

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-24-1

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/24/02 2:34:00 PM

Lab ID: 055394-027A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium

5.2

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RA

27

Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

040



Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories **Client Sample ID:** MW-11-5
Lab Order: 055394
Project: JPL #00HW019 **Collection Date:** 1/25/02 10:18:00 AM
Lab ID: 055394-028A **Matrix:** Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B	BatchID: R15562	PrepDate:	Analyst: NS		
Chromium	ND	5.0	µg/L	1.0	2/15/02
Lead	ND	1.0	µg/L	1.0	2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike/Surrogate outside of limits due to matrix interference.
J - Analyte detected below quantitation limits H - Samples exceeding analytical holding time
B - Analyte detected in the associated Method Blank E - Value above quantitation range
DO - Surrogate Diluted Out M - Not Monitored. Highly Reactive

Initials: RA



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028
41

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-11-4

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/25/02 9:43:00 AM

Lab ID: 055394-029A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium

2.1

1.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RA



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29
642

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories **Client Sample ID:** MW-11-3
Lab Order: 055394
Project: JPL #00HW019 **Collection Date:** 1/25/02 10:54:00 AM
Lab ID: 055394-030A **Matrix:** Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP-MS METALS		EPA 200.8				
RunID: ICP4_020215B	BatchID: R15562	PrepDate:				Analyst: NS
Chromium	ND	5.0		µg/L	1.0	2/15/02
Lead	ND	1.0		µg/L	1.0	2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike/Surrogate outside of limits due to matrix interference.
J - Analyte detected below quantitation limits H - Samples exceeding analytical holding time
B - Analyte detected in the associated Method Blank E - Value above quantitation range
DO - Surrogate Diluted Out M - Not Monitored. Highly Reactive

Initials: RA
043
30



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Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-11-2

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/25/02 11:52:00 AM

Lab ID: 055394-031A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: RA

6/44



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Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-11-1

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/25/02 12:33:00 PM

Lab ID: 055394-032A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: RA

0345



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: ER-11

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/25/02 10:33:00 AM

Lab ID: 055394-033A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS**EPA 200.8**

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RA

646



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-22-5

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/28/02 11:31:00 AM

Lab ID: 055394-034A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RA

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-22-4

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/28/02 12:46:00 PM

Lab ID: 055394-035A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: RA

048



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-22-3

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/28/02 1:30:00 PM

Lab ID: 055394-036A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RA

648



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories **Client Sample ID:** MW-22-2
Lab Order: 055394
Project: JPL #00HW019 **Collection Date:** 1/28/02 2:23:00 PM
Lab ID: 055394-037A **Matrix:** Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium	ND	5.0		µg/L	1.0	2/15/02
Lead	ND	1.0		µg/L	1.0	2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: *RA*
050
37



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Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-22-1

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/28/02 3:02:00 PM

Lab ID: 055394-038A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium

5.1

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: *RA*

Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

051³⁸



Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: ER-12

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/28/02 12:28:00 PM

Lab ID: 055394-039A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: RA

3052



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-13

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/29/02 2:35:00 PM

Lab ID: 055394-040A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

120

50

µg/L

10

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: *RA*

053
40



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-16

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/29/02 4:04:00 PM

Lab ID: 055394-041A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215B

BatchID: R15562

PrepDate:

Analyst: NS

Chromium

14

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: **RA**

054



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories Client Sample ID: MW-16D
Lab Order: 055394
Project: JPL #00HW019 Collection Date: 1/29/02 4:04:00 PM
Lab ID: 055394-042A Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium	18	5.0		µg/L	1.0	2/15/02
Lead	ND	1.0		µg/L	1.0	2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RA



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Laboratories

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42 055

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-5

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/31/02 9:57:00 AM

Lab ID: 055394-043A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

6.8

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: RA

43



Advanced Technology
Laboratories

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Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-10

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 1/31/02 1:47:00 PM

Lab ID: 055394-044A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

8.2

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: RA

057



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-6

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/1/02 10:31:00 AM

Lab ID: 055394-045A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

200

100

µg/L

20

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RA

058



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-15

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/1/02 9:17:00 AM

Lab ID: 055394-046A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

13

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: RA



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

46
059

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-15D

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/1/02 9:17:00 AM

Lab ID: 055394-047A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP-MS METALS		EPA 200.8				
RunID: ICP4_020215C	BatchID: R15564	PrepDate:				Analyst: NS
Chromium	10	5.0		µg/L	1.0	2/15/02
Lead	ND	1.0		µg/L	1.0	2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RA

47 060



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories
Lab Order: 055394
Project: JPL #00HW019
Lab ID: 055394-048A

Client Sample ID: MW-1

Collection Date: 2/4/02 12:30:00 PM

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RA

4861



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-9

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/4/02 2:34:00 PM

Lab ID: 055394-049A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: *RA*

062



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-4-5

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/5/02 11:23:00 AM

Lab ID: 055394-050A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

6.4

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: **RA**
063
50



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-4-4

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/5/02 12:28:00 PM

Lab ID: 055394-051A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

6.5

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: RA



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

064

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-4-3

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/5/02 1:27:00 PM

Lab ID: 055394-052A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: RA065

52



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: NW-4-3D

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/5/02 1:27:00 PM

Lab ID: 055394-053A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: **RA**

53



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: ER-13

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/5/02 1:44:00 PM

Lab ID: 055394-054A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RA

067

54

Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040



Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-4-2

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/5/02 2:25:00 PM

Lab ID: 055394-055A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

11

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: RA

008



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-4-1

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/5/02 4:37:00 PM

Lab ID: 055394-056A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

ICP-MS METALS

EPA 200.8

RunID: ICP4_020215C

BatchID: R15564

PrepDate:

Analyst: NS

Chromium

ND

5.0

µg/L

1.0

2/15/02

Lead

ND

1.0

µg/L

1.0

2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: *RA*

56

069



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: 2/20/02

CLIENT: Applied P & Ch Laboratories

Client Sample ID: MW-8

Lab Order: 055394

Project: JPL #00HW019

Collection Date: 2/6/02 11:44:00 AM

Lab ID: 055394-057A

Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP-MS METALS		EPA 200.8				
RunID: ICP4_020215C	BatchID: R15564	PrepDate:		Analyst: NS		
Chromium	6.9	5.0		µg/L	1.0	2/15/02
Lead	ND	1.0		µg/L	1.0	2/15/02

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RA
C 370



Advanced Technology
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

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

APCL Analytical Report

Submitted to:

SOTA Environmental

Attention: Yu Zeng

16835 W. Bernardo Dr, Ste. 212

San Diego CA 92127

Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-021222

Collected by:

Collected on: 01/08-10/02

Received: 01/09/02

Extracted: N/A

Tested: N/A

Reported: 02/25/02

Sample Description: Water

Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result			
				ER-1	ER-2	ER-3	MW-3-1
				02-01222-1	02-01222-2	02-01222-3	02-01222-4

CHROMIUM ^(a)

LEAD ^(a)

Component Analyzed	Method	Unit	PQL	Analysis Result			
				MW-3-2	MW-3-3	MW-3-4	MW-3-5
				02-01222-5	02-01222-6	02-01222-7	02-01222-8

CHROMIUM ^(a)

LEAD ^(a)

Component Analyzed	Method	Unit	PQL	Analysis Result			
				MW-17-1	MW-17-2	MW-17-3	MW-17-4
				02-01222-9	02-01222-10	02-01222-11	02-01222-12

CHROMIUM ^(a)

LEAD ^(a)

Component Analyzed	Method	Unit	PQL	Analysis Result		
				MW-17-5	MW-21-1	MW-21-2
				02-01222-13	02-01222-14	02-01222-15

CHROMIUM ^(a)

LEAD ^(a)

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result		
				MW-21-3	MW-21-4	MW-21-5
				02-01222-16	02-01222-17	02-01222-18
CHROMIUM ^(a)						
LEAD ^(a)						

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit.

"-": Analysis is not required.

J: Reported between PQL and MDL.

† All results are reported on dry basis for soil samples.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

^(a) Subcontracted to Advanced Technology Laboratories Inc. See attached.

Respectfully submitted,



Dominic Lau

Laboratory Director

Applied P & Ch Laboratory

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

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

APCL Analytical Report

Submitted to:

SOTA Environmental

Attention: Yu Zeng

16835 W. Bernardo Dr, Ste. 212

San Diego CA 92127

Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-021224

Collected by:

Collected on: 01/14-16/02

Received: 01/14/02

Extracted: N/A

Tested: N/A

Reported: 02/25/02

Sample Description: Water

Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result			
				ER-4	ER-5	ER-6	MW-18-2
				02-01224-1	02-01224-2	02-01224-3	02-01224-4

CHROMIUM ^(a)

LEAD ^(a)

Component Analyzed	Method	Unit	PQL	Analysis Result			
				MW-18-3	MW-18-4	MW-18-5	MW-18-3D
				02-01224-5	02-01224-6	02-01224-7	02-01224-8

CHROMIUM ^(a)

LEAD ^(a)

Component Analyzed	Method	Unit	PQL	Analysis Result			
				MW-19-1	MW-19-2	MW-19-3	MW-19-4
				02-01224-9	02-01224-10	02-01224-11	02-01224-12

CHROMIUM ^(a)

LEAD ^(a)

Component Analyzed	Method	Unit	PQL	Analysis Result			
				MW-19-5	MW-19-3D	MW-20-1	MW-20-2
				02-01224-13	02-01224-14	02-01224-15	02-01224-16

CHROMIUM ^(a)

LEAD ^(a)

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

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

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result		
				MW-20-3	MW-20-4	MW-20-5
				02-01224-17	02-01224-18	02-01224-19
CHROMIUM ^(a)						
LEAD ^(a)						

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit.

"-": Analysis is not required.

J: Reported between PQL and MDL.

† All results are reported on dry basis for soil samples.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

^(a) Subcontracted to Advanced Technology Laboratories Inc. See attached.

Respectfully submitted,



Dominic Lau

Laboratory Director

Applied P & Ch Laboratory

Case Narrative

Client: Applied P & Ch Laboratory
Attn: Kenny Chan
Client's Project: Sota

ATL Number: 055085-001A / 037A
Date Received: 01/25/02

Advanced Technology Laboratories received 37 water sample(s) (including field samples) for sample analysis. All receiving information is located on the Chain-of-Custody, which has been included in the data package.

Table's 1a/1b describe in detail the individual sample information. Table 2 describes some important information associated with the sample batch.

Table 1a: Sample Description

Lab Sample ID	Client Sample ID	Sample Description	Matrix
055085-001A	02-1222-18	MW-21-5	Water
055085-002A	02-1222-17	MW-21-4	Water
055085-003A	02-1222-16	MW-21-3	Water
055085-004A	02-1222-15	MW-21-2	Water
055085-005A	02-1222-14	MW-21-1	Water
055085-006A	02-1222-1	ER-1 (Equip. Rinsate)	Water
055085-007A	02-1222-13	MW-17-5	Water
055085-008A	02-1222-12	MW-17-4	Water
055085-009A	02-1222-11	MW-17-3	Water
055085-010A	02-1222-10	MW-17-2	Water
055085-011A	02-1222-9	MW-17-1	Water
055085-012A	02-1222-2	ER-2	Water
055085-013A	02-1222-8	MW-3-5	Water
055085-014A	02-1222-7	MW-3-4	Water
055085-015A	02-1222-6	MW-3-3	Water
055085-016A	02-1222-5	MW-3-2	Water
055085-017A	02-1222-4	MW-3-1	Water
055085-018A	02-1222-3	ER-3	Water
055085-019A	02-1224-7	MW-18-5	Water
055085-020A	02-1224-6	MW-18-4	Water
055085-021A	02-1224-5	MW-18-3	Water
055085-022A	02-1224-8	MW-18-3D	Water
055085-023A	02-1224-4	MW-18-2	Water
055085-024A	02-1224-1	ER-4 (Equip. Rinsate)	Water
055085-025A	02-1224-13	MW-19-5	Water
055085-026A	02-1224-12	MW-19-4	Water
055085-027A	02-1224-11	MW-19-3	Water



Table 1b: Sample Description

Lab Sample ID	Client Sample ID	Sample Description	Matrix
055085-028A	02-1224-14	MW-19-3D	Water
055085-029A	02-1224-10	MW-19-2	Water
055085-030A	02-1224-6	MW-19-1	Water
055085-031A	02-1224-2	ER-5	Water
055085-032A	02-1224-19	MW-20-5	Water
055085-033A	02-1224-18	MW-20-4	Water
055085-034A	02-1224-17	MW-20-3	Water
055085-035A	02-1224-16	MW-20-2	Water
055085-036A	02-1224-15	MW-20-1	Water
055085-037A	02-1224-3	ER-6	Water

Table 2: Sample Batch Information

Test Name	Analysis Method	QC Batch Number	Associated Samples	Analysis Date
ICP_MS Metals	EPA 200.8	R15074	055085-001A/013A, 055085-015A/020A	1/30/02
		R15040	055085-014A 055085-021A/037A	1/30/02
				1/30/02

ATL samples 055085-001A / 037A did not require digestion (see attached turbidity check log). The Prep Date on the report is the analytical date of the turbidity check.

Table 3: QC Anomalies

Item	Cause/Reason
055085-014A	4 times dilution was applied to this sample due to the results were out side the calibration curve and or matrix interference.

The client requested a Level "D" data package requirement. The QC anomalies, which are listed in Table 3, appear to not have any significant impact on the analytical results. See cause and reasons for each anomaly that is listed in the table.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (562) 989-4045 if I can be of further assistance to your company.

Sincerely,

Edgar P. Caballero
for Edgar P. Caballero
Laboratory Director



Data Qualifiers

Data Qualifiers are used in conjunction with the results in order to explain certain anomalies which may have occurred during sample analysis. If a result data qualifier is reported, then an explanation of the occurrence and the effects it has on the results must accompany the report.

The following table describes each data qualifier:

Symbol	Definition
B	This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compounds.
D	Duplicate injection precision not met.
E	The reported value is estimated because of interference.
J	This indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero.
N	This flag indicated presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.
S	Spike sample recovery not within control limits.
SA	The reported value was determined by the Method of Standard Additions (MSA).
U	This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted accordingly.
W	Post Digestion Spike for Furnace AA analysis is out of control limits (85% - 115%), while sample absorbance is less than 50% of spike absorbance.
X	This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported and flagged with an X.
Y	This flag applies to pesticide results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag.
P	Samples analyzed by ICP
PM	Samples analyzed by ICP_MS
CV	Samples analyzed by Manual Cold Vapor AA
CA	Samples analyzed by Midi-Distillation Spectrophotometer
SP	Samples analyzed by Spectrophotometer
TR	Samples analyzed by Infrared (TRPH)
AA	Samples analyzed by Flame, Atomic Absorption
M	Method Qualifier: Indicates the method by which each analyte is analyzed.
Q	Data Qualifier: Indicates any anomalies occurred during the QC sample analysis.
C	Concentration Qualifier: Indicates any effect on the reported value.
DLR	The DLR takes into account the dilution or concentration of the sample and is numerically defined as the MDL times the dilution or concentration factor. The dilution and concentration factors vary according to aliquot normally taken by the individual laboratory.
NC	Not calculated; at or near detection limit.



A P C L

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

Please Print in pen

Page 2 of 2

Client: 1 SOTA ENVIR. TECH. INC.	Contact: Mike Sayre	Tel #: 858-485-8100	Box #: 858-485-0812
Address: 1635 W. BERKARD DR. #712	City: San Diego	State: CA	Zip code: 92127
Bill to: SOTA	Analysis	Id	

Project Name/Code

25

Job # 0042019 P.O. #

Project Address	PASADENA, CALIFORNIA	APCL Quotation #
-----------------	----------------------	------------------

APCL Quotation #

Due Date: ☐ regular ☐ rush: ___ days ___ hours Sampled by: WGS/W.F.

Field Sample ID No.	Sample Description	Date Time Collected	Sample Matrix	Preservation	# of Containers	Remarks
MW-18-3D	MW-18-3 DUT	4/1/02 1240	WATER	—	1	
MW-18-2	MW-18-2	1440		HC	3	
				HNO ₃	2	
				—	1	

QC Requirement:

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

Sample Disposal:

Sample Disposal: ☐ Return ☐ Disposal by APCL ☐ Hold for _____ days after receiving date.

If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions:

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

Relinquished by

Date/Time 1/14/02 11743 Received by Richard Linares Date/Time 11-11-02 15113

Relinquished

Date/Time	Received by	Date/Time
11/11/93	11/11/93	11/11/93

[illegible]

Note:

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



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

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

Please Print in pen

Page 1 of 2

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAYRE

Contact: Mike Sayre

Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO

City: SAN DIEGO

State: CA Zip code: 92427

Bill to: SOTA

Bill to: SOTA
Project Name/Code SPL
Job # 004W019 P.O. #

Project Address	APCL Quotation #
PASADENA, CALIFORNIA	

Due Date: ☐ regular ☐ rush: ___ days ___ hours
Sampled by: MES/JNT

Field Sample ID No.	Sample Description	Date Collected	Sample Matrix	Preservation	# of Containers	Vols	Total 12	As (22)	Mb, KCo	Mn, Fe, Cu, Pb, Zn, Cd, Ni, Cr, Hg, Se, Mo, B, I, Br, F, Cl, S, P, K, Na, Li, Rb, Cs, Ba, Sr, Ca, Mg, Al, Si, Ti, Zr, Hf, Nb, Ta, Sn, Pb, Bi, Po, At, Rn, Fr, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr	Remarks
TB-5	TRIP BLANK	1/5/02 1000	WATER	HCl	2	X					
MW-19-5	MW-19-5	1042		HCl	3	X					
				H ₂ O ₂	2	X					
				-	1	X					
MW-19-4	MW-19-4	1133		HCl	3	X					
				H ₂ O ₂	2	X					
				-	1	X					
MW-19-3	MW-19-3	1237		HCl	9	X					
				H ₂ O ₂	2	X					
				-	2	X					
MW-19-3D	MW-19-3 DUP			HCl	3	X					
				H ₂ O ₂	2	X					
				-	1	X					
ER-5	EQUIP. RINSEATE	1206		HCl	3	X					
ER-5	EQUIP. RINSEATE	1206		H ₂ O ₂	2	X					

1224

MS/MSD ON
 ALL EXCEPT
 200.7, 300.0, 310.1,
 160.1, 8 150.1

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

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

Sample Conditions: ☐ Intact; ☒ Broken. Cooler Seal: ☐ Intact; ☐ Broken; Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C).

Relinquished	by _____	Date/Time 1/5/02 / 1645	Received	by <u>Hellewell</u>	Date/Time 1/5/02 / 1645
--------------	----------	----------------------------	----------	---------------------	----------------------------

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

APCL USE ONLY Service #

Note:

APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Client: SOTA ENVIR. TECH., INC.

Contact: Mike Sayre

Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. #212

City: SAN DIEGO

State: CA Zip code: 92127

Bill to: **SOTA**

Project Name/Code	JPL

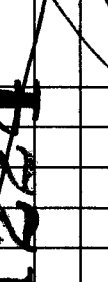
Job # DOH2019 P.O. #

Project Address	PASADENA, CALIFORNIA	APCL Quotation #
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Due Date: ☐ regular ☐ rush: ___ days ___ hours Sampled by: NES/ST

Field Sample ID No.	Sample Description	Date Time Collected	Sample Matrix	Preservation	# of Containers	NOC	Total (200)	As (22)	Mn, V, Cr	Nitrate (20)	Chloride	Sulfate	Fe	Cr VI	Perchlorate	TDS	pH	Remarks
ER-5	EQUIP. RINSE WATER	1/5/02 1206	WATER	-	1													
MW-19-2	MW-19-2	1407		HCl	3	X	X	X	X	X	X	X	X	X	X	X	X	
				HNO ₃	2		X	X	X	X	X	X	X	X	X	X	X	
				-	1		X	X	X	X	X	X	X	X	X	X	X	
MW-19-1	MW-19-1	1533		HCl	3	X	X	X	X	X	X	X	X	X	X	X	X	
				HNO ₃	2		X	X	X	X	X	X	X	X	X	X	X	
				-	1		X	X	X	X	X	X	X	X	X	X	X	

1224



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

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

Sample Conditions: ☐ Intact; ☒ Broken.

Cooler Seal: ☐ Intact; ☐ Broken; ☐ None.

Tag # _____

Temperature: ☐ Room ☐ Cold (____ °C).

	Relinquished	by	Date/Time	Received	by	Date/Time
			1/15/02	1645		1/15/02
			1/15/02	1645		1/15/02

Relinquished	by	Date/Time	Received	by	Date/Time

APCL USE ONLY

Service #

Note:

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Applied P & Ch Laboratory

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

Chain of Custody

Please Print in pen Page 1 of 2

Client: SOTA ENVIRONMENTAL, INC. Contact: Mike Sayre Tel #: 858-485-8100 Fax #: 858-485-0812
Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO State: CA Zip code: 92127
Bill to: SOTA

Project Name/Code: JRL Job # DOHWD19 P.O. #
Project Address: PASADENA, CALIFORNIA APCL Quotation #
Due Date: ☐ Regular ☐ Rush: days hours Sampled by: MES/JNT

Field Sample ID No.	Sample Description	Date Collected	Sample Matrix	Preservation	# of Containers	Analysis Items	Remarks
TB-6	TRIP BLANK	1/16/02	Water	HCl	2	NOCS (524.2) As (200.9) Mn (200.8) Total Cr (4.7)	
MW-20-5	MW-20-5	1009		HCl	3		
				HNO ₃	2		
				-	1		
MW-20-4	MW-20-4	1112		HCl	3		
				HNO ₃	2		
				-	1		
ER-6	EQUIP. RINSEATE	1130		HCl	3		
				HNO ₃	2		
				-	1		
MW-20-3	MW-20-3	1209		HCl	3		
				HNO ₃	2		
				-	1		
MW-20-2	MW-20-2	1448		HCl	3		
MW-20-2	MW-20-2	1448		HNO ₃	2		

1224

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ☐ (E, Cor D); ☐ Other ☐ (Please specify)
Sample Disposal: ☐ Return ☐ Disposal by APCL ☐ Hold for days after receiving date. If not specified, samples will be discarded 45 days after samples are received.
Sample Conditions: ☐ Intact; ☐ Broken. Cooler Seal: ☐ Intact; ☐ Broken; ☐ None. Tag # Temperature: ☐ Room ☐ Cold (°C).

Relinquished by [Signature] Date/Time 1/16/02 11:45 Received by [Signature] Date/Time 1-16-02 1645
Relinquished by Date/Time Received by Date/Time

APCL USE ONLY Service # Note:

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



Applied P & Ch Laboratory

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

APCL

Chain of Custody

Please Print in pen Page 2 of 2

Client: SOTA ENVIR. TECH., INC. Contact: MUVE SAYRE Tel # 858-485-8100 Fax # 858-485-0812
Address: 16835 W. BERNARD DR. #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SOTA
Project Name/Code: JPL Job # 008W019 P.O. #
Project Address: PASADENA, CA APCL Quotation #
Due Date: ☐ regular ☐ rush: ___ days ___ hours Sampled by: MES / JST

Field Sample ID No.	Sample Description	Date Collected	Sample Matrix	Preservation	# of Containers	Analysis Items	White - With report Yellow - Lab copy Pink - Originator
MW-21-1	MW-21-1	1/9/02 1437	WATER	—	1	As (200.9) pH (150.1) TDS (160.1) PERM. OSM. (14.0) Ca (71.6) Mg (30.0) Na+K (200.8) NH4 (52.4.2) NO3 (200.7) NO2 (200.7) Cu (200.7) Fe (200.7) Mn (200.7) Zn (200.7) Pb (200.7) Cd (200.7) Co (200.7) Cr (200.7) Molyb (200.7) Ni (200.7) Se (200.7) V (200.7) W (200.7) As (200.9) Ba (200.9) Be (200.9) Bi (200.9) Br (200.9) B (200.9) Ca (200.9) Ce (200.9) Cl (200.9) Co (200.9) Cr (200.9) Cu (200.9) Fe (200.9) F (200.9) Ga (200.9) Ge (200.9) H (200.9) He (200.9) Hf (200.9) Hg (200.9) I (200.9) In (200.9) Ir (200.9) K (200.9) La (200.9) Li (200.9) Lu (200.9) M (200.9) Mg (200.9) Mn (200.9) Mo (200.9) Na (200.9) Nb (200.9) Ni (200.9) N (200.9) O (200.9) Os (200.9) P (200.9) Pb (200.9) Pd (200.9) Pm (200.9) Pt (200.9) Rb (200.9) Re (200.9) Rh (200.9) Ru (200.9) S (200.9) Sb (200.9) Sc (200.9) Se (200.9) Si (200.9) Sn (200.9) Sr (200.9) Te (200.9) Th (200.9) Ti (200.9) Tl (200.9) Tm (200.9) Tn (200.9) U (200.9) V (200.9) W (200.9) Xe (200.9) Y (200.9) Yb (200.9) Zn (200.9) Zr (200.9)	As ONLY BY 200.9 NO 200.7
ER-1	EQUIP. RINSE	1215	—	HCl	3		
ER-1	—	—	—	HNO3	2		
ER-1	—	—	—	—	1		
SB-1	SOURCE BLANK	1155	—	HCl	2		

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

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

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

Relinquished by [Signature] Date/Time 1/9/02 1634 Received by Richard [Signature] Date/Time 1-9-02 1634
Relinquished by [Signature] Date/Time / Received by [Signature] Date/Time /

APCL USE ONLY Service #
Note:
Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.
APCL Form 4-101, Ver. 4.0, Dec. 20, 1994.



Applied P & Ch Laboratory

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

Chain of Custody

Please Print in pen Page 2 of 2

Client: SOTA ENVIR. TECH., INC. Contact: Mike Sayre

Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. Bernardo Dr. #212 City: San Diego

State: CA Zip code: 92127

Bill to: SOTA

Project Name/Code: JPL Job # 0040019 P.O. #

Project Address: PASADENA, CALIFORNIA APCL Quotation #

Due Date: regular ☐ rush: ☐ days hours Sampled by: MES/JNT

Field Sample ID No.	Sample Description	Date Time Collected	Sample Matrix	Preservation	# of Containers	Analysis Items	White - With report Yellow - Lab copy Pink - Originator Remarks
MW-17-1	MW-17-1	1/10/02 1555	WATER	---	1	NDMA (1625C) PH (150.1) TDS (100.1) PERCHLORATE (314.0) Cr VI (719.6) ARSENITE (310.1) CHLORIDE (500.0) NITRATE (500.0) NITRILE (200.7) NITROGEN (200.7) As (200.7) Pb (200.8) VOCs (524.2)	
ER-2	EQUIP. RINSE	1425		HCl	3		
				H2O2	2		
				---	1		
MW-17-3	MW-17-3	1147		1	2		

1222

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

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

Sample Conditions: ☐ Intact; ☐ Broken. Cooler Seal: ☐ Intact; ☐ Broken; ☐ None. Tag #

Temperature: ☐ Room ☐ Cold (___ °C).

Relinquished by *[Signature]* Date/Time 1/10/02 1656 Received by *[Signature]* Date/Time 01-10-02 1656

Relinquished by *[Signature]* Date/Time / Received by *[Signature]* Date/Time /

APCL USE ONLY Service #

Note:

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

APCL Form 4-101, Ver. 4.0, Dec. 20, 1994.

Root-File: [CUST-DATA-LAB]CHAIN-ROOT.TEX File: [CUST-DATA-LAB]CHAIN4.TEX



Applied P & Ch Laboratory

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

Chain of Custody

Please Print in pen Page 1 of 2

Client: SOTA ENVIR. TECH., INC. Contact: Mike Sayce Tel #: 858-485-8100 Fax #: 858-485-0812
Address: 16835 W. BERNARD DR. #212 City: SAN DIEGO State: CA Zip code: 92127
Bill to: SOTA

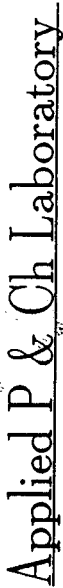
Project Name/Code JRL Job # 0044019 P.O. #
Project Address PASADENA, CALIFORNIA APCL Quotation #
Due Date: ☐ regular ☐ rush: days hours Sampled by: MES/SMT

Field Sample ID No.	Sample Description	Date Collected	Sample Matrix	Preservation	# of Containers	Analysis Items										Remarks
TB-3	TRAP BLANK	1/14/02	WATER	HCL	2	VOCs (52+2)	1,2-Dichloroethane (200.8)	Acetone (200.7)	Chloroform (200.7)	1,1,1-Trichloroethane (200.7)	1,1,2-Trichloroethane (200.7)	1,2-Dichlorobenzene (200.9)	1,2,4-Trichlorobenzene (200.9)	1,2,4-Trichlorobenzene (200.9)	1,2,4-Trichlorobenzene (200.9)	PH (150.1)
MW-3-5	MW-3-5	915		HCL	3											
				HNO ₃	2											
				—	1											
MW-3-4	MW-3-4	1003		HCL	3											
				HNO ₃	2											
				—	1											
MW-3-3	MW-3-3	1057		HCL	3											
				HNO ₃	2											
				—	1											
ER-3	EQUIP. RINSE	1104		HCL	3											
				HNO ₃	2											
				—	1											
MW-3-2	MW-3-2	1205		HCL	3											
MW-3-2	MW-3-2	1205		HNO ₃	2											

1222

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ☐ (E, C or D); ☐ Other ☐ (Please specify)
Sample Disposal: ☐ Return ☐ Disposal by APCL ☐ Hold for days after receiving date. If not specified, samples will be discarded 45 days after samples are received.
Sample Conditions: ☐ Intact; ☐ Broken. Cooler Seal: ☐ Intact; ☐ Broken. Tag # Temperature: ☐ Room ☐ Cold (°C).
Relinquished by Date/Time 1/11/02 11437 Received by Rahapeh Date/Time 01-11-02 1437
Relinquished Date/Time Received by Date/Time

APCL USE ONLY Service # Note:
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Chain of Custody

APCL

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

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Page 2 of 2

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAYRE

Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO

State: CA Zip code: 92127

501A

Project Name/Code	ΔPCL
1	0.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00
8	0.00
9	0.00
10	0.00
11	0.00
12	0.00
13	0.00
14	0.00
15	0.00
16	0.00
17	0.00
18	0.00
19	0.00
20	0.00
21	0.00
22	0.00
23	0.00
24	0.00
25	0.00
26	0.00
27	0.00
28	0.00
29	0.00
30	0.00
31	0.00
32	0.00
33	0.00
34	0.00
35	0.00
36	0.00
37	0.00
38	0.00
39	0.00
40	0.00
41	0.00
42	0.00
43	0.00
44	0.00
45	0.00
46	0.00
47	0.00
48	0.00
49	0.00
50	0.00
51	0.00
52	0.00
53	0.00
54	0.00
55	0.00
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58	0.00
59	0.00
60	0.00
61	0.00
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63	0.00
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65	0.00
66	0.00
67	0.00
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70	0.00
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72	0.00
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81	0.00
82	0.00
83	0.00
84	0.00
85	0.00
86	0.00
87	0.00
88	0.00
89	0.00
90	0.00
91	0.00
92	0.00
93	0.00
94	0.00
95	0.00
96	0.00
97	0.00
98	0.00
99	0.00
100	0.00

Job #00Hw019 P.O. #

Project Address	PASADENA, CALIFORNIA	APCL Quotation #

Due Date: ☐ regular ☐ rush: ___ days ___ hours
Sampled by: MES/JNT

Field Sample ID No.	Sample Description	Date Time Collected	Sample Matrix	Preservation	# of Containers	VOCs (1200)	As (120)	No, K, C (20)	Mnate (20)	Carbon (20)	Al, K, C (20)	Perfluorinated (20)	TDs (1)	pH (1)	Remarks
WB-1	WB-1				2										
MW-3-2	MW-3-2	1/1/02 1205	WATER	—	1										
MW-3-1	MW-3-1	1306		HCl	3										
				HNO ₃	2										
				—	1										

1222

762

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

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

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

Relinquished by 	Date/Time 1/11/02	Received by 	Date/Time 01-11-03
1437	1437	1437	1437

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

APCL USE ONLY	Service #
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