

**Advanced Technology Laboratories**

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories Client Sample ID MW-12-3  
 Lab Order: 053831  
 Project: JPL Collection Date: 10/23/01 1:45:00 PM  
 Lab ID: 053831-001A Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	6.4	1.0		µg/L	1.0	11/12/01

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



**Advanced Technology Laboratories**

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories

Client Sample ID MW-12-2

Lab Order: 053831

Project: JPL

Collection Date: 10/23/01 3:00:00 PM

Lab ID: 053831-002A

Matrix: Water

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

ICP-MS METALS

EPA 200.8

RunID: ICP4\_011112C

BatchID: 6451

PrepDate: 11/12/01

Analyst: NS

Chromium

7.4

1.0

µg/L

1.0

11/12/01

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: 11/14/01

**CLIENT:** Applied P & Ch Laboratories **Client Sample ID** MW-12-2D  
**Lab Order:** 053831  
**Project:** JPL **Collection Date:** 10/23/01 3:10:00 PM  
**Lab ID:** 053831-003A **Matrix:** Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	6.6	1.0		µg/L	1.0	11/12/01

**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



015

**Advanced Technology Laboratories**

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories

Client Sample ID MW-12-1

Lab Order: 053831

Project: JPL

Collection Date: 10/23/01 3:50:00 PM

Lab ID: 053831-004A

Matrix: Water

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

ICP-MS METALS

EPA 200.8

RunID: ICP4\_011112C

BatchID: 6451

PrepDate: 11/12/01

Analyst: NS

Chromium

6.7

1.0

µg/L

1.0

11/12/01

**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

016<sup>4</sup>

**Advanced Technology Laboratories**

Print Date: 11/14/01

<b>CLIENT:</b> Applied P & Ch Laboratories	<b>Client Sample ID</b> ER-12
<b>Lab Order:</b> 053831	
<b>Project:</b> JPL	<b>Collection Date:</b> 10/23/01 12:35:00 PM
<b>Lab ID:</b> 053831-005A	<b>Matrix:</b> Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	ND	1.0		µg/L	1.0	11/12/01

<b>Qualifiers</b>	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



**Advanced Technology Laboratories**

Print Date: 11/14/01

**CLIENT:** Applied P & Ch Laboratories  
**Lab Order:** 053831  
**Project:** JPL  
**Lab ID:** 053831-006A

**Client Sample ID** MW-23-4  
**Collection Date:** 10/24/01 12:15:00 PM  
**Matrix:** Water

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

**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4\_011112C

BatchID: 6451

PrepDate: 11/12/01

Analyst: NS

Chromium

5.9

1.0

µg/L

1.0

11/12/01

**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

Initials: RA

DO - Surrogate Diluted Out

M - Not Monitored. Highly Reactive



**Advanced Technology Laboratories**

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories      Client Sample ID MW-23-3  
Lab Order: 053831  
Project: JPL      Collection Date: 10/24/01 1:10:00 PM  
Lab ID: 053831-007A      Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP-MS METALS		EPA 200.8				
RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	5.8	1.0		µg/L	1.0	11/12/01

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      Initials: RA  
                  DO - Surrogate Diluted Out      M - Not Monitored. Highly Reactive



**Advanced Technology Laboratories**

Print Date: 11/14/01

**CLIENT:** Applied P & Ch Laboratories

**Client Sample ID** MW-23-2

**Lab Order:** 053831

**Project:** JPL

**Collection Date:** 10/24/01 2:30:00 PM

**Lab ID:** 053831-008A

**Matrix:** Water

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

**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4\_011112C

BatchID: 6451

PrepDate: 11/12/01

Analyst: NS

Chromium

7.4

1.0

µg/L

1.0

11/12/01

**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: 11/14/01

<b>CLIENT:</b> Applied P & Ch Laboratories	<b>Client Sample ID</b> MW-23-2D
<b>Lab Order:</b> 053831	
<b>Project:</b> JPL	<b>Collection Date:</b> 10/24/01 3:00:00 PM
<b>Lab ID:</b> 053831-009A	<b>Matrix:</b> Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	6.3	1.0		µg/L	1.0	11/12/01

<b>Qualifiers</b>	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



**Advanced Technology Laboratories**

Print Date: 11/14/01

**CLIENT:** Applied P & Ch Laboratories

**Client Sample ID** MW-23-1

**Lab Order:** 053831

**Project:** JPL

**Collection Date:** 10/24/01 3:30:00 PM

**Lab ID:** 053831-010A

**Matrix:** Water

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

**ICP-MS METALS**

RunID: ICP4\_011112C

BatchID: 6451

**EPA 200.8**

PrepDate: 11/12/01

Analyst: NS

Chromium

6.7

1.0

µg/L

1.0

11/12/01

**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

10



# Advanced Technology Laboratories

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories      Client Sample ID ER-23  
Lab Order: 053831  
Project: JPL      Collection Date: 10/24/01 11:00:00 AM  
Lab ID: 053831-011A      Matrix: Water

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

### ICP-MS METALS

### EPA 200.8

RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	ND	1.0		µg/L	1.0	11/12/01

**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      Initials: RA  
                         DO - Surrogate Diluted Out      M - Not Monitored. Highly Reactive      11



Advanced Technology  
Laboratories

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

**Advanced Technology Laboratories**

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories

Client Sample ID MW-11-3

Lab Order: 053831

Project: JPL

Collection Date: 10/25/01 12:50:00 PM

Lab ID: 053831-012A

Matrix: Water

---

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

---

ICP-MS METALS

EPA 200.8

RunID: ICP4\_011112C

BatchID: 6451

PrepDate: 11/12/01

Analyst: NS

Chromium

4.1

1.0

µg/L

1.0

11/12/01

---

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

12  
024

# Advanced Technology Laboratories

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories

Client Sample ID MW-11-2

Lab Order: 053831

Project: JPL

Collection Date: 10/25/01 2:00:00 PM

Lab ID: 053831-013A

Matrix: Water

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

**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4\_011112C

BatchID: 6451

PrepDate: 11/12/01

Analyst: NS

Chromium

3.5

1.0

µg/L

1.0

11/12/01

**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

Initials: RA

DO - Surrogate Diluted Out

M - Not Monitored. Highly Reactive

13



**Advanced Technology Laboratories**

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories Client Sample ID MW-11-1  
 Lab Order: 053831  
 Project: JPL Collection Date: 10/25/01 2:35:00 PM  
 Lab ID: 053831-014A Matrix: Water

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

<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	3.5	1.0		µg/L	1.0	11/12/01

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

14



**Advanced Technology Laboratories**

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories      Client Sample ID ER-11  
Lab Order: 053831  
Project: JPL      Collection Date: 10/25/01 12:20:00 PM  
Lab ID: 053831-015A      Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	ND	1.0		µg/L	1.0	11/12/01

**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      Initials: RA  
                  DO - Surrogate Diluted Out      M - Not Monitored. Highly Reactive



*Advanced Technology  
Laboratories*

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

027<sup>15</sup>

# Advanced Technology Laboratories

Print Date: 11/14/01

<b>CLIENT:</b> Applied P & Ch Laboratories	<b>Client Sample ID</b> MW-24-4
<b>Lab Order:</b> 053831	
<b>Project:</b> JPL	<b>Collection Date:</b> 10/26/01 10:20:00 AM
<b>Lab ID:</b> 053831-016A	<b>Matrix:</b> Water

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

<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	5.2	1.0		µg/L	1.0	11/12/01

<b>Qualifiers</b>	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: PA

16



Advanced Technology  
Laboratories

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



# Advanced Technology Laboratories

Print Date: 11/14/01

<b>CLIENT:</b> Applied P & Ch Laboratories	<b>Client Sample ID</b> MW-24-3
<b>Lab Order:</b> 053831	
<b>Project:</b> JPL	<b>Collection Date:</b> 10/26/01 10:50:00 AM
<b>Lab ID:</b> 053831-017A	<b>Matrix:</b> Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	6.9	1.0		µg/L	1.0	11/12/01

<b>Qualifiers</b>	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

029<sup>17</sup>



# Advanced Technology Laboratories

Print Date: 11/14/01

**CLIENT:** Applied P & Ch Laboratories

**Client Sample ID** MW-24-2

**Lab Order:** 053831

**Project:** JPL

**Collection Date:** 10/26/01 11:15:00 AM

**Lab ID:** 053831-018A

**Matrix:** Water

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

**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4\_011112C

BatchID: 6451

PrepDate: 11/12/01

Analyst: NS

Chromium

4.7

1.0

µg/L

1.0

11/12/01

**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

Initials: RA

DO - Surrogate Diluted Out

M - Not Monitored. Highly Reactive



Advanced Technology  
Laboratories

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

030<sup>18</sup>

# Advanced Technology Laboratories

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories      Client Sample ID MW-24-1  
Lab Order: 053831  
Project: JPL      Collection Date: 10/26/01 11:40:00 AM  
Lab ID: 053831-019A      Matrix: Water

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

<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	5.7	1.0		µg/L	1.0	11/12/01

**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      Initials: RA  
DO - Surrogate Diluted Out      M - Not Monitored. Highly Reactive      031



Advanced Technology  
Laboratories

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

**Advanced Technology Laboratories**

Print Date: 11/14/01

**CLIENT:** Applied P & Ch Laboratories

**Client Sample ID** ER-24

**Lab Order:** 053831

**Project:** JPL

**Collection Date:** 10/26/01 10:35:00 AM

**Lab ID:** 053831-020A

**Matrix:** Water

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

**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4\_011112D

BatchID: 6452

PrepDate: 11/12/01

Analyst: NS

Chromium

ND

1.0

µg/L

1.0

11/12/01

**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

**Initials:** RA

DO - Surrogate Diluted Out

M - Not Monitored. Highly Reactive

20



*Advanced Technology  
Laboratories*

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

# Advanced Technology Laboratories

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories      Client Sample ID MW-13  
Lab Order: 053831  
Project: JPL      Collection Date: 10/29/01 10:55:00 AM  
Lab ID: 053831-021A      Matrix: Water

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

ICP-MS METALS		EPA 200.8				
RunID: ICP4_011112C	BatchID: 6451			PrepDate: 11/12/01		Analyst: NS
Chromium	33	2.0		µg/L	2.0	11/12/01

**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      Initials: RA  
                  DO - Surrogate Diluted Out      M - Not Monitored. Highly Reactive



Advanced Technology  
Laboratories

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

033

# Advanced Technology Laboratories

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories  
 Lab Order: 053831  
 Project: JPL  
 Lab ID: 053831-022A

Client Sample ID MW-10  
 Collection Date: 10/29/01 2:15:00 PM  
 Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112D	BatchID: 6452			PrepDate: 11/12/01		Analyst: NS
Chromium	13	1.0		µg/L	1.0	11/12/01

**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

22



**Advanced Technology Laboratories**

Print Date: 11/14/01

**CLIENT:** Applied P & Ch Laboratories  
**Lab Order:** 053831  
**Project:** JPL  
**Lab ID:** 053831-023A

**Client Sample ID** MW-10-D  
**Collection Date:** 10/29/01 2:15:00 PM  
**Matrix:** Water

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

**ICP-MS METALS**

RunID: ICP4\_011112D

BatchID: 6452

**EPA 200.8**

PrepDate: 11/12/01

Analyst: NS

Chromium

10

1.0

µg/L

1.0

11/12/01

**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

23



*Advanced Technology  
 Laboratories*

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

035

**Advanced Technology Laboratories**

Print Date: 11/14/01

**CLIENT:** Applied P & Ch Laboratories

**Client Sample ID** MW-16

**Lab Order:** 053831

**Project:** JPL

**Collection Date:** 10/29/01 3:20:00 PM

**Lab ID:** 053831-024A

**Matrix:** Water

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

**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4\_011112D

BatchID: 6452

PrepDate: 11/12/01

Analyst: NS

Chromium

140

10

µg/L

10

11/12/01

**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

036<sup>24</sup>



**Advanced Technology Laboratories**

Print Date: 11/14/01

<b>CLIENT:</b> Applied P & Ch Laboratories	<b>Client Sample ID</b> MW-8
<b>Lab Order:</b> 053831	
<b>Project:</b> JPL	<b>Collection Date:</b> 10/30/01 11:30:00 AM
<b>Lab ID:</b> 053831-025A	<b>Matrix:</b> Water

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

<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112B	BatchID: 6450			PrepDate: 11/12/01		Analyst: NS
Chromium	4.7	1.0		µg/L	1.0	11/12/01

<b>Qualifiers</b>	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



*Advanced Technology  
Laboratories*

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

037<sup>25</sup>

# Advanced Technology Laboratories

Print Date: 11/14/01

**CLIENT:** Applied P & Ch Laboratories **Client Sample ID** MW-5  
**Lab Order:** 053831  
**Project:** JPL **Collection Date:** 10/30/01 2:30:00 PM  
**Lab ID:** 053831-026A **Matrix:** Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed	
<b>ICP-MS METALS</b>		<b>EPA 200.8</b>					
RunID: ICP4_011112D	BatchID: 6452			PrepDate: 11/12/01		Analyst: NS	
Chromium	7.4	1.0		µg/L	1.0	11/12/01	

**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



Advanced Technology  
Laboratories

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

26  
038

**Advanced Technology Laboratories**

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories      Client Sample ID MW-5-D  
Lab Order: 053831  
Project: JPL      Collection Date: 10/30/01 2:30:00 PM  
Lab ID: 053831-027A      Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112D	BatchID: 6452			PrepDate: 11/12/01		Analyst: NS
Chromium	6.5	1.0		µg/L	1.0	11/12/01

**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      Initials: RA  
                  DO - Surrogate Diluted Out      M - Not Monitored. Highly Reactive



Advanced Technology  
Laboratories

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

27  
039

**Advanced Technology Laboratories**

Print Date: 11/14/01

CLIENT: Applied P & Ch Laboratories  
 Lab Order: 053831  
 Project: JPL  
 Lab ID: 053831-028A

Client Sample ID MW-6  
 Collection Date: 10/30/01 4:00:00 PM  
 Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112D	BatchID: 6452			PrepDate: 11/12/01		Analyst: NS
Chromium	34	4.0		µg/L	4.0	11/12/01

**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



**Advanced Technology Laboratories**

Print Date: 11/14/01

**CLIENT:** Applied P & Ch Laboratories **Client Sample ID** MW-6-D  
**Lab Order:** 053831  
**Project:** JPL **Collection Date:** 10/30/01 4:00:00 PM  
**Lab ID:** 053831-029A **Matrix:** Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP-MS METALS</b>		<b>EPA 200.8</b>				
RunID: ICP4_011112D	BatchID: 6452			PrepDate: 11/12/01		Analyst: NS
Chromium	32	4.0		µg/L	4.0	11/12/01

**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: PA



Client: Applied P & Ch Laboratory  
 Attn: Jim Lin  
 Client's Project: JPL  
 ATL Number: 053831-001A / 029A  
 Date Received: 11/07/01

**(EPA 200.8) - INITIAL CALIBRATION**

Instrument ID: ICP4  
 Date(s) Analyzed: 11/12/01

Initial Calibration: **Source:**  
Leeman (Lot 435401 and 435402)

COMPOUND	INTENSITY				r2
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	
Chromium	8810	27220	50148	96115	0.9999

Standard Concentration:	1 ppm	5 ppb	10 ppb	20 ppb
Standard ID:	MST011112F	MST011112E	MST011112D	MST011112C

Calibration Acceptance Criteria: > 0.995 Correlation



Client: Applied P & Ch Laboratory  
 Attn: Jim Lin  
 Client's Project: JPL  
 ATL Number: 053830-001A / 033A  
 Date Received: 11/07/01

**(EPA 200.8) INITIAL AND CONTINUING CALIBRATION VERIFICATION**  
 (EXTERNAL REFERENCE STANDARD)

Instrument ID: ICP4

Date Analyzed: 11/12/01

Initial Calibration Verification: **Source:** CPI (1FF002) **Standard Code:** MST011112H  
 Continuing Calibration Verification: CPI(1FF02) MST011112H

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
					<b>CCV1</b>		<b>CCV2</b>		
Chromium	10.0	10.2	102	10.0	10.3	103	10.4	104	PM

ICV Limits: 90 -110%  
 CCV Limits: 85 -115%