Bonner Analytical Testing Company

SAMPLE RECEIPT FORM

11608

Client: CLP Date: 9-26-05

Sample Type: Grab Composite SDG#: Case#: 341642

Matrix: SW (stormwater) GW (groundwater) WW (wastewater) DW (drinkingwater) SL (sludge)

SO (soil) AS (asbestos) PE (petroleum) other WATER

1) Does this project fall under NPDES, RCRA, CLP, Litigation or other EPA guidelines?	NA	YES	NO
2) Did Cooler come with airbill/sticker? Circle carrier: UPS, FedEx, other: _____ If YES, enter airbill number here: 8526 3929 6726	NA	YES	NO
3) Are custody seals intact? Custody Seal#: N/A Custody Seal#: N/A	NA	YES	NO
4) Are all bottles sealed in separate plastic bags?	NA	YES	NO
5) Are samples requiring no headspace, headspace free?	NA	YES	NO
6) Packing Material: Bubblewrap, peanuts, vermiculite, ice, other: _____		YES	NO
7) Are chains of custody filled out properly? (ink, signed, dates, etc.)		YES	NO
8) Are all bottle labels complete and agree with COC? (ID, time, date, preservation)		YES	NO
9) Were all bottles received intact?		YES	NO
10) Were correct containers used for the tests indicated? Who's: BATCO/Client		YES	NO
11) Was a sufficient aliquot of sample sent for tests indicated?		YES	NO
12) Are samples within holding times for requested analysis?		YES	NO
13) Sample Preservation?			
A) If samples were collected within 6 hours of receipt, has chilling begun?	NA	YES	NO
B) If samples were received beyond 6 hours of collection:			
1) Is there a temperature blank?	NA	YES	NO
2) Temperature 3.1°C			
C) Were correct preservatives added to sample/s?	NA	YES	NO

14) Describe "NO" items for the above if # 1) response is NA or YES

13 Bl. NO temp blank.

15) Is there a Corrective Action and/or Client Contact form attached? YES NO

Signature: Belinda Graham

Bonner Analytical Testing Company

SAMPLE RECEIPT FORM

11609

Client: CLP Date: 9-26-05

Sample Type: Grab Composite SDG#: Case#: 34642

Matrix: SW (stormwater) GW (groundwater) WW (wastewater) DW (drinkingwater) SL (sludge)

SO (soil) AS (asbestos) PE (petroleum) other WATER

1) Does this project fall under NPDES, RCRA, CLP, Litigation or other EPA guidelines?	NA	YES	NO
2) Did Cooler come with airbill/sticker? Circle carrier: UPS, FedEx, other: _____ If YES, enter airbill number here: 8525 3929 67216	NA	YES	NO
3) Are custody seals intact? Custody Seal#: N/A Custody Seal#: N/A	NA	YES	NO
4) Are all bottles sealed in separate plastic bags?	NA	YES	NO
5) Are samples requiring no headspace, headspace free?	NA	YES	NO
6) Packing Material: Bubblewrap, peanuts, vermiculite, ice, other: _____		YES	NO
7) Are chains of custody filled out properly? (ink, signed, dates, etc.)		YES	NO
8) Are all bottle labels complete and agree with COC? (ID, time, date, preservation)		YES	NO
9) Were all bottles received intact?		YES	NO
10) Were correct containers used for the tests indicated? Who's: BATCO/Client		YES	NO
11) Was a sufficient aliquot of sample sent for tests indicated?		YES	NO
12) Are samples within holding times for requested analysis?		YES	NO
13) Sample Preservation?			
A) If samples were collected within 6 hours of receipt, has chilling begun?	NA	YES	NO
B) If samples were received beyond 6 hours of collection:			
1) Is there a temperature blank?	NA	YES	NO
2) Temperature 5°C			
C) Were correct preservatives added to sample/s?	NA	YES	NO

14) Describe "NO" items for the above if # 1) response is NA or YES

13B1. No temp blank present.

15) Is there a Corrective Action and/or Client Contact form attached? YES NO

Signature: Belinda Anahane

Bonner Analytical Testing Company

SAMPLE RECEIPT FORM

11610

Client: CLP Date: 9-26-05

Sample Type: Grab Composite SDG#: Case#: 34642

Matrix: SW (stormwater) GW (groundwater) WW (wastewater) DW (drinkingwater) SL (sludge)

SO (soil) AS (asbestos) PE (petroleum) other WATER

1) Does this project fall under NPDES, RCRA, CLP, Litigation or other EPA guidelines?	NA	YES	NO
2) Did Cooler come with airbill/sticker? Circle carrier: UPS, FedEx, other: _____ If YES, enter airbill number here: 8525 3929 6726	NA	YES	NO
3) Are custody seals intact? Custody Seal#: N/A Custody Seal#: N/A	NA	YES	NO
4) Are all bottles sealed in separate plastic bags?	NA	YES	NO
5) Are samples requiring no headspace, headspace free?	NA	YES	NO
6) Packing Material: Bubblewrap, peanuts, vermiculite, ice, other: _____		YES	NO
7) Are chains of custody filled out properly? (ink, signed, dates, etc.)		YES	NO
8) Are all bottle labels complete and agree with COC? (ID, time, date, preservation)		YES	NO
9) Were all bottles received intact?		YES	NO
10) Were correct containers used for the tests indicated? Who's: BATCO/Client		YES	NO
11) Was a sufficient aliquot of sample sent for tests indicated?		YES	NO
12) Are samples within holding times for requested analysis?		YES	NO
13) Sample Preservation?			
A) If samples were collected within 6 hours of receipt, has chilling begun?	NA	YES	NO
B) If samples were received beyond 6 hours of collection:			
1) Is there a temperature blank?	NA	YES	NO
2) Temperature 7.7°C			
C) Were correct preservatives added to sample/s?	NA	YES	NO

14) Describe "NO" items for the above if # 1) response is NA or YES

13B.1. No temp blank present in shipment.
13B2. Not received at 4°C +/- 2°C.

15) Is there a Corrective Action and/or Client Contact form attached? YES NO

Signature: Belinda Shahane

Bonner Analytical Testing Company

Inhouse Chain of Custody

SDG Num: MH1FZ6

Type: Water

	LabID	EPA Sample Number	Sample Description
1	BT23711	MH1FZ4	
2	BT23712	MH1FZ6	
3	BT23712D	MH1FZ6D	
4	BT23712S	MH1FZ6S	
5	BT23713	MH1FZ8	
6	BT23714	MH1G00	
7	BT23715	MH1G02	
8	BT23716	MH1G04	
9	BT23717	MH1G06	
10	BT23718	MH1G08	
11	BT23719	MH1G10	
12	BT23720	MH1G12	
13	BT23721	MH1G14	
14	BT23722	MH1G16	
15	BT23723	MH1G18	
16	BT23724	MH1G20	
17	BT23725	MH1G22	
18	BT23726	MH1G24	
19	BT23727	MH1G26	
20	BT23728	MH1G28	
21	BT23729	MH1G30	
22	BT23730	MH1G32	
23			
24			
25			
26			
27			
28			
30			

Name	Signature	Date/Time	Purpose
Belinda Grahame	Belinda Grahame	9.27.05 9.00	Storage
James Adair		9.27.05 1100	M
James Adair		9.27.05 11:25	Storage

M = Metals HG = Mercury CN = Cynanide TS = Total Solids D = Dispo

Bonner Analytical Testing Company

Inhouse Chain of Custody

for Digested Sampl

SDG Num: MH1FZ6

Type: Water

	LabID	EPA Sample Number	Sample Description
1	BT23711	MH1FZ4	
2	BT23712	MH1FZ6	
3	BT23712D	MH1FZ6D	
4	BT23712S	MH1FZ6S	
5	BT23713	MH1FZ8	
6	BT23714	MH1G00	
7	BT23715	MH1G02	
8	BT23716	MH1G04	
9	BT23717	MH1G06	
10	BT23718	MH1G08	
11	BT23719	MH1G10	
12	BT23720	MH1G12	
13	BT23721	MH1G14	
14	BT23722	MH1G16	
15	BT23723	MH1G18	
16	BT23724	MH1G20	
17	BT23725	MH1G22	
18	BT23726	MH1G24	
19	BT23727	MH1G26	
20	BT23728	MH1G28	
21	BT23729	MH1G30	
22	BT23730	MH1G32	
23			
24			
25			
26			
27			
28			
30			

Name	Signature	Date/Time	Purpose
James Adair		9-27-05 11:00	pour
James Adair		9-27-05 11:05	storage
James Adair		9-28-05 0530	digest
James Adair		9-28-05 1445	storage
Jonathan Woodall		9/28/05 1520	A
Jonathan Woodall		9/28/05 1700	S
Jonathan Woodall		9/29/05 930	A
Jonathan Woodall		9/29/05 1700	S

S =Storage A = Analyze D = Disposal

REAGENT AND STANDARD LOG (CLP)

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for 9/29/05 ICP 01/02 Daily Analysis

Description	EPA ID	Amount Spiked	Volume Made	Manufacturer	Lot#	Date Lot Expires
Initial Calibration High	S3	NA	50 mL	Inorganic Ventures	NA	48 hours
CLPP-Cal 1		0.4 mL	Composite	Inorganic Ventures	W-MEB156073	Jan-06
CLPP-Cal 2		0.2 mL		Inorganic Ventures	W-SB02080	Jan-06
CLPP-Cal 3		0.2 mL		Inorganic Ventures	X-CICP15095	Jan-06
BONNER-CAL-1		0.2 mL		Inorganic Ventures	Y-MEB186022	Mar-06
Initial Calibration Mid	S2	5.0 mL	50 mL	Inorganic Ventures	From S3	48 hours
Initial Calibration Low	S1	2.5 mL	50 mL	Inorganic Ventures	From S2	48 hours
Initial Calibration Blank	S0	NA	50 mL	In-house	BA-092005BAW-1	48 hours
Initial Calibration Verification	ICV	NA	50 mL	Inorganic Ventures	NA	48 hours
ICV-1		5.0mL	Comp	EPA REF MATERIAL	1201	NA
Initial Calibration Blank	ICB	NA	50 mL	In-house	BA-092005BAW-1	48 hours
Contract Required Quant. Limit	CRI	0.5 mL	50 mL	Inorganic Ventures	X-MEB167135	Dec-05
Interelement Check Standard A	ICSA	25 mL	250 mL	EPA REF Material	503	1 wk
Interelement Check Standard AB	ICSAB	NA	250 mL	EPA REF Material	NA	1 wk
ICS PART A		25 mL	Comp	EPA REF MATERIAL	503	NA
ICS PART B		25 mL		EPA REF MATERIAL	203	NA
Continuing Calibration Verification	CCV	NA	50 mL	Inorganic Ventures	NA	48 hours
CLPP-Cal-1		0.2 mL	Composite	Inorganic Ventures	W-MEB156073	Jan-06
CLPP-Cal-2		0.1 mL		Inorganic Ventures	W-SB02080	Jan-06
CLPP-Cal-3		0.1 mL		Inorganic Ventures	X-CICP15095	Jan-06
BONNER-CAL-1		0.1 mL		Inorganic Ventures	Y-MEB186022	Mar-06
Continuing Calibration Blank	CCB	NA	50 mL	In-house	BA-092005BAW-1	48 hours
If Needed						

*Dilutions of standards are made with the same Acid Water as the S0, CCB, & ICB.

Prepared By: [signature] Analyst

Reviewed By: [signature] 9-29-05 Supervisor/Date

REVIEWED By: [signature]

Rev 1.0
02/04/02
CMB

REAGENTS PREPARATION LOG

ICP Reference Standard

024

Preparation Date: 9/06/05 Prepared By: [signature] Batch No.: BA-090605JSG-1

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	3.7854L ~~5 gallons~~	BATCO	NA	NA	NA
Cesium	Neat	11.1 ~~55.5~~ g	Aldrich	126092C	4/05	NA
Scandium	10,000	1.9 ~~9.5~~ mL	SCP Science	SC435177	7/18/05	10/06

Instrument: ICP01 or ICP02

Final Volume : 5 gallons

Concentration: Sc @ 5 ppm & Cs @ 2000 ppm

Used For: Internal Standards for ICP

Expiration Date 6 Month after preparation

REVIEWED By: [signature]

Comments

Reviewed By: [signature] 9/6/5
Supervisor/Date

REAGENTS PREPARATION LOG

Acidified Water

Preparation Date: 9-20-05 Prepared By: [signature] Batch No.: BA- 092005BAW-1

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Acidified Water	Neat	~18800 mL	BATCO	NA	NA	NA
Nitric Acid	Neat	200 mL	Mallinckrodt	B21038	7-29-05	NA
Hydrochloric Acid	Neat	1000 mL	Mallinckrodt	A51A00	7-29-05	NA

Instrument: ICP- AES

Final Volume : **5 Gallons**

Concentration: HNO3 @ 1% & HCl @ 5%

Used For: Preparation of Standards and Samples

Expiration Date **6 months**

Comments

Reviewed By: [signature] 9/20/05
Supervisor/Date

REVIEWED By: [signature]

Bonner Analytical Testing Co.

Metals Analytical Run Log

File Name: M092905A
Method & Instrument: CLP-Ciros01A
Analyst: JWW

SDG No.: MH1FZ6
Case No.: 34642

Standards Prep Date: 9/29/2005
Standards Log Page No.: 123

Elements circled for S0-S3 were used throughout this run unless otherwised noted.

Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, K, Mg, Mn, Na, Ni, Se, Ag, Tl, V, Zn

Lab ID	EPA Sample #	Date & Time
S0		9/29/2005 09:48
S		9/29/2005 09:53
S		9/29/2005 09:58
S		9/29/2005 10:03
ICV01		9/29/2005 10:08
ICB01		9/29/2005 10:12
CRI01		9/29/2005 10:17
ICSA01		9/29/2005 10:23
ICSAB01		9/29/2005 10:27
CCV01		9/29/2005 10:32
CCB01		9/29/2005 10:37
PBW092205E	ZZZZZ	9/29/2005 10:50
LCSW092205	ZZZZZ	9/29/2005 10:55
BT23655	ZZZZZ	9/29/2005 11:00
BT23656	ZZZZZ	9/29/2005 11:04
BT23656 4X	ZZZZZ	9/29/2005 11:24
BT23657	ZZZZZ	9/29/2005 11:28
BT23657D	ZZZZZ	9/29/2005 11:33
BT23657S	ZZZZZ	9/29/2005 11:38
BT23657L	ZZZZZ	9/29/2005 11:43
BT23658	ZZZZZ	9/29/2005 11:48
CCV02		9/29/2005 11:52
CCB02		9/29/2005 11:57
BT23657 4X	ZZZZZ	9/29/2005 12:05
BT23657D 4X	ZZZZZ	9/29/2005 12:10
BT23657S 4X	ZZZZZ	9/29/2005 12:15
BT23657L 20	ZZZZZ	9/29/2005 12:20
BT23657A	ZZZZZ	9/29/2005 12:24
BT00000	ZZZZZ	9/29/2005 12:34
CRI02		9/29/2005 12:39
CRI03		9/29/2005 12:46
ICSA02		9/29/2005 12:50
ICSAB02		9/29/2005 12:55
CCV03		9/29/2005 13:00
CCB03		9/29/2005 13:05
PBS092805B	ZZZZZ	9/29/2005 13:09
LCSS092805	ZZZZZ	9/29/2005 13:14
BT23758	ZZZZZ	9/29/2005 13:19
BT23758D	ZZZZZ	9/29/2005 13:24
BT23758S	ZZZZZ	9/29/2005 13:29
BT23758L	ZZZZZ	9/29/2005 13:33
BT23758A	ZZZZZ	9/29/2005 13:38
PBW092805A	PBW01	9/29/2005 13:43
LCSW092805	LCSW01	9/29/2005 13:48
BT23711	MH1FZ4	9/29/2005 13:52
CCV04		9/29/2005 13:57
CCB04		9/29/2005 14:02
BT23712	MH1FZ6	9/29/2005 14:07

REVIEWED BY: Jensa

Bonner Analytical Testing Co.

Metals Analytical Run Log

File Name: M092905A
Method & Instrument: CLP-Ciros01A
Analyst: JWW

SDG No.: MH1FZ6
Case No.: 34642

Standards Prep Date: 9/29/2005
Standards Log Page No.: 123

Lab ID	EPA Sample #	Date & Time	
BT23712D	MH1FZ6D	9/29/2005 14:11	AS CALIBRATED
BT23712S	MH1FZ6S	9/29/2005 14:16	
BT23712L	MH1FZ6L	9/29/2005 14:21	
BT23713	MH1FZ8	9/29/2005 14:26	
BT23714	MH1G00	9/29/2005 14:31	
CRI04		9/29/2005 14:35	
ICSA03		9/29/2005 14:40	
ICSAB03		9/29/2005 14:45	
CCV05		9/29/2005 14:50	
CCB05		9/29/2005 14:54	
BT23715	MH1G02	9/29/2005 14:59	
BT23716	MH1G04	9/29/2005 15:04	
BT23717	MH1G06	9/29/2005 15:09	
BT23718	MH1G08	9/29/2005 15:14	
BT23719	MH1G10	9/29/2005 15:18	
BT23720	MH1G12	9/29/2005 15:23	
BT23721	MH1G14	9/29/2005 15:28	
BT23722	MH1G16	9/29/2005 15:33	
BT23723	MH1G18	9/29/2005 15:38	
BT23724	MH1G20	9/29/2005 15:42	
CCV06		9/29/2005 15:47	
CCB06		9/29/2005 15:52	
BT23725	MH1G22	9/29/2005 15:57	
BT23726	MH1G24	9/29/2005 16:02	
BT23727	MH1G26	9/29/2005 16:06	
BT23728	MH1G28	9/29/2005 16:11	
BT23729	MH1G30	9/29/2005 16:16	
BT23730	MH1G32	9/29/2005 16:21	
CRI05		9/29/2005 16:26	
ICSA04		9/29/2005 16:30	
ICSAB04		9/29/2005 16:35	
CCV07		9/29/2005 16:40	
CCB07		9/29/2005 16:45	

REVIEWED
By

165

sample receipt

From: Brown, Jessica [jbrown208@fedcsc.com]
Sent: Tuesday, September 27, 2005 7:21 AM
To: Chris Bonner (E-mail); sample receipt
Cc: Carol Beard (E-mail)
Subject: Region 08 | Case 34642 | Lab BONNER | Issue Multiple | FINAL

Dear Belinda,

Per Region 8, the following are the resolutions to the issues concerning Case 34642:

Issue 1) No temp blank present. Cooler temps were determined to be 7.7°C, 5°C, 3.1°C, and 7.4°C.
Resolution 1) In accordance with previous direction from Region 8, the laboratory will note the issue, and the method used to determine the temperature, in the SDG Narrative and proceed with the analysis of the samples.

Issue 2) Samples MH1G19 and 20 had a time of 11:30 listed on TR/COC. Sample tags listed a time of 11:00 for both samples. Please advise on how to proceed.
Resolution 2) Sample time for MHG19 should be 11: 00 and sample MHG20 is 11:30.

Issue 3) Sample MH1G36 had a ph of 3, and sample MH1G37 had a ph of 4. Please advise on how to proceed.
Resolution 3) Laboratory should adjust the pH for these samples and note this in the case narrative.

Issue 4) SDG MH1FZ6 did not list a QC. We would like to choose MH1FZ6 for laboratory QC.
SDG MH1G01 did not list a QC. We would like to choose MH1G01 for laboratory QC.
SDG MH1G25 did not list a QC. We would like to choose MH1G25 for laboratory QC.
Resolution 4) In accordance with previous direction from Region 8, the laboratory will select a sample for laboratory QC as long as the sample is not a PE, blank, or rinsate sample. The laboratory will note the issue in the SDG Narrative, notify the SMO coordinator of the sample selected for laboratory QC, and proceed with the analysis of the samples.

SMO will report that BONNER selected MH1FZ6 as lab QC for SDG MH1FZ6, MH1G01 as lab QC for SDG MH1G01, and MH1G25 as lab QC for SDG MH1G25.

Thank you,
Jessica

Jessica Brown
Environmental Scientist
Computer Sciences Corporation
CLP Coordinator for Regions 4 & 8
Phone: (703) 818-4215; Fax: (703) 818-4602
jbrown208@fedcsc.com

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-----Original Message-----
From: Beard.Carol@epamail.epa.gov [mailto:Beard.Carol@epamail.epa.gov]
Sent: Monday, September 26, 2005 5:05 PM
To: Brown, Jessica
Subject: Re: Region 08 | Case 34642 | Lab BONNER | Issue Multiple

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David/Jessica - Resolutions for 2and3 below:
2. Sample time for MHG19 should be 11: 00 and sample MHG20 is 11:30.
3. Laboratory should adjust the pH for these samples and note this in the case narrative.

-----Original Message-----
From: Brown, Jessica
Sent: Monday, September 26, 2005 4:38 PM
To: Carol Beard (E-mail)
Subject: Region 08 | Case 34642 | Lab BONNER | Issue Multiple

This is David Garey. Jessica is currently out of the office.

Carol, please advise on issues 2 and 3 below. The remainder of the issues can be resolved using standard answers.

Thanks,

DG

-----Original Message-----
From: Shannon Chadwell [mailto:schadwell@batco.com]
Sent: Monday, September 26, 2005 4:03 PM
To: Brown, Jessica
Cc: Chris Bonner
Subject: Region 8 | Case 34642 | Sample Receipt

Jessica,

On 9/24/05 we received 47 waters in four coolers under Fed Ex air bill number 8525 3929 6726. Custody seals were present and intact. Cooler temps were determined to be 7.7°C, 5°C, 3.1°C, and 7.4°C. Samples were in good condition except for the following discrepancies:

No temp blank present.

Samples MH1G19 and 20 had a time of 11:30 listed on TR/COC. Sample tags listed a time of 11:00 for both samples. Please advise on how to proceed.

Sample MH1G36 had a ph of 3, and sample MH1G37 had a ph of 4. Please advise on how to proceed.

SDG MH1FZ6 did not list a QC. We would like to choose MH1FZ6 for laboratory QC.

SDG MH1G01 did not list a QC. We would like to choose MH1G01 for laboratory QC.

SDG MH1G25 did not list a QC. We would like to choose MH1G25 for laboratory QC.

Thanks,

Belinda Graham
Bonner Analytical
68W02067

Bonner Analytical Testing Company

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01493

Corrective Action

Topic: MH|F26 Date: 9/30/05

Nature of Problem: 1) CRI02 Failed for Pb

Action Requested:

1 New Sample Requested: YES NO

2 Retest or Reanalysis Necessary: YES NO

3 Other Action:

Submitter

Signature: J Woodard Date: 9/30/05

Corrective Action Taken: 1) CRI03 passed for all elements

Was the problem resolved: YES NO

Responder

Signature: [illegible] Date: 9-30-05

6/29
0498

Bonner Analytical Testing Co.

Metals Analytical Run Log

File Name: M092905A
Method & Instrument: CLP-Ciros01A
Analyst: JWW

SDG No.: MH1FZ6
Case No.: 34642

Standards Prep Date: 9/29/2005
Standards Log Page No.: 123

Elements circled for S0-S3 were used throughout this run unless otherwised noted.

Lab ID	EPA Sample #	Date & Time	
S0		9/29/2005 09:48	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, K, Mg, Mn, Na, Ni, Se, Ag, Tl, V, Zn
S		9/29/2005 09:53	
S		9/29/2005 09:58	
S		9/29/2005 10:03	
ICV01		9/29/2005 10:08	
ICB01		9/29/2005 10:12	
CRI01		9/29/2005 10:17	
ICSA01		9/29/2005 10:23	
ICSAB01		9/29/2005 10:27	
CCV01		9/29/2005 10:32	
CCB01		9/29/2005 10:37	
PBW092205E	ZZZZZ	9/29/2005 10:50	
LCSW092205	ZZZZZ	9/29/2005 10:55	
BT23655	ZZZZZ	9/29/2005 11:00	
BT23656	ZZZZZ	9/29/2005 11:04	
BT23656 4X	ZZZZZ	9/29/2005 11:24	
BT23657	ZZZZZ	9/29/2005 11:28	
BT23657D	ZZZZZ	9/29/2005 11:33	
BT23657S	ZZZZZ	9/29/2005 11:38	
BT23657L	ZZZZZ	9/29/2005 11:43	
BT23658	ZZZZZ	9/29/2005 11:48	
CCV02		9/29/2005 11:52	
CCB02		9/29/2005 11:57	
BT23657 4X	ZZZZZ	9/29/2005 12:05	
BT23657D 4X	ZZZZZ	9/29/2005 12:10	
BT23657S 4X	ZZZZZ	9/29/2005 12:15	
BT23657L 20	ZZZZZ	9/29/2005 12:20	
BT23657A	ZZZZZ	9/29/2005 12:24	
BT00000	ZZZZZ	9/29/2005 12:34	
CRI02		9/29/2005 12:39	
CRI03		9/29/2005 12:46	
ICSA02		9/29/2005 12:50	
ICSAB02		9/29/2005 12:55	
CCV03		9/29/2005 13:00	
CCB03		9/29/2005 13:05	
PBS092805B	ZZZZZ	9/29/2005 13:09	
LCSS092805	ZZZZZ	9/29/2005 13:14	
BT23758	ZZZZZ	9/29/2005 13:19	
BT23758D	ZZZZZ	9/29/2005 13:24	
BT23758S	ZZZZZ	9/29/2005 13:29	
BT23758L	ZZZZZ	9/29/2005 13:33	
BT23758A	ZZZZZ	9/29/2005 13:38	
PBW092805A	PBW01	9/29/2005 13:43	
LCSW092805	LCSW01	9/29/2005 13:48	
BT23711	MH1FZ4	9/29/2005 13:52	
CCV04		9/29/2005 13:57	
CCB04		9/29/2005 14:02	
BT23712	MH1FZ6	9/29/2005 14:07	

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By:

Bonner Analytical Testing Co.

Metals Analytical Run Log

File Name: M092905A
Method & Instrument: CLP-Ciros01A
Analyst: JWW

SDG No.: MH1FZ6
Case No.: 34642

Standards Prep Date: 9/29/2005
Standards Log Page No.: 123

Lab ID	EPA Sample #	Date & Time	
BT23712D	MH1FZ6D	9/29/2005 14:11	AS CALIBRATED
BT23712S	MH1FZ6S	9/29/2005 14:16	
BT23712L	MH1FZ6L	9/29/2005 14:21	
BT23713	MH1FZ8	9/29/2005 14:26	
BT23714	MH1G00	9/29/2005 14:31	
CRI04		9/29/2005 14:35	
ICSA03		9/29/2005 14:40	
ICSAB03		9/29/2005 14:45	
CCV05		9/29/2005 14:50	
CCB05		9/29/2005 14:54	
BT23715	MH1G02	9/29/2005 14:59	
BT23716	MH1G04	9/29/2005 15:04	
BT23717	MH1G06	9/29/2005 15:09	
BT23718	MH1G08	9/29/2005 15:14	
BT23719	MH1G10	9/29/2005 15:18	
BT23720	MH1G12	9/29/2005 15:23	
BT23721	MH1G14	9/29/2005 15:28	
BT23722	MH1G16	9/29/2005 15:33	
BT23723	MH1G18	9/29/2005 15:38	
BT23724	MH1G20	9/29/2005 15:42	
CCV06		9/29/2005 15:47	
CCB06		9/29/2005 15:52	
BT23725	MH1G22	9/29/2005 15:57	
BT23726	MH1G24	9/29/2005 16:02	
BT23727	MH1G26	9/29/2005 16:06	
BT23728	MH1G28	9/29/2005 16:11	
BT23729	MH1G30	9/29/2005 16:16	
BT23730	MH1G32	9/29/2005 16:21	
CRI05		9/29/2005 16:26	
ICSA04		9/29/2005 16:30	
ICSAB04		9/29/2005 16:35	
CCV07		9/29/2005 16:40	
CCB07		9/29/2005 16:45	

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By: Jensen

Calibration Standard Sample name: S0

170

Intensity Ratio (n=3)

	Ag328.068 [Ratio]	Al394.401 [Ratio]	As189.042 [Ratio]	Ba233.527 [Ratio]	Be313.107 [Ratio]	Ca318.128 [Ratio]	Cd226.502 [Ratio]	Co228.615 [Ratio]
x	**0.0546m**	**0.0154m**	**-7.1109µ**	**0.0165m**	**0.3967m**	**2.3612m**	**0.0171m**	**-5.1520µ**
s	0.0245m	0.0142m	4.5386µ	0.0229m	0.0102m	0.0374m	0.0179m	0.0245m
sr	44.960	92.038	63.825	138.676	2.563	1.585	104.690	475.338

	Cr267.716 [Ratio]	Cu324.754 [Ratio]	Fe262.829 [Ratio]	K766.490 [Ratio]	Mg279.079 [Ratio]	Mn257.610 [Ratio]	Na330.237 [Ratio]	Ni231.604 [Ratio]
x	**0.0476m**	**1.3990m**	**0.2837m**	**0.0266**	**0.0826m**	**0.0844m**	**-1.7444m**	**-0.0272m**
s	9.0506µ	0.0312m	0.0177m	5.1133m	7.8813µ	0.0243m	3.1142m	0.0125m
sr	19.011	2.230	6.231	19.244	9.542	28.762	178.530	45.835

	Pb168.215 [Ratio]	Sb206.833 [Ratio]	Se196.090 [Ratio]	Ti334.941 [Ratio]	Tl190.864 [Ratio]	V292.402 [Ratio]	Zn213.856 [Ratio]	Ar404.442 [cps]
x	**-1.8058µ**	**-4.4005µ**	**-0.0274m**	**0.0203m**	**9.1011µ**	**0.2387m**	**0.1550m**	**853628**
s	7.5212µ	5.6293µ	7.9333µ	0.0208m	6.9869µ	7.8747µ	2.8743µ	9390.44
sr	416.506	127.923	28.956	102.265	76.770	3.300	1.854	1.100

	Cs459.317 [cps]	Sc361.384 [cps]
x	**8423.67**	**5056.k**
s	81.6966	46594.3
sr	0.970	0.922

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By:

Calibration Standard Sample name: ~~S1~~ 5 ppm 9/30/05

171

Intensity Ratio (n=3)

	Ag328.068 [Ratio]	Al394.401 [Ratio]	As189.042 [Ratio]	Ba233.527 [Ratio]	Be313.107 [Ratio]	Ca318.128 [Ratio]	Cd226.502 [Ratio]	Co228.615 [Ratio]
x	**0.6092m**	**1.0753m**	**0.0673m**	**7.6569m**	**3.0150m**	**3.5605m**	**0.9944m**	**0.9216m**
s	0.9430µ	0.0258m	4.3480µ	0.0455m	0.0142m	0.0358m	0.0138m	0.0184m
sr	0.155	2.400	6.464	0.594	0.470	1.007	1.387	2.000

	Cr267.716 [Ratio]	Cu324.754 [Ratio]	Fe262.829 [Ratio]	K766.490 [Ratio]	Mg279.079 [Ratio]	Mn257.610 [Ratio]	Na330.237 [Ratio]	Ni231.604 [Ratio]
x	**0.6542m**	**2.1332m**	**0.7056m**	**1.2889**	**1.6813m**	**8.4303m**	**0.0127**	**0.4887m**
s	0.0190m	0.0120m	0.0349m	1.9520m	0.0140m	0.0545m	1.9602m	9.9049µ
sr	2.903	0.560	4.949	0.151	0.834	0.647	15.480	2.027

	Pb168.215 [Ratio]	Sb206.833 [Ratio]	Se196.090 [Ratio]	Ti334.941 [Ratio]	Tl190.864 [Ratio]	V292.402 [Ratio]	Zn213.856 [Ratio]	Ar404.442 [cps]
x	**0.0673m**	**0.0769m**	**0.0413m**	**8.1750m**	**0.1161m**	**1.8744m**	**2.4597m**	**844362**
s	4.7156µ	7.1286µ	3.7985µ	0.0483m	5.6456µ	0.0314m	0.0192m	2683.99
sr	7.006	9.272	9.190	0.591	4.864	1.673	0.783	0.318

	Cs459.317 [cps]	Sc361.384 [cps]
x	**8483.67**	**5024.k**
s	8.5049	20542.5
sr	0.100	0.409

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Calibration Standard Sample name: S2 TWW 9/30/05

172

Intensity Ratio (n=3)

	Ag328.068 [Ratio]	Al394.401 [Ratio]	As189.042 [Ratio]	Ba233.527 [Ratio]	Be313.107 [Ratio]	Ca318.128 [Ratio]	Cd226.502 [Ratio]	Co228.615 [Ratio]
x	**0.0110**	**0.0207**	**1.2541m**	**0.1516**	**0.0536**	**0.0240**	**0.0195**	**0.0185**
s	0.1112m	0.2731m	4.9708µ	1.6156m	0.5194m	0.2592m	0.0736m	0.1169m
sr	1.008	1.318	0.396	1.066	0.969	1.080	0.377	0.634

	Cr267.716 [Ratio]	Cu324.754 [Ratio]	Fe262.829 [Ratio]	K766.490 [Ratio]	Mg279.079 [Ratio]	Mn257.610 [Ratio]	Na330.237 [Ratio]	Ni231.604 [Ratio]
x	**0.0123**	**0.0155**	**8.9938m**	**24.9134**	**0.0319**	**0.1659**	**0.2005**	**0.0106**
s	0.0883m	0.1987m	0.1222m	0.2138	0.2297m	1.1075m	4.2059m	0.0567m
sr	0.720	1.286	1.358	0.858	0.720	0.668	2.097	0.537

	Pb168.215 [Ratio]	Sb206.833 [Ratio]	Se196.090 [Ratio]	Ti334.941 [Ratio]	Tl190.864 [Ratio]	V292.402 [Ratio]	Zn213.856 [Ratio]	Ar404.442 [cps]
x	**1.1653m**	**1.8983m**	**0.9400m**	**0.1620**	**1.9389m**	**0.0331**	**0.0448**	**848854**
s	0.0148m	0.0130m	0.0106m	1.3614m	0.0169m	0.3922m	0.3533m	5456.59
sr	1.266	0.685	1.130	0.840	0.869	1.187	0.788	0.643

	Cs459.317 [cps]	Sc361.384 [cps]
x	**8620.33**	**5039.k**
s	77.6938	70113.9
sr	0.901	1.391

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Calibration Standard Sample name: S3 9/30/05

173

Intensity Ratio (n=3)

	Ag328.068 [Ratio]	Al394.401 [Ratio]	As189.042 [Ratio]	Ba233.527 [Ratio]	Be313.107 [Ratio]	Ca318.128 [Ratio]	Cd226.502 [Ratio]	Co228.615 [Ratio]
x	**0.1117**	**0.2100**	**0.0130**	**1.4865**	**0.5324**	**0.2192**	**0.1922**	**0.1849**
s	0.4287m	1.1679m	0.0402m	3.2457m	3.7042m	1.3376m	0.6259m	0.5888m
sr	0.384	0.556	0.310	0.218	0.696	0.610	0.326	0.319

	Cr267.716 [Ratio]	Cu324.754 [Ratio]	Fe262.829 [Ratio]	K766.490 [Ratio]	Mg279.079 [Ratio]	Mn257.610 [Ratio]	Na330.237 [Ratio]	Ni231.604 [Ratio]
x	**0.1221**	**0.1456**	**0.0865**	**228.994**	**0.3238**	**1.6497**	**2.1139**	**0.1045**
s	0.7408m	0.5193m	0.7863m	2.1262	3.4165m	0.0160	0.0114	0.3419m
sr	0.607	0.357	0.909	0.928	1.055	0.971	0.539	0.327

	Pb168.215 [Ratio]	Sb206.833 [Ratio]	Se196.090 [Ratio]	Ti334.941 [Ratio]	Tl190.864 [Ratio]	V292.402 [Ratio]	Zn213.856 [Ratio]	Ar404.442 [cps]
x	**0.0117**	**0.0195**	**0.0102**	**1.6281**	**0.0192**	**0.3306**	**0.4506**	**838452**
s	0.0377m	0.1299m	0.0175m	3.4002m	0.1128m	3.6935m	5.6669m	2435.20
sr	0.323	0.665	0.172	0.209	0.588	1.117	1.258	0.290

	Cs459.317 [cps]	Sc361.384 [cps]
x	**9577.33**	**4934.k**
s	141.394	16045.1
sr	1.476	0.325

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Calibr. Verification Std. Sample name: ICV01

174

Concentration (Dilution Calculation) (n=3)

	Ag328.068 [Conc]	Al394.401 [Conc]	As189.042 [Conc]	Ba233.527 [Conc]	Be313.107 [Conc]	Ca318.128 [Conc]	Cd226.502 [Conc]	Co228.615 [Conc]
x	**489.230**	**2518.63**	**960.931**	**501.395**	**~484.152**	**10036.0**	**493.020**	**494.562**
s	4.4481	36.3838	6.3623	4.0204	9.3664	131.676	7.0647	5.0470
sr	0.909	1.445	0.662	0.802	1.935	1.312	1.433	1.020

	Cr267.716 [Conc]	Cu324.754 [Conc]	Fe262.829 [Conc]	K766.490 [Conc]	Mg279.079 [Conc]	Mn257.610 [Conc]	Na330.237 [Conc]	Ni231.604 [Conc]
x	**482.936**	**483.644**	**5002.35**	**10049.8**	**5901.08**	**498.190**	**9981.08**	**496.482**
s	5.3244	5.0517	53.5558	64.6511	77.4344	5.5940	43.5276	3.2765
sr	1.103	1.045	1.071	0.643	1.312	1.123	0.436	0.660

	Pb168.215 [Conc]	Sb206.833 [Conc]	Se196.090 [Conc]	Ti334.941 [Conc]	Tl190.864 [Conc]	V292.402 [Conc]	Zn213.856 [Conc]	Ar404.442 [cps]
x	**982.119**	**953.965**	**973.827**	**1.4019**	**1015.45**	**491.134**	**988.123**	**849461**
s	4.4488	9.8972	14.1400	0.0417	3.9150	5.3111	12.6272	6909.14
sr	0.453	1.037	1.452	2.972	0.386	1.081	1.278	0.813

	Cs459.317 [cps]	Sc361.384 [cps]
x	**8783.00**	**5011.k**
s	156.038	28671.7
sr	1.777	0.572

Calibr. Verification Std. Sample name: ICB01

175

Concentration (Dilution Calculation) (n=3)

	Ag328.068 [Conc]	Al394.401 [Conc]	As189.042 [Conc]	Ba233.527 [Conc]	Be313.107 [Conc]	Ca318.128 [Conc]	Cd226.502 [Conc]	Co228.615 [Conc]
x	*0.0657	2.3061	-2.1825	-0.2424	0.0170	-1.5029	*0.1459	*0.0344
s	0.2164	1.9925	3.1714	0.0893	0.0185	1.6882	0.1471	0.1532
sr	329.224	86.402	145.313	36.851	108.916	112.329	100.803	445.383

	Cr267.716 [Conc]	Cu324.754 [Conc]	Fe262.829 [Conc]	K766.490 [Conc]	Mg279.079 [Conc]	Mn257.610 [Conc]	Na330.237 [Conc]	Ni231.604 [Conc]
x	-0.0533	*0.1963	*1.7788	*0.3596	*0.8574	*0.0299	*57.4767	-0.3978
s	0.4132	0.2100	1.1630	1.0751	1.5671	0.0216	75.2065	0.2909
sr	775.542	106.940	65.381	299.005	182.775	72.445	130.847	73.115

	Pb168.215 [Conc]	Sb206.833 [Conc]	Se196.090 [Conc]	Ti334.941 [Conc]	Tl190.864 [Conc]	V292.402 [Conc]	Zn213.856 [Conc]	Ar404.442 [cps]
x	-0.4759	-0.4371	*3.4052	0.3084	*0.9035	*0.0417	*0.0403	856985
s	1.0929	1.7023	1.4116	0.0994	2.0953	0.2180	0.0611	9744.52
sr	229.667	389.470	41.455	32.224	231.910	522.295	151.383	1.137

	Cs459.317 [cps]	Sc361.384 [cps]
x	8486.00	5045.k
s	55.5608	42021.8
sr	0.655	0.833

Calibr. Verification Std. Sample name: CRI01

176

Concentration (Dilution Calculation) (n=3)

	Ag328.068 [Conc]	Al394.401 [Conc]	As189.042 [Conc]	Ba233.527 [Conc]	Be313.107 [Conc]	Ca318.128 [Conc]	Cd226.502 [Conc]	Co228.615 [Conc]
x	**9.4696**	**191.733**	**9.4620**	**193.728**	**4.7513**	**4841.05**	**4.8085**	**49.0997**
s	0.1298	2.3709	2.8909	2.6165	0.0388	58.9664	0.1639	0.7865
sr	1.371	1.237	30.552	1.351	0.817	1.218	3.409	1.602

	Cr267.716 [Conc]	Cu324.754 [Conc]	Fe262.829 [Conc]	K766.490 [Conc]	Mg279.079 [Conc]	Mn257.610 [Conc]	Na330.237 [Conc]	Ni231.604 [Conc]
x	**9.5923**	**23.2817**	**95.5012**	**4800.71**	**4745.32**	**14.5654**	**4810.57**	**38.4408**
s	0.3935	0.3855	1.9331	22.0849	49.5759	0.1663	29.3840	0.2438
sr	4.102	1.656	2.024	0.460	1.045	1.142	0.611	0.634

	Pb168.215 [Conc]	Sb206.833 [Conc]	Se196.090 [Conc]	Ti334.941 [Conc]	Tl190.864 [Conc]	V292.402 [Conc]	Zn213.856 [Conc]	Ar404.442 [cps]
x	**9.5842**	**56.8727**	**43.1177**	**0.3332**	**26.9970**	**48.5983**	**57.1253**	**866398**
s	3.2537	5.3083	2.5868	0.0508	1.9453	0.1649	0.6500	8416.67
sr	33.949	9.334	5.999	15.247	7.206	0.339	1.138	0.971

	Cs459.317 [cps]	Sc361.384 [cps]
x	**8767.33**	**5092.k**
s	118.395	59144.3
sr	1.350	1.161

Interference Check Std. AB Sample name: ICSA01 177

Concentration (Dilution Calculation) (n=3)

	Ag328.068 [Conc]	Al394.401 [Conc]	As189.042 [Conc]	Ba233.527 [Conc]	Be313.107 [Conc]	Ca318.128 [Conc]	Cd226.502 [Conc]	Co228.615 [Conc]
x	**-1.7001**	**>266300**	**-4.0368**	**3.2230**	**0.2727**	**>254238**	**0.6662**	**3.3792**
s	0.3423	873.248	3.2661	0.1398	0.0079	3700.32	0.3440	0.5471
sr	20.133	0.328	80.909	4.336	2.910	1.455	51.631	16.191

	Cr267.716 [Conc]	Cu324.754 [Conc]	Fe262.829 [Conc]	K766.490 [Conc]	Mg279.079 [Conc]	Mn257.610 [Conc]	Na330.237 [Conc]	Ni231.604 [Conc]
x	**35.9203**	**12.8192**	**>100380**	**23.5523**	**>259992**	**26.4522**	**840.200**	**12.6541**
s	0.4204	0.2375	966.756	0.9244	2605.16	0.1534	36.8877	0.5049
sr	1.170	1.853	0.963	3.925	1.002	0.580	4.390	3.990

	Pb168.215 [Conc]	Sb206.833 [Conc]	Se196.090 [Conc]	Ti334.941 [Conc]	Tl190.864 [Conc]	V292.402 [Conc]	Zn213.856 [Conc]	Ar404.442 [cps]
x	***2.0128**	**-10.4339**	**-3.0538**	**0.6926**	**16.0251**	**2.9113**	**43.7663**	**824900**
s	2.3529	4.3693	3.2823	0.1375	2.4018	0.1809	0.2012	15079.7
sr	116.900	41.877	107.481	19.857	14.988	6.215	0.460	1.828

	Cs459.317 [cps]	Sc361.384 [cps]
x	**9664.67**	**4778.k**
s	258.516	39509.4
sr	2.675	0.827

Interference Check Std. AB Sample name: ICSAB01 178

Concentration (Dilution Calculation) (n=3)

	Ag328.068 [Conc]	Al394.401 [Conc]	As189.042 [Conc]	Ba233.527 [Conc]	Be313.107 [Conc]	Ca318.128 [Conc]	Cd226.502 [Conc]	Co228.615 [Conc]
x	**206.232**	**>262891**	**99.6212**	**494.809**	**479.262**	**>248703**	**971.524**	**485.488**
s	1.8588	1224.10	3.8763	2.4510	6.1922	2878.49	7.1258	3.3025
sr	0.901	0.466	3.891	0.495	1.292	1.157	0.733	0.680

	Cr267.716 [Conc]	Cu324.754 [Conc]	Fe262.829 [Conc]	K766.490 [Conc]	Mg279.079 [Conc]	Mn257.610 [Conc]	Na330.237 [Conc]	Ni231.604 [Conc]
x	**514.999**	**528.654**	**>98986.7**	**14.9179**	**>259804**	**522.525**	**701.940**	**993.638**
s	3.1653	1.4870	418.630	0.1589	2372.85	0.5971	30.4523	10.6831
sr	0.615	0.281	0.423	1.065	0.913	0.114	4.338	1.075

	Pb168.215 [Conc]	Sb206.833 [Conc]	Se196.090 [Conc]	Ti334.941 [Conc]	Tl190.864 [Conc]	V292.402 [Conc]	Zn213.856 [Conc]	Ar404.442 [cps]
x	**49.0477**	**564.351**	**39.3816**	**0.8861**	**110.677**	**498.266**	**1029.86**	**848090**
s	1.8530	3.9178	1.0740	0.0266	1.9322	1.1124	6.4986	3282.23
sr	3.778	0.694	2.727	3.004	1.746	0.223	0.631	0.387

	Cs459.317 [cps]	Sc361.384 [cps]
x	**9959.33**	**4846.k**
s	49.3997	29677.7
sr	0.496	0.612

Calibr. Verification Std. Sample name: CCV01

179

Concentration (Dilution Calculation) (n=3)

	Ag328.068 [Conc]	Al394.401 [Conc]	As189.042 [Conc]	Ba233.527 [Conc]	Be313.107 [Conc]	Ca318.128 [Conc]	Cd226.502 [Conc]	Co228.615 [Conc]
x	**997.171**	**8108.75**	**2019.64**	**8151.12**	**200.872**	**20409.6**	**1027.38**	**2037.37**
s	11.2117	58.6757	9.7496	114.756	0.4930	197.361	8.1863	16.1496
sr	1.124	0.724	0.483	1.408	0.245	0.967	0.797	0.793

	Cr267.716 [Conc]	Cu324.754 [Conc]	Fe262.829 [Conc]	K766.490 [Conc]	Mg279.079 [Conc]	Mn257.610 [Conc]	Na330.237 [Conc]	Ni231.604 [Conc]
x	**809.802**	**995.714**	**4069.36**	**19753.4**	**20268.9**	**2023.53**	**19779.1**	**2037.86**
s	7.4379	10.0155	42.0020	166.964	216.015	6.6850	69.1666	14.1984
sr	0.918	1.006	1.032	0.845	1.066	0.330	0.350	0.697

	Pb168.215 [Conc]	Sb206.833 [Conc]	Se196.090 [Conc]	Ti334.941 [Conc]	Tl190.864 [Conc]	V292.402 [Conc]	Zn213.856 [Conc]	Ar404.442 [cps]
x	**2043.53**	**1998.66**	**2046.78**	**2507.99**	**2034.83**	**2006.15**	**2007.66**	**877066**
s	25.3349	16.2791	18.8070	10.3105	15.9310	25.4719	22.0375	5189.72
sr	1.240	0.815	0.919	0.411	0.783	1.270	1.098	0.592

	Cs459.317 [cps]	Sc361.384 [cps]
x	**9209.00**	**5080.k**
s	166.304	46335.2
sr	1.806	0.912

Calibr. Verification Std. Sample name: CCB01 180

Concentration (Dilution Calculation) (n=3)

	Ag328.068 [Conc]	Al394.401 [Conc]	As189.042 [Conc]	Ba233.527 [Conc]	Be313.107 [Conc]	Ca318.128 [Conc]	Cd226.502 [Conc]	Co228.615 [Conc]
x	*0.6654	7.8940	*0.1771	*0.3828	*0.0068	*7.7938	-0.0593	*0.1742
s	0.4229	0.9409	0.8570	0.2097	0.0184	9.6311	0.0714	0.2760
sr	63.558	11.919	483.961	54.789	268.995	123.575	120.460	158.429

	Cr267.716 [Conc]	Cu324.754 [Conc]	Fe262.829 [Conc]	K766.490 [Conc]	Mg279.079 [Conc]	Mn257.610 [Conc]	Na330.237 [Conc]	Ni231.604 [Conc]
x	*0.1399	-0.0241	*0.4186	*0.5918	7.0496	*0.0872	*34.4446	*0.3062
s	0.1740	0.3459	1.8708	0.4643	1.9757	0.0384	69.9331	1.2594
sr	124.368	1435.80	446.957	78.455	28.026	44.049	203.031	411.276

	Pb168.215 [Conc]	Sb206.833 [Conc]	Se196.090 [Conc]	Ti334.941 [Conc]	Tl190.864 [Conc]	V292.402 [Conc]	Zn213.856 [Conc]	Ar404.442 [cps]
x	-0.0176	2.7244	12.1165	0.4713	*0.0043	*0.0024	*0.0509	886891
s	2.5309	1.8876	3.4996	0.1881	2.1939	0.1194	0.1021	7083.33
sr	14398.8	69.284	28.883	39.908	51572.6	5042.46	200.686	0.799

	Cs459.317 [cps]	Sc361.384 [cps]
x	8593.33	5143.k
s	74.8888	35740.9
sr	0.871	0.695

LAB ID:: PBW092205B EPA Sample #:: PBW01 SDG#:: MB35M3 Case No:: 34433 181
Operator:: JWW File Name:: M092905A

Concentration (Dilution Calculation) (n=3)

	Ag	Al	As	Ba	Be	Ca	Cd	Co
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x	*0.2080	7.4603	-2.1148	-0.7354	0.1264	15.3025	-0.0689	*0.3737
s	0.2726	2.8012	1.6807	0.1450	0.0240	4.5971	0.2525	0.4354
sr	131.072	37.548	79.472	19.715	18.981	30.041	366.404	116.511

	Cr	Cu	Fe	K	Mg	Mn	Na	Ni
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x	1.4710	*0.0285	*2.7649	8.1005	4.6972	0.2224	629.6829	1.5629
s	0.3223	0.4641	2.8736	0.3924	2.0130	0.0128	81.9452	0.1617
sr	21.914	1625.83	103.932	4.844	42.856	5.770	13.014	10.349

	Pb	Sb	Se	Ti	Tl	V	Zn	Ar
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	[cps]
x	-1.2508	-0.4055	*2.1825	0.2604	-2.1161	*0.1731	1.8181	887024.0
s	1.0289	1.2891	3.3407	0.0956	0.7418	0.2575	0.0813	11654.6143
sr	82.260	317.932	153.066	36.699	35.055	148.771	4.469	1.314

	Cs	Sc
	[cps]	[cps]
x	8027.6665	5113402
s	118.7111	36128.1094
sr	1.479	0.707

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LAB ID:: LCSW092205B EPA Sample #:: LCSW01 SDG#:: MB35M3 Case No:: 34433
Operator:: JWW File Name:: M092905A

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Concentration (Dilution Calculation) (n=3)

	Ag	Al	As	Ba	Be	Ca	Cd	Co
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x	**473.6924**	**2431.7747**	**917.2509**	**497.4117**	**468.1356**	**9941.4063**	**487.7968**	**496.6391**
s	3.2172	6.4419	17.8333	4.9327	1.7600	81.0672	4.2503	6.4300
sr	0.679	0.265	1.944	0.992	0.376	0.815	0.871	1.295

	Cr	Cu	Fe	K	Mg	Mn	Na	Ni
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x	**486.6951**	**478.7856**	**4985.8623**	**9175.4102**	**5837.1025**	**494.8102**	**10029.0244**	**497.4287**
s	2.2551	2.6561	21.0756	123.0164	47.5311	8.4113	134.6115	7.0349
sr	0.463	0.555	0.423	1.341	0.814	1.700	1.342	1.414

	Pb	Sb	Se	Ti	Tl	V	Zn	Ar
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	[cps]
x	**981.2128**	**923.5963**	**867.4279**	**0.5336**	**988.6060**	**487.9481**	**943.0178**	**884015.3**
s	17.1566	12.8683	21.8379	0.1276	18.1178	2.8650	8.5305	4964.6597
sr	1.749	1.393	2.518	23.914	1.833	0.587	0.905	0.562

	Cs	Sc
	[cps]	[cps]
x	**8361.3330**	**5109406**
s	76.0088	15083.6934
sr	0.909	0.295

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LAB ID:: BT23655 EPA Sample #:: MB35M2 SDG#:: MB35M3 Case No:: 34433 183
Operator:: JWW File Name:: M092905A

Concentration (Dilution Calculation) (n=3)

	Ag	Al	As	Ba	Be	Ca	Cd	Co
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x	**-1.1832**	**3259.5332**	**24.0323**	**1483.2157**	**0.2637**	**5589.6123**	**15.3189**	**11.2988**
s	0.3821	45.7026	1.9352	28.0833	0.0157	98.4833	0.3896	0.4893
sr	32.292	1.402	8.052	1.893	5.971	1.762	2.543	4.330

	Cr	Cu	Fe	K	Mg	Mn	Na	Ni
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x	**100.0643**	**>4107.8740**	**>122525.0**	**837.9980**	**1205.8091**	**606.2667**	**432.1856**	**68.6496**
s	1.7105	21.6356	1279.2892	13.5804	25.6865	9.0777	55.8490	1.8886
sr	1.709	0.527	1.044	1.621	2.130	1.497	12.922	2.751

	Pb	Sb	Se	Ti	Tl	V	Zn	Ar
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	[cps]
x	**>9029.9199**	**5.5384**	**8.1145**	**44.7621**	**8.0187**	**7.5984**	**>7040.3975**	**830863.0**
s	187.5589	1.5256	2.3721	0.4635	0.8002	0.4330	77.0279	14910.1895
sr	2.077	27.546	29.233	1.036	9.980	5.699	1.094	1.795

	Cs	Sc
	[cps]	[cps]
x	**8564.0000**	**5379912**
s	76.6094	34719.8906
sr	0.895	0.645

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