29.2#	131	0.00
3	P	Chloromethane	0.167	0.181	-8.4	115	0.00
4	C	Vinyl Chloride	0.251	0.275	-9.6	110	0.01
5		Bromomethane	0.202	0.201	0.5	91	0.00
6	M	Chloroethane	0.183	0.188	-2.7	106	0.01
7		Trichlorofluoromethane	0.897	1.044	-16.4	117	0.01
8		1,1,2-Trichloro-1,2,2-Trifl	0.949	0.923	2.7	98	0.01
9	MC	1,1-Dichloroethene	0.603	0.615	-2.0	108	0.00
10		Methylene Chloride	0.387	0.337	12.9	82	0.01
11		MTBE	0.424	0.341	19.6	69	0.01
12		T-1,2-Dichloroethene	0.515	0.504	2.1	91	0.01
13	MP	1,1-Dichloroethane	0.742	0.703	5.3	85	0.01
[illegible]		2,2-Dichloropropane	0.596	0.524	12.1	70	0.01
[illegible]		Cis-1,2-Dichloroethene	0.497	0.480	3.4	86	0.01
[illegible]		Bromochloromethane	0.238	0.230	3.4	82	0.00
17	C	Chloroform	0.934	0.883	5.5	84	0.01
18		1,1,1-Trichloroethane	1.094	1.029	5.9	83	0.01
19	S	1,2-Dichloroethane-d4 SMC 1	0.313	0.307	1.9	97	0.00
20		Carbon Tetrachloride	0.998	1.000	-0.2	102	0.01
21		1,1-Dichloropropene	0.706	0.720	-2.0	103	0.00
22	M	Benzene	1.241	1.232	0.7	102	0.00
23		1,2-Dichloroethane	0.378	0.385	-1.9	105	0.00
24	I	1,4-Difluorobenzene IS # 2	1.000	1.000	0.0	109	0.01
25	M	Trichloroethene	0.446	0.419	6.1	103	0.00
26	C	1,2-Dichloropropane	0.210	0.201	4.3	103	-0.02
27		Dibromomethane	0.140	0.135	3.6	101	0.02
28	M	Bromodichloromethane	0.444	0.415	6.5	101	0.00
29		2-CEVE	0.011	0.006#	45.5#	67	0.01
30		T-1,3-Dichloropropene	0.246	0.237	3.7	104	0.00
31	S	Toluene-D8 SMC #1	0.870	0.881	-1.3	111	0.00
32	MC	Toluene	0.951	0.905	4.8	102	0.00
33		Cis-1,3-Dichloropropene	0.322	0.316	1.9	102	0.01
34		1,1,2-Trichloroethane	0.155	0.171	-10.3	115	0.01
35		Tetrachloroethene	0.531	0.592	-11.5	118	0.00
36		1,3-Dichloropropane	0.219	0.247	-12.8	117	0.01
37		Dibromochloromethane	0.303	0.334	-10.2	117	0.01
38		1,2-Dibromoethane	0.184	0.206	-12.0	120	0.01
[illegible]	I	Chlorobenzene-D5 IS#3	1.000	1.000	0.0	137	0.01
40	MP	Chlorobenzene	2.762	2.598	5.9	125	0.01
41		1,1,1,2-Tetrachloroethane	1.486	1.375	7.5	125	0.00
42	C	Ethylbenzene	4.673	4.306	7.9	123	0.00
43		p+m-Xylene	3.821	3.541	7.3	124	0.01

44		o-Xylene	3.566	3.295	7.6	124	0.00
45		Styrene	2.631	2.434	7.5	123	0.00
46	P	Bromoform	0.713	0.726	-1.8	133	0.00
47		Isopropylbenzene	5.153	5.344	-3.7	137	0.01
48	S	Bromofluorobenzene SMC #3	1.853	1.702	8.1	121	0.00
49		Bromobenzene	1.387	1.154	16.8	110	0.01
50	P	1,1,2,2-tetrachloroethane	0.569	0.566	0.5	128	0.00
51		1,2,3-Trichloropropane	0.183	0.165	9.8	113	0.00
52		N-Propylbenzene	5.415	4.631	14.5	114	0.00
53		2-Chlorotoluene	3.503	2.805	19.9	103	0.01
54		4-Chlorotoluene	3.778	3.312	12.3	116	0.01
55		1,3,5-trimethylbenzene	4.167	3.495	16.1	109	0.00
56		Tert-butylbenzene	4.461	3.801	14.8	110	0.00
57		1,2,4-Trimethylbenzene	3.872	3.284	15.2	111	0.00
58		Sec-buthylbenzene	5.534	4.766	13.9	111	0.01
59		1,3-Dichlorobenzene	2.371	2.020	14.8	112	0.00
60		4-Isopropyltoluene	4.809	4.105	14.6	109	0.00
61	M	1,4-Dichlorobenzene (M)	2.351	2.010	14.5	113	0.01
62		1,2-Dichlorobenzene	1.842	1.578	14.3	112	0.01
63		N-buthylbenzene	3.888	3.394	12.7	113	0.01
64		1,2-dibromo-3-chloropopane	0.125	0.107	14.4	119	0.01
65		1,2,4-Trichlorobenzene	1.394	1.171	16.0	101	0.00
66		Hexachlorobutadiene	1.721	1.529	11.2	103	0.01
67		Naphthalene	1.040	0.887	14.7	107	0.00
68		1,2,3-Trichlorobenzene	1.131	0.954	15.6	109	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
05FEB06.D 8260MSV1.M Fri Feb 05 16:44:06 1999

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB99\FEB05\05FEB29.D Vial: 2
Acq On : 6 Feb 1999 2:54 am Operator: C CARDOZA
Sample : CCV 2 Inst : GC/MS Ins
Misc : 25 ml 16 UG/L; VO-8-3067 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Fri Feb 05 14:37:15 1999
Response via : Multiple Level Calibration

Min. RRF : 0.100 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	Pentafluorobenzene IS #1	1.000	1.000	0.0	88	-0.01
2		Dichorodifluoromethane	0.486	0.579	-19.1	118	0.00
3	P	Chloromethane	0.167	0.182	-9.0	113	0.00
4	C	Vinyl Chloride	0.251	0.272	-8.4	106	0.00
5		Bromomethane	0.202	0.211	-4.5	93	0.00
6	M	Chloroethane	0.183	0.194	-6.0	106	0.00
7		Trichlorofluoromethane	0.897	1.053	-17.4	115	0.00
8		1,1,2-Trichloro-1,2,2-Trifl	0.949	1.060	-11.7	110	0.00
9	MC	1,1-Dichloroethene	0.603	0.606	-0.5	104	0.00
10		Methylene Chloride	0.387	0.319	17.6	76	0.00
11		MTBE	0.424	0.425	-0.2	83	-0.01
12		T-1,2-Dichloroethene	0.515	0.501	2.7	88	0.00
	MP	1,1-Dichloroethane	0.742	0.718	3.2	85	0.00
		2,2-Dichloropropane	0.596	0.666	-11.7	87	0.00
15		Cis-1,2-Dichloroethene	0.497	0.503	-1.2	87	0.00
16		Bromochloromethane	0.238	0.236	0.8	83	-0.01
17	C	Chloroform	0.934	0.931	0.3	86	0.00
18		1,1,1-Trichloroethane	1.094	1.140	-4.2	90	0.00
19	S	1,2-Dichloroethane-d4 SMC 1	0.313	0.319	-1.9	98	-0.01
20		Carbon Tetrachloride	0.998	1.097	-9.9	109	0.02
21		1,1-Dichloropropene	0.706	0.771	-9.2	108	0.00
22	M	Benzene	1.241	1.277	-2.9	103	0.00
23		1,2-Dichloroethane	0.378	0.391	-3.4	104	-0.01
24	I	1,4-Difluorobenzene IS # 2	1.000	1.000	0.0	108	0.00
25	M	Trichloroethene	0.446	0.446	0.0	109	0.00
26	C	1,2-Dichloropropane	0.210	0.204	2.9	103	0.00
27		Dibromomethane	0.140	0.143	-2.1	106	0.02
28	M	Bromodichloromethane	0.444	0.440	0.9	106	0.00
29		2-CEVE	0.011	0.008#	27.3#	91	0.00
30		T-1,3-Dichloropropene	0.246	0.241	2.0	105	-0.01
31	S	Toluene-D8 SMC #1	0.870	0.897	-3.1	112	0.00
32	MC	Toluene	0.951	0.952	-0.1	107	-0.01
33		Cis-1,3-Dichloropropene	0.322	0.320	0.6	102	0.00
34		1,1,2-Trichloroethane	0.155	0.154	0.6	103	-0.01
35		Tetrachloroethene	0.531	0.538	-1.3	107	0.00
36		1,3-Dichloropropane	0.219	0.207	5.5	97	-0.01
		Dibromochloromethane	0.303	0.299	1.3	104	0.02
		1,2-Dibromoethane	0.184	0.171	7.1	99	0.00

39-I----Chlorobenzene-D5-IS#3---------1.000---1.000-------0.0--115---0.01-

(#) = Out of Range

BOE-C6-0234319

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB99\FEB05\05FEB29.D Vial: 2
Acq On : 6 Feb 1999 2:54 am Operator: C CARDOZA
Sample : CCV 2 Inst : GC/MS Ins
Misc : 25 ml 16 UG/L; VO-8-3067 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Fri Feb 05 14:37:15 1999
Response via : Multiple Level Calibration

Min. RRF : 0.100 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)
40	MP	Chlorobenzene	2.762	2.738	0.9	110	0.00
41		1,1,1,2-Tetrachloroethane	1.486	1.470	1.1	112	-0.01
42	C	Ethylbenzene	4.673	4.719	-1.0	113	-0.01
43		p+m-Xylene	3.821	3.862	-1.1	114	0.00
44		o-Xylene	3.566	3.584	-0.5	114	-0.01
45		Styrene	2.631	2.651	-0.8	112	-0.01
46	P	Bromoform	0.713	0.706	1.0	108	-0.01
47		Isopropylbenzene	5.153	5.436	-5.5	117	0.00
48	S	Bromofluorobenzene SMC #3	1.853	1.902	-2.6	114	-0.01
49		Bromobenzene	1.387	1.333	3.9	106	0.00
50	P	1,1,2,2-tetrachloroethane	0.569	0.527	7.4	100	-0.01
51		1,2,3-Trichloropropane	0.183	0.201	-9.8	116	-0.01
52		N-Propylbenzene	5.415	5.459	-0.8	113	0.00
53		2-Chlorotoluene	3.503	3.777	-7.8	116	0.00
54		4-Chlorotoluene	3.778	3.463	8.3	102	0.00
55		1,3,5-trimethylbenzene	4.167	4.202	-0.8	110	-0.01
56		Tert-butylbenzene	4.461	4.483	-0.5	109	0.00
57		1,2,4-Trimethylbenzene	3.872	3.919	-1.2	111	0.00
58		Sec-buthylbenzene	5.534	5.760	-4.1	113	0.00
59		1,3-Dichlorobenzene	2.371	2.323	2.0	109	-0.01
60		4-Isopropyltoluene	4.809	5.015	-4.3	112	-0.01
61	M	1,4-Dichlorobenzene (M)	2.351	2.308	1.8	109	0.00
62		1,2-Dichlorobenzene	1.842	1.800	2.3	107	0.00
63		N-buthylbenzene	3.888	4.117	-5.9	115	0.00
64		1,2-dibromo-3-chloropopane	0.125	0.119	4.8	111	0.00
65		1,2,4-Trichlorobenzene	1.394	1.528	-9.6	111	0.00
66		Hexachlorobutadiene	1.721	1.965	-14.2	111	0.00
67		Naphthalene	1.040	1.097	-5.5	111	-0.01
68		1,2,3-Trichlorobenzene	1.131	1.189	-5.1	114	-0.01

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB99\FEB05\06FEB07.D
Acq On : 6 Feb 1999 2:36 pm
Sample : CCV 3
Misc : 16.0 UG/L; VO-8-3067
Integration Params: RTEINT.P

Vial: 2
Operator: M. CHAVEZ
Inst : GC/MS Ins
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Fri Feb 05 14:37:15 1999
Response via : Multiple Level Calibration

Min. RRF : 0.100 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	Pentafluorobenzene IS #1	1.000	1.000	0.0	81	0.00
2		Dichorodifluoromethane	0.486	0.591	-21.6#	112	0.00
3	P	Chloromethane	0.167	0.193	-15.6	111	0.00
4	C	Vinyl Chloride	0.251	0.282	-12.4	102	0.00
5		Bromomethane	0.202	0.183	9.4	75	0.00
6	M	Chloroethane	0.183	0.189	-3.3	96	0.00
7		Trichlorofluoromethane	0.897	1.050	-17.1	106	0.00
8		1,1,2-Trichloro-1,2,2-Trifl	0.949	1.065	-12.2	102	0.00
9	MC	1,1-Dichloroethene	0.603	0.619	-2.7	98	0.00
10		Methylene Chloride	0.387	0.318	17.8	70	0.00
11		MTBE	0.424	0.361	14.9	66	0.00
12		T-1,2-Dichloroethene	0.515	0.489	5.0	79	0.00
13	MP	1,1-Dichloroethane	0.742	0.701	5.5	76	0.01
		2,2-Dichloropropane	0.596	0.602	-1.0	73	0.01
		Cis-1,2-Dichloroethene	0.497	0.470	5.4	76	0.01
16		Bromochloromethane	0.238	0.223	6.3	72	0.00
17	C	Chloroform	0.934	0.906	3.0	77	0.01
18		1,1,1-Trichloroethane	1.094	1.104	-0.9	81	0.00
19	S	1,2-Dichloroethane-d4 SMC 1	0.313	0.303	3.2	86	0.00
20		Carbon Tetrachloride	0.998	1.056	-5.8	97	0.01
21		1,1-Dichloropropene	0.706	0.743	-5.2	96	0.00
22	M	Benzene	1.241	1.211	2.4	90	0.00
23		1,2-Dichloroethane	0.378	0.365	3.4	90	0.00
24	I	1,4-Difluorobenzene IS # 2	1.000	1.000	0.0	95	0.00
25	M	Trichloroethene	0.446	0.451	-1.1	97	0.00
26	C	1,2-Dichloropropane	0.210	0.202	3.8	90	-0.02
27		Dibromomethane	0.140	0.136	2.9	89	0.02
28	M	Bromodichloromethane	0.444	0.431	2.9	91	0.00
29		2-CEVE	0.011	0.007#	36.4#	77	0.00
30		T-1,3-Dichloropropene	0.246	0.241	2.0	92	-0.02
31	S	Toluene-D8 SMC #1	0.870	0.901	-3.6	99	-0.02
32	MC	Toluene	0.951	0.952	-0.1	94	-0.02
33		Cis-1,3-Dichloropropene	0.322	0.316	1.9	89	0.00
34		1,1,2-Trichloroethane	0.155	0.147	5.2	86	-0.02
35		Tetrachloroethene	0.531	0.564	-6.2	98	0.00
36		1,3-Dichloropropane	0.219	0.221	-0.9	91	-0.02
37		Dibromochloromethane	0.303	0.309	-2.0	94	0.01
38		1,2-Dibromoethane	0.184	0.183	0.5	93	0.00
3		Chlorobenzene-D5 IS#3	1.000	1.000	0.0	102	-0.02
40	MP	Chlorobenzene	2.762	2.621	5.1	94	0.00
41		1,1,1,2-Tetrachloroethane	1.486	1.439	3.2	97	-0.02
42	C	Ethylbenzene	4.673	4.575	2.1	97	0.00
43		p+m-Xylene	3.821	3.723	2.6	97	0.00

44		o-Xylene	3.566	3.451	3.2	97	0.00
*45		Styrene	2.631	2.528	3.9	95	0.00
46	P	Bromoform	0.713	0.692	2.9	94	-0.02
47		Isopropylbenzene	5.153	5.250	-1.9	100	0.00
48	S	Bromofluorobenzene SMC #3	1.853	1.866	-0.7	99	0.00
49		Bromobenzene	1.387	1.345	3.0	95	0.00
50	P	1,1,2,2-tetrachloroethane	0.569	0.527	7.4	89	-0.02
51		1,2,3-Trichloropropane	0.183	0.169	7.7	87	-0.02
52		N-Propylbenzene	5.415	5.459	-0.8	100	0.00
53		2-Chlorotoluene	3.503	3.562	-1.7	97	0.00
54		4-Chlorotoluene	3.778	3.594	4.9	94	0.00
55		1,3,5-trimethylbenzene	4.167	4.145	0.5	96	-0.02
56		Tert-butylbenzene	4.461	4.599	-3.1	100	0.00
57		1,2,4-Trimethylbenzene	3.872	3.899	-0.7	98	0.00
58		Sec-buthylbenzene	5.534	5.821	-5.2	102	0.00
59		1,3-Dichlorobenzene	2.371	2.281	3.8	95	-0.02
60		4-Isopropyltoluene	4.809	5.050	-5.0	100	0.00
61	M	1,4-Dichlorobenzene (M)	2.351	2.236	4.9	94	0.00
62		1,2-Dichlorobenzene	1.842	1.760	4.5	93	0.00
63		N-buthylbenzene	3.888	3.962	-1.9	98	0.00
64		1,2-dibromo-3-chloropopane	0.125	0.102	18.4	85	0.00
65		1,2,4-Trichlorobenzene	1.394	1.336	4.2	86	0.00
66		Hexachlorobutadiene	1.721	1.830	-6.3	92	0.00
67		Naphthalene	1.040	0.943	9.3	85	0.00
68		1,2,3-Trichlorobenzene	1.131	1.028	9.1	88	0.00

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

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BC LABORATORIES

B C LABORATORIES
QUALITY CONTROL REPORT
(Precision & Accuracy)
Method 8260

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9 - 99-01424-11, 99-01424-8TB

Constituents	QC Sample ID	Sample Result	MS Result	MSD Result	MS Spike Level	MSD Spike Level	Units	Spike R.P.D.	Precision Control Limits	MS % Rec	MSD % Rec	Accuracy Control Limits
Benzene	1424-9	< 0.5	16.51	16.09	16.00	16.00	µg/L	3.	20	103.	101.	80 - 120
Bromodichloromethane	1424-9	< 0.5	15.44	15.34	16.00	16.00	µg/L	1.	20	97.	96.	80 - 120
Chlorobenzene	1424-9	< 0.5	15.89	15.16	16.00	16.00	µg/L	5.	20	99.	95.	80 - 120
Chloroethane	1424-9	< 0.5	17.56	17.65	16.00	16.00	µg/L	1.	20	110.	110.	80 - 120
1,4-Dichlorobenzene	1424-9	< 0.5	15.34	14.95	16.00	16.00	µg/L	3.	20	96.	93.	80 - 120
1,1-Dichloroethane	1424-9	< 0.5	15.20	15.38	16.00	16.00	µg/L	1.	20	95.	96.	80 - 120
1,1-Dichloroethene	1424-9	< 0.5	16.67	16.69	16.00	16.00	µg/L	0.	20	104.	104.	80 - 120
Toluene	1424-9	< 0.5	16.90	16.04	16.00	16.00	µg/L	5.	20	106.	100.	80 - 120
Trichloroethene	1424-9	< 0.5	16.67	15.92	16.00	16.00	µg/L	5.	20	104.	100.	80 - 120
1,2-Dichloroethane-d4	MS/MSD									94.	103.	76 - 114
Toluene-d8	MS/MSD									106.	103.	88 - 110
4-Bromofluorobenzene	MS/MSD									101.	100.	86 - 115

MS = Matrix Spike; MSD = Matrix Spike Duplicate; RPD = Relative Percent Difference

Quality Control Officer

Anthony Bonanno

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BC LABORATORIES

B C LABORATORIES
QUALITY CONTROL REPORT
(Laboratory Control Sample)
Method 8260

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9 - 99-01424-11, 99-01424-8TB

Constituents	QC Sample ID	Sample Result	Spike Level	Units	% Rec	Accuracy Control Limits
Benzene	CCV2	16.46	16.00	µg/L	103.	80 - 120
Bromodichloromethane	CCV2	15.86	16.00	µg/L	99.	80 - 120
Chlorobenzene	CCV2	15.86	16.00	µg/L	99.	80 - 120
Chloroethane	CCV2	16.96	16.00	µg/L	106.	80 - 120
1,4-Dichlorobenzene	CCV2	15.71	16.00	µg/L	98.	80 - 120
1,1-Dichloroethane	CCV2	15.48	16.00	µg/L	97.	80 - 120
1,1-Dichloroethene	CCV2	16.08	16.00	µg/L	100.	80 - 120
Toluene	CCV2	16.02	16.00	µg/L	100.	80 - 120
Trichloroethene	CCV2	16.00	16.00	µg/L	100.	80 - 120
1,2-Dichloroethane-d4	CCV2				102.	76 - 114
Toluene-d8	CCV2				103.	88 - 110
4-Bromofluorobenzene	CCV2				103.	86 - 115

Quality Control Officer

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LABORATORIES

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QUALITY CONTROL REPORT
(Preparation & Analysis Information)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9, 99-01424-10

Constituents	Preparation Method	Preparation Date	Preparation Technician	Analytical Method	Run Date	Analyst
Hexavalent Chromium	0.45uFilt	02/04/99		EPA-7196	02/04/99	TDC
Total Aluminum	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Antimony	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Arsenic	SM-3114B	02/08/99	KSV	SM-3114B	02/09/99	TMS
Total Barium	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Beryllium	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Cadmium	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Chromium	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Cobalt	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Copper	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Lead	EPA-3020	02/05/99	PAP	EPA-7421	02/09/99	KAS
Total Mercury	EPA-7470	02/08/99	DIW	EPA-7470	02/08/99	DIW
Total Molybdenum	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Nickel	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Selenium	SM-3114B	02/08/99	KSV	SM-3114B	02/09/99	TMS
Total Silver	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Titanium	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Thallium	EPA-3010	02/05/99	PAP	EPA-7841	02/10/99	KAS
Total Vanadium	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM
Total Zinc	EPA-3010	02/05/99	PAP	EPA-6010	02/08/99	MTM

Quality Control Officer

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BOE-C6-0234325

BC LABORATORIES

B C LABORATORIES
QUALITY CONTROL REPORT
(Instrumental & Blank Parameters)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9, 99-01424-10

Constituents	ICV % Found	ICV %Found Control Limits	CCV % Found Before	CCV % Found After	% Found Control Limits	CCB Readings Before	Units	CCB Readings After	Units	Method Blank Readings	Units
Hexavalent Chromium	99.	90 - 110	94.	94.	90 - 110	< 0.002	mg/L	< 0.002	mg/L	< 2.0	µg/L
Total Aluminum	103.	90 - 110	99.	105.	90 - 110	<50.	µg/L	<50.	µg/L	<50.	µg/L
Total Antimony	103.	90 - 110	100.	101.	90 - 110	<100.	µg/L	<100.	µg/L	<100.	µg/L
Total Arsenic	105.	90 - 110	105.	99.	90 - 110	< 1.	µg/L	< 1.	µg/L	< 2.	µg/L
Total Barium	98.	90 - 110	99.	106.	90 - 110	<100.	µg/L	<100.	µg/L	<100.	µg/L
Total Beryllium	100.	90 - 110	98.	103.	90 - 110	<10.	µg/L	<10.	µg/L	<10.	µg/L
Total Cadmium	100.	90 - 110	100.	102.	90 - 110	<10.	µg/L	<10.	µg/L	<10.	µg/L
Total Chromium	99.	90 - 110	100.	103.	90 - 110	<10.	µg/L	<10.	µg/L	<10.	µg/L
Total Cobalt	100.	90 - 110	103.	104.	90 - 110	<50.	µg/L	<50.	µg/L	<50.	µg/L
Total Copper	100.	90 - 110	102.	108.	90 - 110	<10.	µg/L	<10.	µg/L	<10.	µg/L
Total Lead	99.	90 - 110	101.	104.	90 - 110	< 5.	µg/L	< 5.	µg/L	< 5.	µg/L
Total Mercury	103.	90 - 110	108.	98.	90 - 110	< 0.08	µg/L	< 0.08	µg/L	< 0.2	µg/L
Total Molybdenum	100.	90 - 110	101.	103.	90 - 110	<50.	µg/L	<50.	µg/L	<50.	µg/L
Total Nickel	101.	90 - 110	100.	102.	90 - 110	<50.	µg/L	<50.	µg/L	<50.	µg/L
Total Selenium	103.	90 - 110	103.	99.	90 - 110	< 1.	µg/L	< 1.	µg/L	< 2.	µg/L
Total Silver	100.	90 - 110	103.	107.	90 - 110	<10.	µg/L	<10.	µg/L	<10.	µg/L
Total Titanium	98.	90 - 110	96.	102.	90 - 110	<10.	µg/L	<10.	µg/L	<10.	µg/L
Total Thallium	100.	90 - 110	101.	100.	90 - 110	< 1.	µg/L	< 1.	µg/L	< 1.	µg/L
Total Vanadium	101.	90 - 110	101.	104.	90 - 110	<10.	µg/L	<10.	µg/L	<10.	µg/L
Total Zinc	102.	90 - 110	105.	106.	90 - 110	<50.	µg/L	<50.	µg/L	<50.	µg/L

ICV = Initial Calibration Verification; CCV = Continuing Calibration Verification; CCB = Continuing Calibration Blank

Quality Control Officer

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LABORATORIES

B C LABORATORIES
QUALITY CONTROL REPORT
(Precision & Accuracy)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9, 99-01424-10

Constituents	QC Sample ID	Sample Result	Sample Duplicate	MS Result	MSD Result	MS Spike Level	MSD Spike Level	Units	Sample R.P.D.	Spike R.P.D.	Precision Control Limits	MS % Rec	MSD % Rec	Accuracy Control Limits
Hexavalent Chromium	1424-9	< 2.000	< 2.000	49.52	50.17	52.60	52.60	µg/L	<PQL	1.	10	93.	94.	85 - 115
Total Aluminum	TOTAL-1424-10	< 50.	< 50.	470.6	475.9	400.0	400.0	µg/L	<PQL	1.	20	117.	118.	80 - 120
Total Antimony	TOTAL-1424-10	<100.	<100.	410.8	423.2	400.0	400.0	µg/L	<PQL	3.	20	103.	107.	80 - 120
Total Arsenic	TOTAL-1424-10	< 2.	< 2.	20.4	19.78	20.00	20.00	µg/L	<PQL	3.	20	102.	99.	80 - 120
Total Barium	TOTAL-1424-10	<100.	<100.	213.8	214.3	200.0	200.0	µg/L	<PQL	0.	20	107.	107.	80 - 120
Total Beryllium	TOTAL-1424-10	< 10.	< 10.	199.	198.7	200.0	200.0	µg/L	<PQL	0.	20	100.	99.	80 - 120
Total Cadmium	TOTAL-1424-10	< 10.	< 10.	198.9	197.3	200.0	200.0	µg/L	<PQL	1.	20	100.	99.	80 - 120
Total Chromium	TOTAL-1424-10	< 10.	< 10.	205.1	206.5	200.0	200.0	µg/L	<PQL	1.	20	103.	104.	80 - 120
Total Cobalt	TOTAL-1424-10	< 50.	< 50.	213.6	212.8	200.0	200.0	µg/L	<PQL	0.	20	108.	107.	80 - 120
Total Copper	TOTAL-1424-10	29.5	30.	248.7	250.6	200.0	200.0	µg/L	2.	1.	20	110.	111.	80 - 120
Total Lead	TOTAL-01424-9	< 5.	< 5.	22.08	21.71	20.00	20.00	µg/L	<PQL	2.	20	110.	108.	83 - 113
Total Mercury	TOTAL-01424-9	< 0.2	< 0.2	1.027	0.9812	1.000	1.000	µg/L	<PQL	5.	20	101.	97.	70 - 130
Total Molybdenum	TOTAL-1424-10	< 50.	< 50.	212.8	216.2	200.0	200.0	µg/L	<PQL	2.	20	106.	108.	80 - 120
Total Nickel	TOTAL-1424-10	< 50.	< 50.	405.2	404.	400.0	400.0	µg/L	<PQL	0.	20	101.	101.	80 - 120
Total Selenium	TOTAL-1424-10	< 2.	< 2.	20.08	18.68	20.00	20.00	µg/L	<PQL	7.	20	101.	94.	64 - 120
Total Silver	TOTAL-1424-10	< 10.	< 10.	203.7	205.8	200.0	200.0	µg/L	<PQL	1.	20	102.	103.	80 - 120
Total Titanium	TOTAL-1424-10	< 10.	< 10.	203.3	204.2	200.0	200.0	µg/L	<PQL	0.	20	101.	102.	80 - 120
Total Thallium	TOTAL-01424-9	< 1.	< 1.	22.38	22.35	20.00	20.00	µg/L	<PQL	0.	20	111.	111.	85 - 115
Total Vanadium	TOTAL-1424-10	< 10.	< 10.	207.3	207.8	200.0	200.0	µg/L	<PQL	0.	20	103.	104.	80 - 120
Total Zinc	TOTAL-1424-10	< 50.	< 50.	219.7	220.3	200.0	200.0	µg/L	<PQL	0.	20	105.	105.	80 - 120

MS = Matrix Spike; MSD = Matrix Spike Duplicate; RPD = Relative Percent Difference

Quality Control Officer

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BOE-C6-0234327

BC LABORATORIES

B C LABORATORIES
QUALITY CONTROL REPORT
(Laboratory Control Sample)

ARCADIS GERAGHTY & MILLER, INC.
1 TECHNOLOGY DRIVE, SUITE F213
IRVINE, CA 92618
DERRICK WILLIS

Date of Report: 03/14/99
Sample Matrix: Water

Samples Affected: 99-01424-9, 99-01424-10

Constituents	QC Sample ID	Sample Result	Spike Level	Units	% Rec	Accuracy Control Limits
Hexavalent Chromium	LCSW-02-04	1002.	1000.	µg/L	100.	90 - 110
Total Aluminum	TOTAL-LCSW	420.1	400.	µg/L	105.	80 - 120
Total Antimony	TOTAL-LCSW	406.1	400.	µg/L	102.	80 - 120
Total Arsenic	LCSW1-02-0	10.11	10.	µg/L	101.	80 - 120
Total Barium	TOTAL-LCSW	206.5	200.	µg/L	103.	80 - 120
Total Beryllium	TOTAL-LCSW	196.6	200.	µg/L	98.	80 - 120
Total Cadmium	TOTAL-LCSW	196.1	200.	µg/L	98.	80 - 120
Total Chromium	TOTAL-LCSW	198.8	200.	µg/L	99.	80 - 120
Total Cobalt	TOTAL-LCSW	211.7	200.	µg/L	106.	80 - 120
Total Copper	TOTAL-LCSW	204.7	200.	µg/L	102.	80 - 120
Total Lead	TOTAL-LCSW	22.11	20.	µg/L	111.	80 - 120
Total Mercury	LCSW2-02-0	1.018	1.0	µg/L	102.	85 - 115
Total Molybdenum	TOTAL-LCSW	210.1	200.	µg/L	105.	80 - 120
Total Nickel	TOTAL-LCSW	402.	400.	µg/L	101.	80 - 120
Total Selenium	LCSW1-02-0	9.42	10.	µg/L	94.	80 - 120
Total Silver	TOTAL-LCSW	199.7	200.	µg/L	100.	80 - 120
Total Titanium	TOTAL-LCSW	197.9	200.	µg/L	99.	80 - 120
Total Thallium	TOTAL-LCSW	21.86	20.	µg/L	109.	80 - 120
Total Vanadium	TOTAL-LCSW	203.3	200.	µg/L	102.	80 - 120
Total Zinc	TOTAL-LCSW	209.3	200.	µg/L	105.	80 - 120

Quality Control Officer

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BOE-C6-0234328