



November 14, 2003

Vanasse Hangen Brustlin, Inc.

Ref: 06392

Shamindar Singh  
Project Manager  
New York State Department of Environmental Conservation  
Region 2 Office  
47-40 21<sup>st</sup> Street  
Long Island City, New York 11101

Re: Additional Sampling - Newtown Elmhurst Holder Site (VCA#D2-0002099-01)

Dear Mr. Singh:

The following paragraphs briefly summarize the additional sampling conducted by Vanasse Hangen Brustlin, Inc. (VHB) at above referenced site.

## Background

Per our discussions on October 16, 2003 at the New York State Department of Environmental Conservation (NYSDEC) Region 2 offices, VHB conducted additional surface soil sampling to support Voluntary Cleanup Agreement (VCA) closure at the above-referenced site. Sampling was to be conducted in the northeast portion of the site adjacent to residential properties, at off-site locations adjacent to the east side of the site (Verizon), and at off-site locations along adjacent streets. The new sampling data, in conjunction with existing on and off-site data will be used to support NYSDEC's issuance of a "No further Action" letter for the VCA.

## Field Work

Sampling was conducted on October 21 and 22, 2003. 15 discrete surface soil samples were collected from six on-site locations and nine off-site locations (NSS-01A through NSS-015A). Surface soil samples from a 0-2" interval were collected with precleaned dedicated stainless steel spoons. Soils were transferred directly into lab sample bottles. Sample QA/QC included a duplicate and a field blank. Samples were labeled, packaged, and preserved (stored on ice) before being delivered to H2M Labs, Inc. (H2M) for analysis. All sample points were located via GPS survey.

Shamindar Singh  
Project No.: 06392  
November 14, 2003

## Sample Results

Soil samples were analyzed for lead via EPA method 6010B. Concentration from on-site samples ranged from 82.9 ppm to 778 ppm. Off-site results ranged from 141 ppm to 1020 ppm. The highest concentration detected was located east of the Verizon parking lot at sample point NSS-09A. Refer to Table 1 for a summary of sample data.

The data summary and complete analytical data packages are attached. The laboratory internal QA/QC procedures indicate the data set meets method standards. Duplicate sample analysis was consistent with original sample results, and the field blank was non-detect for lead. The data is useful for the purpose of this project. The laboratory data package has not been subject to third party data validation.

## Data Presentation

Oversize figure Ev-1 has the sample locations and results of the most recent sampling effort, and perimeter/off-site sample results for samples collected during site investigation and interim response measure (IRM) activities. Figure Ev-2 identifies on-site lead concentrations and sampling locations prior to initiation of IRM sampling and remediation work. Figure Ev-3 identifies areas which were remediated (by excavation and off-site disposal) and closure sampling results. Corresponding depths and type of sample (grab or composite) are identified on each figure.

## Discussion of Results

The most recent soil analytical data is consistent with previously generated data from sample points adjacent to the site boundary or off-site, and is indicative of the variability of lead concentrations in urban settings. The average off-site concentration detected was 442 ppm. This compares to 592 ppm detected off-site by a local resident in 1997, 272.3 ppm detected by KeySpan in 1997, and an average of 568.2 ppm detected as part of the IRM sampling program.

Concerns over off-site migration of lead via overland flow on the Verizon parking lot are mitigated by:

- The Verizon lot is curbed on both the eastern and western boundary. The curb on the western boundary and adjacent lawn would effectively "trap" any soils/particulate migrating from the subject site eastward. This is supported by the high concentrations of lead previously detected (and remediated) in surface and subsurface soils in this area.
- The curb on the eastern boundary has contained runoff, precluding flows to the grass areas east of the parking lot. This is supported by the most recent analytical data which indicates

Shamindar Singh  
Project No.: 06392  
November 14, 3003

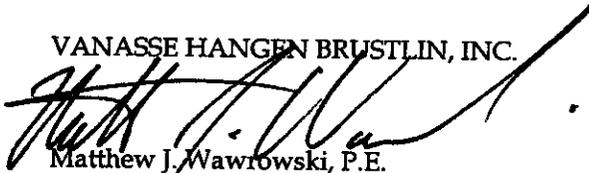
surface soil east of the parking lot contain less than 1/10<sup>th</sup> the concentration of lead previously detected in on-site soils on the eastern boundary of the site.

- The local topography of the parking lot is a "bowl" shape preventing runoff to adjacent properties.

We look forward to meeting with you to discuss the results. Please call me at 716-655-2734 with any questions or to set-up a meeting.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.



Matthew J. Wawrowski, P.E.  
Project Manager

xc. T. Bell (KeySpan)  
J. Lacetti (NYSDOH)  
K. Frantzen (VHB)

Attachments

**Table 1**  
**Summary of Additional On/Off-site Surface Soil samples**  
**KeySpan- Newtown Station Site**  
**Queens, NY**

Sample Identification	Results (ppm)	Notes/Location
NSS-01A	778	On-site, NE access
NSS-02A	577	On-site, NE corner
NSS-03A	530	On-site, East Fence
NSS-04A	626	On-site, East Fence
NSS-05A	524	On-site, East Fence
NSS-06A	82.9	On-site, East Fence
NSS-07A	307	Verizon
NSS-08A	738	Verizon
NSS-09A	1020	Verizon, South of 54th
NSS-10A	319	Verizon
NSS-11A	274	Verizon, East of Bldg.
NSS-12A	597	North side of Grand
NSS-13A	308	SW corner 80th/Grand
NSS-14A	141	SW corner 80th/Grand
NSS15A	276	South side of 57th
Average on-site	520	
Average off-site	442	
Average	473	

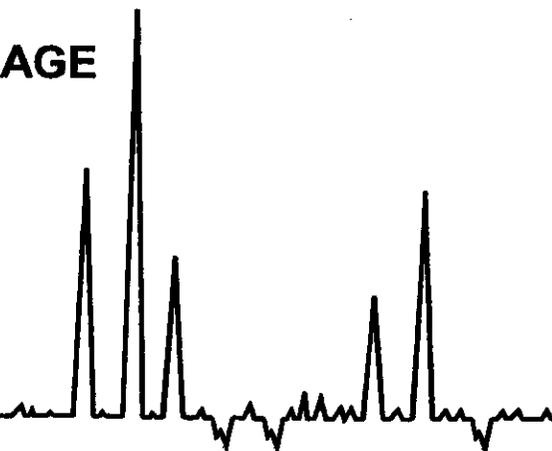
Analytical Data Package For

**KEYSPAN  
VANASSE HANGEN BRUSTLIN  
NEWTOWN STATION  
SDG NO: VHBNY004**

Soil Samples  
Received: 10/22/03

**SAMPLE DATA SUMMARY PACKAGE**

OCTOBER 2003



**H2M LABS, INC.**

Environmental Testing Laboratories  
575 Broad Hollow Road, Melville, N.Y. 11747

## SAMPLE DATA SUMMARY PACKAGE

### TABLE OF CONTENTS

KEYSPAN  
VANASSE HANGEN BRUTSLIN  
NEWTOWN STATION  
SOIL SAMPLES  
SDG NO.: VHBNY004  
SAMPLES RECEIVED: 10/22/03

1. NYS DEC SUMMARY FORMS
2. CHAIN OF CUSTODY DOCUMENTATION
3. SDG NARRATIVES
4. SAMPLE REPORTS  
4.1 METALS
5. DUPLICATE SUMMARY RESULTS  
5.1 METALS
6. SPIKE SAMPLE RESULTS  
6.1 METALS
7. BLANK SUMMARY DATA AND RESULTS  
7.1 METALS

# H2M LABS, INC.

1. NYS DEC SUMMARY FORMS



# H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ENVIRONMENTAL TESTING LABORATORIES, INC.  
SAMPLE PREPARATION AND ANALYSIS SUMMARY  
INORGANIC ANALYSES  
SOIL SAMPLES  
KEYSPAN-VANASSE HANGEN BRUSTLIN  
SDG NO.: VHBNY004  
SAMPLES RECEIVED: 10/22/03

SAMPLE ID	MATRIX	ANALYSIS REQUESTED	DATE RECEIVED	DATE * ANALYZED
NSS-01A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-02A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-03A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-04A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-05A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-06A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-07A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-08A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-09A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-10A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-11A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-12A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-13A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-14A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-15A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-FB	WATER	TOTAL LEAD	10/22/03	10/03

\* SEE INDIVIDUAL RUN SHEETS FOR EXACT DATES.  
As, Ba, Cd, Cr, Pb, Se, and Ag  
PAGE 6 OF 6

VHBNY004 S4

# H2M LABS, INC.

## 2. CHAIN OF CUSTODY DOCUMENTATION

575 Bro. Hollow Rd, Melville, NY 11747-5076

Tel: (516) 694-3040 Fax: (516) 420-8436

CLIENT: KEYVHB-NY

H2M SDG NO: VHB01004

Project Contact:  
Maddie Wawrowski  
Phone Number:  
(516) 655-2734

NOTES:  
\*1 Weak Verbal  
Ltr w/ HNO3  
RO2 under jar

Newtown Station

SAMPLERS: (signature)/Client

*[Signature]*

DELIVERABLES:

BS-703

TURNAROUND TIME:

21 days\*

DATE	TIME	MATRIX	FIELD I.D.	ANALYSIS REQUESTED			LAB I.D. NO.	REMARKS:
				ORGANIC	INORG.	OTHER		
10/21	1540	SOIL	N55-01A		2	0310005-001		
10/21	1545		N55-02A		3			
10/21	1550		N55-03A		4			
10/21	1553		N55-04A		5			
10/21	1558		N55-05A		6			
10/21	1600		N55-06A		7			
10/22	840		N55-07A		8			
10/22	847		N55-08A		9			
10/22	853		N55-09A		10			
10/22	858		N55-10A		11			
10/22	1600	FB	N55-FB		1		Fisc Bank	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>[Signature]</i>	10/21/03	12:00	<i>[Signature]</i>	10/26/03	11:45
<i>[Signature]</i>	10/21/03	12:00	<i>[Signature]</i>	10/26/03	12:00
<i>[Signature]</i>			<i>[Signature]</i>		
<i>[Signature]</i>			<i>[Signature]</i>		

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N Explain:

LABORATORY USE ONLY

1. Shipped \_\_\_ or Hand Delivered \_\_\_ Airbill # \_\_\_  
 2. Ambient or chilled  
 3. Received in good condition: Y or N  
 4. Properly preserved: Y or N  
 5. Samples returned to lab \_\_\_ Hrs from collection.

COC Trace was:  
 1. Present on outer package: Y or N  
 2. Unbroken on outer package: Y or N  
 3. COC record present & complete upon sample receipt: Y or N



VHB NY 004

H2M LABS, INC.

Sample Receipt Checklist

Client Name KEYVHB-NY

Date and Time Receive 10/22/2003 12:00:00 PM

Work Order Number 0310665

Received by AM

Checklist completed by [Signature] 10/22/03  
Signature Date

Reviewed by SMB 10/22/03  
Initials Date

Matrix Carrier name Hand Delivered

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Refrigerator/Temp Blank temperature in compliance? Yes  No  206C
- Water - VOA vials have zero headspace? Yes  No VOA vials submitted  Yes  No
- Water - pH acceptable upon receipt? Yes  No

Adjusted? \_\_\_\_\_ Checked by \_\_\_\_\_

Any No and/or NA (not applicable) response must be detailed in the comments section b

-----

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Corrective Action \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

VHB NY 004 S8

# H2M LABS, INC.

folder 10/22

## INTERNAL CHAIN OF CUSTODY

\* 1 week verbal SA

CLIENT: Key VHB-NY DELIVERABLES: B5-70D TURN AROUND TIME: 21 days

SDG#: VHBNY004 CASE #: \_\_\_\_\_ MATRIX: SOIL PH CHECK Y/N

REMARKS: PIS #087 Key-VHB Newtown

RECEIVED BY: ABM SIGNATURE: [Signature] DATE: 10/21/03 TIME: 1200

CLIENT ID	H2M LAB #	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
NSS-01A	0310665 001A	10/21/03	A	1	6010-S-PKG (See)
02A	002A	↓	↓	↓	↓
03A	003A	↓	↓	↓	↓
04A	004A	↓	↓	↓	↓
05A	005A	↓	↓	↓	↓
06A	006A	↓	↓	↓	↓
07A	007A	10/22/03	↓	↓	↓
08A	008A	↓	↓	↓	↓
09A	009A	↓	↓	↓	↓
10A	010A	↓	↓	↓	↓
11A	011A	↓	↓	↓	↓
12A <sup>method</sup>	012A	↓	↓	2	↓
13A	013A	↓	↓	1	↓
14A	014A	↓	↓	↓	↓
15A	015A	↓	↓	↓	↓
↓ FB	↓ 016A	↓	EN	↓	6010-W-PKG (See)
			ABM	10/22/03	

METALS

VHBNY004-S9



# H2M LABS, INC.

## 3. SDG NARRATIVES

# H2M LABS, INC.

SDG NARRATIVE FOR METALS  
SAMPLE RECEIVED: 10/22/03  
SDG #: VHBNY004

For Sample:

- |         |                |
|---------|----------------|
| NSS-01A | NSS-09A        |
| NSS-02A | NSS-10A        |
| NSS-03A | NSS-11A        |
| NSS-04A | NSS-12A MS/MSD |
| NSS-05A | NSS-13A        |
| NSS-06A | NSS-14A        |
| NSS-07A | NSS-15A        |
| NSS-08A | NSS-FB         |

One water sample and fifteen soil samples were received by H2M Labs, Inc. on 10/22/03 for lead analysis.

Samples was prepared and analyzed using EPA method 6010B with a TJA61E Trace ICP instrument.

Sample N-12A was utilized for QC analysis and reporting.

Lead spike analysis did not recover within 75-125%. Since the sample value exceeded the spike value by more than four times, post spikes and data qualifiers were not required.

No other problems were noted during the analysis of this sample group.

**I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.**

Date Reported: October 28, 2003

\*\*\*\*\*  
\*  
\*  
\*  
\*\*\*\*\*  
Vincent Stancampiano  
Vice President

VHBNY004 S12  
10/28/03

# H2M LABS, INC.

## 4. SAMPLE REPORTS 4.1 METALS

# H2M LABS, INC.

## QUALIFIERS FOR METALS ANALYSIS

### Q (Quality Control) Qualifiers

- E - The reported value is estimated because of the presence of interference. An explanatory note is included in the SDG narrative.
- M - Duplicate injection precision not met.
- N - Matrix spike sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- + - Correlation coefficient for the MSA is less than 0.995
- 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.
- \* - Duplicate analysis is not within control limits.

### C (Concentration) Qualifiers

- B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).
- U - Entered if the analyte was analyzed for but not detected, i.e., less than the IDL.

### M (Method) Qualifiers

- P - Analyzed by ICP.
- A - Analyzed by Flame AA.
- F - Analyzed by Furnace AA.
- CV - Analyzed by Manual Cold Vapor techniques.
- AV - Analyzed by Automated Cold Vapor techniques.
- C - Analyzed by Manual Spectrophotometric Method.
- CA - Analyzed by Midi-distillation Spectrophotometric Method.
- NR - Analyte not Required.

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-01A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-001

Level (low/med): LOW

Date Received: 10/22/2003

\* Solids: 79.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	778			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

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U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-02A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-002

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 80.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	577			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

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U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-03A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-003

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 77.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	530			P

Color Before: BROWN

Clarity Before: \_\_\_\_\_

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-04A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478 Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-004

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 76.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	626			P

Color Before: BROWN

Clarity Before: \_\_\_\_\_

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

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U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-05A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-005

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 81.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	524			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

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U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-06A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-006

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 30.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	82.9			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

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U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-07A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-007

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 72.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	307			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

VHBNY004 S21

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

Lab Name: H2M LABS, INC.

Contract:

NSS-08A

Lab Code: 10478 Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-008

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 89.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	738			P

Color Before: BROWN Clarity Before: \_\_\_\_\_

Texture: FINE

Color After: YELLOW Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

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U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-10A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-010

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 90.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	319			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

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U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-11A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-011

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 81.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	274			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

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U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-12A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-012

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 85.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	597			P

Color Before: BROWN

Clarity Before: \_\_\_\_\_

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-13A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-013

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 86.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	308			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-14A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-014

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 79.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	141			P

Color Before: BROWN

Clarity Before: \_\_\_\_\_

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

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U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-15A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-015

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 86.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	276			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

Date Reported: 10/25/03

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U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-FB

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): WATER

Lab Sample ID: 0310665-016

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	1.1	U		P

Color Before: COLORLESS Clarity Before: CLEAR

Texture: \_\_\_\_\_

Color After: COLORLESS Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

# H2M LABS, INC.

- 5. **DUPLICATE SUMMARY RESULTS**
  - 5.1 METALS

U.S. EPA - CLP

6  
DUPLICATES

EPA SAMPLE NO

NSS-12A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478 Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 85.2

% Solids for Duplicate: 85.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Lead		596.9570		641.6964		7.2		P

# H2M LABS, INC.

- 6. SPIKE SUMMARY RESULTS
  - 6.1 METALS

U.S. EPA - CLP

5A  
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO

NSS-12AS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 85.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Lead		619.1235	596.9570	2.35	944.3		P

Comments:

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# H2M LABS, INC.

## 7. BLANK SUMMARY DATA AND RESULTS

### 7.1 METALS

U.S. EPA - CLP

3  
BLANKS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Lead	1.1	U	1.1	U	1.3		1.4		0.240	B	P

U.S. EPA - CLP

3  
BLANKS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Lead			1.1	U							P

U.S. EPA - CLP

3  
BLANKS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Lead	1.1	U	1.1	U	1.3		1.4		1.100	U	P

U.S. EPA - CLP

3  
BLANKS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Lead			1.1	U							P

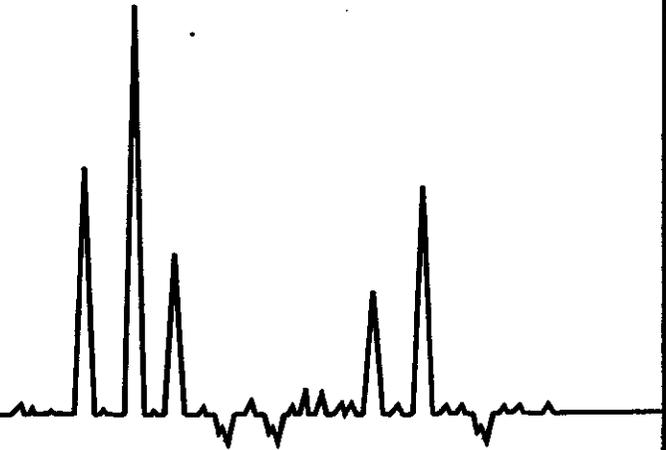
Analytical Data Package For

**KEYSPAN  
VANASSE HANGEN BRUSTLIN  
NEWTOWN STATION  
SDG NO: VHBNY004**

Soil Samples  
Received: 10/22/03

**METALS DATA PACKAGE**

OCTOBER 2003



**H2M LABS, INC.**

Environmental Testing Laboratories  
575 Broad Hollow Road, Melville, N.Y. 11747

**ANALYTICAL DATA PACKAGE**

**TABLE OF CONTENTS**

KEYSPAN  
VANASSE HANGEN BRUSTLIN  
NEWTOWN STATION  
SOIL SAMPLES  
SAMPLES RECEIVED: 10/22/03  
SDG NO.: VHBNY004

- I. SUMMARY FORMS
- II. SDG NARRATIVES
- III. CHAIN OF CUSTODY DOCUMENTATION
- IV. ANALYTICAL DATA PACKAGES
  - A. METALS

**DATA PACKAGE FOR CLIENT INFORMATION  
PURPOSES ONLY**

**I. SUMMARY FORMS**



# H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ENVIRONMENTAL TESTING LABORATORIES, INC.  
SAMPLE PREPARATION AND ANALYSIS SUMMARY  
INORGANIC ANALYSES  
SOIL SAMPLES  
KEYSPAN-VANASSE HANGEN BRUSTLIN  
SDG NO.: VHBNY004  
SAMPLES RECEIVED: 10/22/03

SAMPLE ID	MATRIX	ANALYSIS REQUESTED	DATE RECEIVED	DATE * ANALYZED
NSS-01A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-02A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-03A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-04A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-05A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-06A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-07A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-08A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-09A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-10A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-11A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-12A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-13A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-14A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-15A	SOIL	TOTAL LEAD	10/22/03	10/03
NSS-FB	WATER	TOTAL LEAD	10/22/03	10/03

\* SEE INDIVIDUAL RUN SHEETS FOR EXACT DATES.

\*\* As, Ba, Cd, Cr, Pb, Se, and Ag

PAGE 6 OF 6

VHBNY004 A4

**II. SDG NARRATIVES**

# H2M LABS, INC.

SDG NARRATIVE FOR METALS  
SAMPLE RECEIVED: 10/22/03  
SDG #: VHBNY004

For Sample:

NSS-01A	NSS-09A
NSS-02A	NSS-10A
NSS-03A	NSS-11A
NSS-04A	NSS-12A MS/MSD
NSS-05A	NSS-13A
NSS-06A	NSS-14A
NSS-07A	NSS-15A
NSS-08A	NSS-FB

One water sample and fifteen soil samples were received by H2M Labs, Inc. on 10/22/03 for lead analysis.

Samples was prepared and analyzed using EPA method 6010B with a TJA61E Trace ICP instrument.

Sample N-12A was utilized for QC analysis and reporting.

Lead spike analysis did not recover within 75-125%. Since the sample value exceeded the spike value by more than four times, post spikes and data qualifiers were not required.

No other problems were noted during the analysis of this sample group.

**I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.**

Date Reported: October 28, 2003

\*\*\*\*\*  
\*  
\*  
\*\*\*\*\*

Vincent Stancampiano  
Vice President

VHBNY004 A/c 10/28/03

**III. CHAIN OF CUSTODY DOCUMENTATION**

**CLIENT:** KEYVHR-NY **H2M SDG NO:** VHCNY004

**Project Contact:** Mark Winirowski  
**Phone Number:** (516) 655-2734

**NOTES:** \* 1 Weak Verbal

**ANALYSIS REQUESTED:**

ORGANIC	INORG.	LAB I.D. NO.	REMARKS:
VOA	Metals	0310005-001	
BNA		2	
TOC		3	
		4	
		5	
		6	
		7	
		8	
		9	
		10	
		11	Field Blank

**LABORATORY USE ONLY**

Discrepancies Between Sample Labels and COC Record? Y or N Explain:

1. Shipped or Hand Delivered Airbill#  
 2. Ambient or chilled  
 3. Received in good condition: Y or N  
 4. Property preserved: Y or N  
 5. Samples returned to lab Hrs from collection.  
 COC Tags was:  
 1. Present on outer package: Y or N  
 2. Unbroken on outer package: Y or N  
 3. COC record present & complete upon sample receipt: Y or N

**CLIENT:** KEYVHR-NY **PROJECT NAME/NUMBER:** Newtown Station

**SAMPLERS:** (signature) Client  
 (signature) Winirowski

**DELIVERABLES:** BS-703

**TURNAROUND TIME:** 21 days\*

DATE	TIME	MATRIX	FIELD I.D.	Date	Time	Received by: (Signature)
10/21	1500	SOIL	N55-01A	10/26/05	11:45	(Signature)
10/21	1500		N55-02A	10/26/05	12:00	(Signature)
10/21	1500		N55-03A			
10/21	1500		N55-04A			
10/21	1500		N55-05A			
10/21	1500		N55-06A			
10/22	847		N55-07A			
10/22	853		N55-08A			
10/22	858		N55-09A			
10/22	858		N55-10A			
10/22	858		N55-FB			

**LABORATORY USE ONLY**

Relinquished by: (Signature) Date Time Received by: (Signature) Date Time

Relinquished by: (Signature) Date Time Received by: (Signature) Date Time

Relinquished by: (Signature) Date Time Received by: (Signature) Date Time

Relinquished by: (Signature) Date Time Received by: (Signature) Date Time

**CLIENT:** *EEV VHS - NY* **H2M SDG NO:** *VHBAJY004*

**Project Contact:** *MAY*  
**Phone Number:** *710 655 2734*

**Project Name/Number:** *NEWTOWN STATION*

**SAMPLER:** (signature) *[Signature]*

**DELIVERABLES:** *BS-70D*

**TURNAROUND TIME:** *21 DAYS \**

**NOTES:** *\* 1 USEK VGRAM*

DATE	TIME	MATRIX	FIELD I.D.	ANALYSIS REQUESTED			INORG.	REMARKS:
				VOA	BA	PC		
10/22	905	SOIL	NSS-11A					
10/22	930		NSS-17A				X	0310665-011
10/22	935		NSS-13A					12 DUPLICATE
10/22	943		NSS-14A					13
10/22	947		NSS-15A					14
								15

**LABORATORY USE ONLY**

**Discrepancies Between Sample Labels and COC Record? Y or N** Explain:

**LABORATORY USE ONLY**

**Sample(s) were:**

- Shipped \_\_\_ or Hand Delivered \_\_\_ Airbill# \_\_\_
- Ambient or chilled
- Received in good condition: Y or N
- Property preserved: Y or N
- Sample returned to lab \_\_\_ Hrs from collection. COC label was:
  - Present on outer package: Y or N
  - Unbroken on outer package: Y or N
  - COC record present & complete upon sample receipt: Y or N

VHBNY004

H2M LABS, INC.

Sample Receipt Checklist

Client Name KEYVHB-NY

Date and Time Receive 10/22/2003 12:00:00 PM

Work Order Number 0310665

Received by AM

Checklist completed by [Signature] 10/22/03  
Signature Date

Reviewed by SMB 10/22/03  
Initials Date

Matrix Carrier name Hand Delivered

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No  206C
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - pH acceptable upon receipt? Yes  No

Adjusted? \_\_\_\_\_ Checked by \_\_\_\_\_

Any No and/or NA (not applicable) response must be detailed in the comments section b

-----

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Corrective Action \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

VHBNY004 A10

# H2M LABS, INC.

Folder 10/22

## INTERNAL CHAIN OF CUSTODY

\* 1 week verbal SA

CLIENT: Key VHB-NY DELIVERABLES: B5-70D TURN AROUND TIME: 21 days

SDG#: VHBNY004 CASE #: \_\_\_\_\_ MATRIX: SOL PH CHECK Y or N

REMARKS: PIS #087 Key-VHB Newtown

RECEIVED BY: ASM SIGNATURE: [Signature] DATE: 10/22/03 TIME: 1200

CLIENT ID	H2M LAB #	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
NSS-01A	030665 001A	10/21/03	A	1	6010-S-PKG (see)
02A	002A				
03A	003A				
04A	004A				
05A	005A				
06A	006A	↓			
07A	007A	10/22/03			
08A	008A				
09A	009A				
10A	010A				
11A	011A			↓	
12A <sup>metal</sup>	012A			2	
13A	013A			1	
14A	014A				
15A	015A		↓		
↓ FB	↓ 016A	↓	EN	↓	6010-W-PKG (see)
			ASM		
				10/22/03	

METALS

VHBNY004 A11



**IV. ANALYTICAL DATA PACKAGE  
A. METALS**

# H2M LABS, INC.

VHBNY004

## METALS

### TABLE OF CONTENTS

- I. REPORTS
- II. QC SUMMARY
- III. RAW DATA
- IV. DOCUMENTATION

VHBNY004 M1

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

SOW No.: ILM04.1

EPA Sample No.	Lab Sample ID.
<u>NSS-01A</u>	<u>0310665-001</u>
<u>NSS-02A</u>	<u>0310665-002</u>
<u>NSS-03A</u>	<u>0310665-003</u>
<u>NSS-04A</u>	<u>0310665-004</u>
<u>NSS-05A</u>	<u>0310665-005</u>
<u>NSS-06A</u>	<u>0310665-006</u>
<u>NSS-07A</u>	<u>0310665-007</u>
<u>NSS-08A</u>	<u>0310665-008</u>
<u>NSS-09A</u>	<u>0310665-009</u>
<u>NSS-10A</u>	<u>0310665-010</u>
<u>NSS-11A</u>	<u>0310665-011</u>
<u>NSS-12A</u>	<u>0310665-012</u>
<u>NSS-12AD</u>	<u>0310665-012DUP</u>
<u>NSS-12AS</u>	<u>0310665-012MS</u>
<u>NSS-13A</u>	<u>0310665-013</u>
<u>NSS-14A</u>	<u>0310665-014</u>
<u>NSS-15A</u>	<u>0310665-015</u>
<u>NSS-FB</u>	<u>0310665-016</u>

Were ICP interelement corrections applied? Yes/No YES

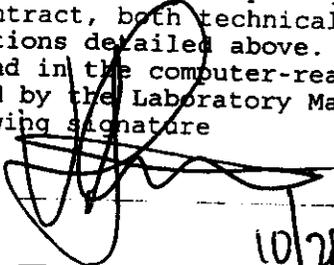
Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Date Reported: 10/25/03

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature

Signature: 

Name: Vincent Stancampiano

Date: 10/28/03

Title: Vice President

**I. REPORTS FOR METALS:**

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-02A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-002

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 80.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	577			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-03A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-003

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 77.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	530			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-04A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-004

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 76.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	626			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-05A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-005

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 81.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	524			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-06A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-006

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 30.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	82.9			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-07A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-007

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 72.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	307			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-09A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-009

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 95.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	1020			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-10A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-010

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 90.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	319			P

Color Before: BROWN

Clarity Before: \_\_\_\_\_

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-11A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-011

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 81.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	274			P

Color Before: BROWN

Clarity Before: \_\_\_\_\_

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-12A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-012

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 85.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	597			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-13A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-013

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 86.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	308			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-14A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-014

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 79.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	141			P

Color Before: BROWN

Clarity Before: \_\_\_\_\_

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-15A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Lab Sample ID: 0310665-015

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 86.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	276			P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

U.S. EPA - CLP

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

NSS-FB

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): WATER

Lab Sample ID: 0310665-016

Level (low/med): LOW

Date Received: 10/22/2003

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	1.1	U		P

Color Before: COLORLESS Clarity Before: CLEAR

Texture: \_\_\_\_\_

Color After: COLORLESS Clarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments:

Date Reported: 10/25/03

**II. QC SUMMARY FOR METALS**

- A. INITIAL AND CONTINUING CALIBRATION VERIFICATION**
- B. CRDL STANDARD FOR AA AND ICP**
- C. METHOD BLANK**
- D. ICP INTERFERENCE CHECK SAMPLE**
- E. SPIKE SAMPLE RECOVERY**
- F. POST DIGEST SPIKE SAMPLE RECOVERY**
- G. DUPLICATES**
- H. LABORATORY CONTROL SAMPLE**
- I. STANDARD ADDITION RESULTS**
- J. ICP SERIAL DILUTIONS**
- K. INSTRUMENT DETECTION LIMITS**
- L. ICP INTERELEMENT CORRECTION FACTORS**
- M. ICP LINEAR RANGES**
- N. PREPARATION LOGS**
- O. ANALYSIS RUN LOGS**

U.S. EPA - CLP

2A  
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Initial Calibration Verification Source: MV Labs/High Purity

Continuing Calibration Verification Source: MV Labs/High Purity

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration				M	
	True	Found	%R(1)	True	Found	%R(1)	Found		%R(1)
Lead	500.0	488.62	97.7	500.0	486.00	97.2	480.80	96.2	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A  
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Initial Calibration Verification Source: MV Labs/High Purity

Continuing Calibration Verification Source: MV Labs/High Purity

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration				M	
	True	Found	%R(1)	True	Found	%R(1)	Found		%R(1)
Lead				500.0	480.59	96.1	481.63	96.3	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2B  
CRDL STANDARD FOR AA AND ICP

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

AA CRDL Standard Source:

ICP CRDL Standard Source: MV Labs/High Purity

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
				True	Found	%R	Found	%R
Lead				6.0	5.91	98.5	8.11	135.2

U.S. EPA - CLP

3  
BLANKS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Lead	1.1	U	1.1	U	1.3		1.4		0.240	B	P

U.S. EPA - CLP

3  
BLANKS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Lead			1.1	U						P	

U.S. EPA - CLP

3  
BLANKS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
	C	1	C	2	C	3	C	C	M		
Lead	1.1	U	1.1	U	1.3	1.4	1.100	U	P		

U.S. EPA - CLP

3  
BLANKS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Lead			1.1	U							P

U.S. EPA - CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478 Case No.

SAS No.:

SDG No.: VHBNY004

ICP ID Number: TJA61EA

ICS Source: MV Labs/High Purity

Concentration Units: ug/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	500000	500000	498670	492913.4	98.6	505586	505903.3	101.2
Calcium	500000	500000	502536	501228.1	100.2	511430	508422.4	101.7
Iron	200000	200000	200269	200256.8	100.1	205303	203540.2	101.8
Lead		1000		969.8	97.0		980.5	98.0
Magnesium	500000	500000	499819	497454.8	99.5	505034	504282.8	100.9

U.S. EPA - CLP

5A  
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO

NSS-12AS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 85.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Lead		619.1235	596.9570	2.35	944.3		P

Comments:

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U.S. EPA - CLP

6  
DUPLICATES

EPA SAMPLE NO

NSS-12A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478 Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 85.2

% Solids for Duplicate: 85.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	M
Lead		596.9570	641.6964	7.2		P

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Solid LCS Source:

ERA

Aqueous LCS Source:

MV Labs/High Purity

*(Handwritten initials and date)*  
10/21/02

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Lead	500.0	477.48	95.5					

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Solid LCS Source:

ERA

*Adria*

Aqueous LCS Source:

MV Labs/High Purity

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Lead				72.8	59.2		57.7 87.7	70.0

U.S. EPA - CLP

8

STANDARD ADDITION RESULTS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON ABS	2 ADD CON ABS	3 ADD CON ABS	Final Conc.	r	Q
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U.S. EPA - CLP

9  
ICP SERIAL DILUTIONS

NSS-12A

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478 Case No.

SAS No.:

SDG No.: VHBNY004

Matrix (soil/water): SOIL

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Differ- ence	Q	M
Lead	5086.07	5557.58	9.3		P

U.S. EPA - CLP

10

INSTRUMENT DETECTION LIMITS (SEMI ANNUALLY)

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

ICP ID Number:

TJA61EA

Date:

9/15/2003

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Lead	220.35		3.0	1.1	P

Comments:

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U.S. EPA - CLP

11A  
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.:

NRAS No.:

SDG No.: VHBNY004

ICP ID Number:

TJA61EA

Date: 04/01/2003

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Co
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	-0.0170000
Antimony	206.84	0.0000000	0.0000000	0.0274000	0.0000000	-0.0794000
Antimony	206.84	0.0000000	0.0000000	0.0383000	0.0000000	0.0000000
Arsenic	189.04	0.0005500	0.0000000	-0.0100000	0.0000000	-0.2470000
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.68	0.0000000	0.0000000	-0.0004000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0001310	0.0000000	0.0016800
Calcium	317.93	0.0002960	0.0000000	0.0002290	0.0000000	0.0000000
Chromium	267.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	0.0000180	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	-0.0000400	0.0000000	-0.0004000
Iron	259.94	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	-0.2278000	0.0000000	0.0340000	0.0000000	0.0921300
Lead	220.35	0.4300000	0.0000000	0.0750000	0.0000000	0.0890000
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.1090000
Manganese	257.61	-0.0001200	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000380	0.0000000	-0.0002400
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	-0.0004200
Selenium	196.03	0.0000000	0.0000000	-0.0063000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.3540000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0034800	0.0000000	0.0000000
Sodium	589.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	407.77	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0057000	0.0000000	-0.3770000	0.0000000	-0.5780000

Comments:

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U.S. EPA - CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.:

NRAS No.:

SDG No.: VHBNY004

ICP ID Number:

TJA61EA

Date: 04/01/2003

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Co
Tin	189.99	-0.0000100	0.0000000	-0.0003900	0.0000000	-0.0000500
Titanium	334.94	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000200	0.0000000	0.0000000
Zinc	213.86	-0.0000100	0.0000000	0.0001460	0.0000000	0.0000000

Comments:

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U.S. EPA - CLP

11B  
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.:

NRAS No.:

SDG No.: VHBNY004

ICP ID Number:

TJA61EA

Date: 04/01/2003

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Cr	Cu	Mn	Ni	V
Aluminum	308.22	0.0000000	0.0000000	-0.0012000	0.0000000	0.0000000
Antimony	206.84	7.1400000	0.0000000	-0.3832000	0.0000000	0.0000000
Antimony	206.84	8.8100000	0.0000000	0.2512000	-1.0850000	-6.3800000
Arsenic	189.04	0.2500000	0.0000000	-0.2010000	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000300
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0001900
Boron	249.68	0.0002200	-0.0001000	-0.0001100	-0.0000900	-0.0003900
Cadmium	226.50	0.0000400	0.0000000	0.0000000	-0.0001800	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0018500
Chromium	267.62	0.0000000	-0.0000800	0.0000000	0.0000000	0.0002960
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0001700	0.0000150
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000360
Iron	259.94	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.0000000	-0.0038100	0.0000000	0.0000000
Lead	220.35	0.0000000	-0.0539600	0.1430000	0.1479000	-0.1910000
Lead	220.35	0.0000000	-0.0812000	0.0000000	0.3000000	-0.0190000
Magnesium	279.08	-0.0007900	0.0000000	-0.0052000	-0.0001100	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000960
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0018200
Selenium	196.03	0.0000000	0.0000000	0.3246000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.6184000	0.0000000	0.4522000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0176400	0.0000000	0.1780000	0.0000000	-0.1433000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	407.77	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.1720000	0.0000000	-0.7417000	0.0000000	-0.8950000

Comments:

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U.S. EPA - CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.:

NRAS No.:

SDG No.: VHBNY004

ICP ID Number:

TJA61EA

Date:

04/01/2003

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Cr	Cu	Mn	Ni	V
Tin	189.99	-0.0001100	-0.0001000	-0.0000900	-0.0000800	-0.0000800
Titanium	334.94	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.86	0.0000000	0.0005000	0.0000000	0.0003670	-0.0000300

Comments:

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U.S. EPA - CLP

12

ICP LINEAR RANGES (SEMI ANNUALLY)

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478 Case No.

SAS No.:

SDG No.: VHBNY004

ICP ID Number: TJA61EA

Date: 09/15/2003

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Lead	15.00	50000	P

Comments:

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U.S. EPA - CLP

13  
PREPARATION LOG

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: VHBNY004

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	10/22/2003	0.50	50
NSS-01A	10/22/2003	0.50	50
NSS-02A	10/22/2003	0.50	50
NSS-03A	10/22/2003	0.50	50
NSS-04A	10/22/2003	0.50	50
NSS-05A	10/22/2003	0.50	50
NSS-06A	10/22/2003	0.50	50
NSS-07A	10/22/2003	0.50	50
NSS-08A	10/22/2003	0.50	50
NSS-09A	10/22/2003	0.50	50
NSS-10A	10/22/2003	0.50	50
NSS-11A	10/22/2003	0.50	50
NSS-12A	10/22/2003	0.50	50
NSS-12AD	10/22/2003	0.50	50
NSS-12AS	10/22/2003	0.50	50
NSS-13A	10/22/2003	0.50	50
NSS-14A	10/22/2003	0.50	50
NSS-15A	10/22/2003	0.50	50
PBS	10/22/2003	0.50	50





**III. RAW DATA FOR METALS**

**A. ICP DATA**

CLIENT KEYVHBNY004

DATE 10/23/03

ASK: LCPI  
WIE TRACE

RESULT FILE: VHBNY04

ANALYST Melissa Romano

#	SAMPLE	NOTES	#	SAMPLE	NOTES
1	ICV		26	0310665-005A	NSS-05A
2	ICB		27	↓ -006A	↓ -06A
3	CRIF		28	↓ -007A	↓ -07A
4	ICSAI		29	↓ -008A	↓ -08A
5	ICSARI		30	CCV3	
6	CCVI		31	CCB3	
7	CCBI		32	0310665-009A	NSS-09A
8	MS-8429	KEYVHBNY004 PDS 10/22/03	33	↓ -010A	↓ -10A
9	LC5-8429	KEYVHBNY004 LC5W 10/22/03	34	↓ -011A	↓ -11A
10	0310665-016A	FB	35	CRIF	
11	MS-8428	KEYVHBNY004 PDS 10/22/03	36	ICSAF	
12	MS-8428	LOT: LC5S 10/22/03	37	ICSARI	
13	0310665-012A	NSS-12A	38	CCV4	
14	↓ -012A DP	↓ 12A DP	39	CCAF	
15	↓ -012A MS	↓ 12A MS	40		
16	↓ -012A SD	↓ 12A SD	41		
17	↓ -013A	↓ 13A	42		
18	CCV2		43		
19	CCB2		44		
20	0310665-014A	NSS-14A	45		
21	↓ -015A	↓ -15A	46		
22	↓ -001A	↓ -01A	47		
23	↓ -002A	↓ -02A	48		
24	↓ -003A	↓ -03A	49		
25	↓ -004A	↓ -04A	50		

*Melissa Romano*  
10/23/03

VHBNY004 M46

KEY VHBNY004

Method: CLP1

Standard: StdBLANK

Run Time: 10/23/03 07:44:16

Melissa Romano 10/23/03

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Avg	-.00423	.0054	.00340	.0012	.0001	-.0011	.0070
Dev	.00013	.0001	.00010	.0001	.0001	.0000	.0000
%RSD	2.9980	2.658	2.7973	6.720	33.35	1.888	.4376
#1	-.00412	.0056	.00339	.0013	.0002	-.0011	.0070
#2	-.00420	.0053	.00349	.0011	.0001	-.0011	.0071
#3	-.00437	.0054	.00330	.0012	.0001	-.0012	.0070

Elem	Cd	Co	Cr	Cu	Fe	Fe	K
Avg	-.0019	-.0002	.0001	.0035	.0000	.0181	.0072
Dev	.0008	.0000	.0002	.0000	.0000	.0037	.0003
%RSD	39.91	23.01	204.1	1.025	43.28	20.54	3.402
#1	-.0027	-.0002	.0000	.0035	.0000	.0220	.0074
#2	-.0013	-.0002	.0003	.0035	.0000	.0178	.0073
#3	-.0017	-.0001	-.0000	.0034	.0000	.0146	.0069

Elem	Mg	Mn	Mo	Na	Na	Ni	2203/1
Avg	.0002	.0004	.0001	-.0257	.5529	.0002	.02413
SDev	.0002	.0001	.0001	.0010	.0027	.0002	.01076
%RSD	78.82	33.12	114.5	3.944	.4866	91.70	44.597
#1	.0004	.0005	.0002	-.0265	.5560	.0000	.01522
#2	.0003	.0004	.0001	-.0260	.5520	.0004	.02108
#3	.0000	.0002	-.0000	-.0245	.5509	.0003	.03609

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	Si	Sn
Avg	.00047	-.00223	.00027	-.01041	.00211	.0378	.0040
Dev	.00171	.00195	.00071	.00077	.00051	.0004	.0007
%RSD	363.21	87.540	265.90	7.3803	24.119	1.116	16.66
#1	.00239	-.00057	.00084	-.01023	.00237	.0378	.0047
#2	-.00009	-.00173	.00048	-.01125	.00244	.0383	.0033
#3	-.00089	-.00437	-.00052	-.00974	.00153	.0374	.0041

Elem	Sr	Ti	Tl1908	V	Zn
Avg	.0001	.0000	-.00489	.0000	.0010
Dev	.0001	.0000	.00135	.0001	.0000
%RSD	36.70	86.60	27.634	132.2	3.746
#1	.0002	.0000	-.00643	.0001	.0011
#2	.0001	.0000	-.00438	.0001	.0010
#3	.0001	.0000	-.00387	-.0000	.0010

Method: CLP1                      Standard: StdAGSBH  
Run Time: 10/23/03 07:53:30

Element	Ag	2068/1	2068/2
Avg	.80553	3.1715	2.0453
Dev	.00233	.0636	.0182
%RSD	.28961	2.0058	.88748
#1	.80286	3.1013	2.0247
#2	.80656	3.1877	2.0526
#3	.80717	3.2254	2.0587

Method: CLP1 Standard: StdICSH

Run Time: 10/23/03 08:01:10

Line	Al	Ca	Fe	Mg
Avg	35.47	60.38	.7075	80.06
Dev	.05	.10	.0007	.10
%RSD	.1464	.1586	.0991	.1259
#1	35.52	60.43	.7075	80.11
#2	35.42	60.27	.7068	79.94
#3	35.46	60.43	.7082	80.12

Method: CLP1 Standard: StdFURNH  
Run Time: 10/23/03 08:08:03

	As1890	2203/1	2203/2	1960/1	1960/2	T11908
Avg	1.3296	4.8576	2.0086	.90942	.67158	1.1550
Dev	.0012	.0113	.0124	.00084	.00560	.0021
%RSD	.08682	.23354	.61852	.09215	.83305	.18267
#1	1.3300	4.8468	2.0016	.91015	.66636	1.1551
#2	1.3305	4.8694	2.0229	.90851	.67748	1.1570
#3	1.3283	4.8565	2.0012	.90961	.67089	1.1528

Method: CLP1 Standard: StdMULTH  
 Run Time: 10/23/03 08:15:43

Element	B	Ba	Be	Cd	Co	Cr	Cu
Avg	1.830	5.809	7.653	71.18	2.191	2.829	1.605
Dev	.010	.027	.038	.47	.013	.015	.007
%RSD	.5626	.4609	.5019	.6556	.5976	.5350	.4364
#1	1.824	5.800	7.626	70.85	2.182	2.820	1.603
#2	1.824	5.788	7.636	70.98	2.185	2.821	1.599
#3	1.842	5.839	7.697	71.72	2.206	2.847	1.613
Element	Mn	Mo	Ni	Si	Sn	Sr	Ti
Avg	19.55	2.025	2.271	2.377	11.02	11.53	2.244
Dev	.10	.015	.010	.013	.08	.05	.012
%RSD	.5152	.7436	.4606	.5299	.7053	.4317	.5159
#1	19.48	2.013	2.264	2.370	10.98	11.52	2.238
#2	19.50	2.019	2.266	2.369	10.97	11.49	2.237
#3	19.67	2.042	2.283	2.391	11.11	11.59	2.257
Element	V	Zn					
Avg	1.357	5.045					
Dev	.007	.024					
%RSD	.5200	.4662					
#1	1.353	5.029					
#2	1.353	5.034					
#3	1.365	5.072					

Method: CLP1                    Standard: StdFENAL  
Run Time: 10/23/03 08:24:10

	Fe	Na
Avge	46.53	54.48
SDev	.16	.24
%RSD	.3470	.4427
#1	46.69	54.49
#2	46.53	54.23
#3	46.37	54.71

Method: CLP1                    Standard: StdNAKH  
Run Time: 10/23/03 08:31:03

	K	Na
Avge	11.01	2.472
SDev	.03	.009
%RSD	.2565	.3736
#1	11.01	2.475
#2	11.04	2.480
#3	10.98	2.462

Method: CLP1

Slope = Conc(SIR)/IR

Element	Wavelength	High std	Low std	Slope	Y-intercept	Date Standardized
Ag	328.068	StdAGSBH	StdBLANK	2469.87	10.4507	10/23/03 08:31:03
Zn	308.215	StdICSH	StdBLANK	14.0998	-.076691	10/23/03 08:31:03
Bs1890	189.042	StdFURNH	StdBLANK	754.038	-2.56053	10/23/03 08:31:03
B	249.678	StdMULTH	StdBLANK	2.73866	-.003225	10/23/03 08:31:03
Ba	493.409	StdMULTH	StdBLANK	.860734	-.000118	10/23/03 08:31:03
Be	313.042	StdMULTH	StdBLANK	.653369	.000744	10/23/03 08:31:03
Cd	317.933	StdICSH	StdBLANK	.810072	.002096	10/23/03 08:31:03
Cd	226.502	StdMULTH	StdBLANK	.070231	.000133	10/23/03 08:31:03
Co	228.616	StdMULTH	StdBLANK	2.28208	.000347	10/23/03 08:31:03
Cr	267.716	StdMULTH	StdBLANK	1.76766	-.000134	10/23/03 08:31:03
Cu	324.754	StdMULTH	StdBLANK	3.12094	-.010835	10/23/03 08:31:03
Fe	271.441	StdICSH	StdBLANK	.852186	.000029	10/23/03 08:31:03
Fe	259.940	StdFENAL	StdBLANK	.107506	-.001948	10/23/03 08:31:03
K	766.491	StdNAKH	StdBLANK	.726603	.001520	10/23/03 08:31:03
Mg	279.079	StdICSH	StdBLANK	.782308	.000400	10/23/03 08:31:03
Mn	257.610	StdMULTH	StdBLANK	.255770	-.000093	10/23/03 08:31:03
Mn	202.030	StdMULTH	StdBLANK	2.46974	-.000225	10/23/03 08:31:03
Na	330.232	StdNAKH	StdBLANK	.807185	-.007869	10/23/03 08:31:03
Ni	588.995	StdFENAL	StdBLANK	.092718	-.051268	10/23/03 08:31:03
Ni	231.604	StdMULTH	StdBLANK	2.20136	-.000502	10/23/03 08:31:03
2203/1	220.351	StdFURNH	StdBLANK	206.892	-4.99229	10/23/03 08:31:03
2203/2	220.352	StdFURNH	StdBLANK	497.978	-.234576	10/23/03 08:31:03
2068/1	206.831	StdAGSBH	StdBLANK	630.177	1.40216	10/23/03 08:31:03
2068/2	206.832	StdAGSBH	StdBLANK	977.969	-.260323	10/23/03 08:31:03
1960/1	196.021	StdFURNH	StdBLANK	1087.16	11.3151	10/23/03 08:31:03
1960/2	196.022	StdFURNH	StdBLANK	1493.73	-3.15501	10/23/03 08:31:03
S	288.158	StdMULTH	StdBLANK	2.12093	-.040483	10/23/03 08:31:03
Sn	189.989	StdMULTH	StdBLANK	.453844	-.001837	10/23/03 08:31:03
Sr	421.552	StdMULTH	StdBLANK	.433618	-.000056	10/23/03 08:31:03
Ti	334.941	StdMULTH	StdBLANK	2.22832	-.000068	10/23/03 08:31:03
Ti1908	190.864	StdFURNH	StdBLANK	862.163	4.21790	10/23/03 08:31:03
V	292.402	StdMULTH	StdBLANK	3.68415	-.000168	10/23/03 08:31:03
Zn	213.856	StdMULTH	StdBLANK	.991272	-.001039	10/23/03 08:31:03
Pb2203	220.353	NONE	NONE	1.00000	.000000	*NOT STANDARDIZED
Sb2068	206.838	NONE	NONE	1.00000	.000000	*NOT STANDARDIZED
Sr1960	196.026	NONE	NONE	1.00000	.000000	*NOT STANDARDIZED

Method: CLP1

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al	328.068	StdBLANK	.000000	-.000000	.000000
		StdAGSBH	2000.00	2000.00	.000000
Zn	308.215	StdBLANK	.000000	-.000000	.000000
		StdICSH	500.000	500.000	.000000
As1890	189.042	StdBLANK	.000000	.000000	-.000000
		StdFURNH	1000.00	1000.00	.000000
Pb	249.678	StdBLANK	.000000	-.000000	.000000
		StdMULTH	5.00000	5.00840	-.008400
Ba	493.409	StdBLANK	.000000	.000000	-.000000
		StdMULTH	5.00000	5.00000	.000000
Bi	313.042	StdBLANK	.000000	.000000	-.000000
		StdMULTH	5.00000	5.00095	-.000950
Ca	317.933	StdBLANK	.007782	.007019	.000763
		StdICSH	48.9123	60.3777	-11.4653
Cd	226.502	StdBLANK	.000000	-.000000	.000000
		StdMULTH	5.00000	4.99930	.000700
Co	228.616	StdBLANK	.000000	-.000000	.000000
		StdMULTH	5.00000	5.00000	.000000
Cr	267.716	StdBLANK	.000000	-.000000	.000000
		StdMULTH	5.00000	5.00108	-.001080
Cu	324.754	StdBLANK	.000000	-.000000	.000000
		StdMULTH	5.00000	4.99875	.001245

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Element	Wavelength	Standard	Known Signal	Measured Signal	Residual Signal
	271.441	StdBLANK StdICSH	.000055 .602976	.000030 .707531	.000024 -.104554
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe	259.940	StdBLANK StdFENAL	.000000 5.00000	-.000000 5.00000	.000000 .000000
Element	Wavelength	Standard	Known Signal	Measured Signal	Residual Signal
K	766.491	StdBLANK StdNAKH	.006759 8.00205	.007209 11.0109	-.000451 -3.00882
Element	Wavelength	Standard	Known Signal	Measured Signal	Residual Signal
Mg	279.079	StdBLANK StdICSH	.000584 62.6316	.000236 80.0595	.000349 -17.4279
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
M	257.610	StdBLANK StdMULTH	.000000 5.00000	.000000 5.00000	-.000000 .000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo	202.030	StdBLANK StdMULTH	.000000 5.00000	.000000 5.00000	-.000000 .000000
Element	Wavelength	Standard	Known Signal	Measured Signal	Residual Signal
N	330.232	StdBLANK StdNAKH	-.028601 1.98779	-.025685 2.47236	-.002916 -.484578
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na	588.995	StdBLANK StdFENAL	.000000 5.00000	.000000 5.00000	-.000000 .000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni	231.604	StdBLANK StdMULTH	.000000 5.00000	.000000 4.99790	-.000000 .002100
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2203/1	220.351	StdBLANK StdFURNH	.000000 1000.00	.000000 1000.000	-.000000 .000061
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2203/2	220.352	StdBLANK StdFURNH	.000000 1000.00	.000000 1000.00	-.000000 .000000

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Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2068/1	206.831	StdBLANK StdAGSBH	.000000 2000.00	.000000 2000.00	-.000000 .000000
2068/2	206.832	StdBLANK StdAGSBH	.000000 2000.00	.000000 2000.00	-.000000 .000000
1960/1	196.021	StdBLANK StdFURNH	.000000 1000.00	-.000000 1000.000	.000000 .000061
1960/2	196.022	StdBLANK StdFURNH	.000000 1000.00	.000000 1000.00	-.000000 .000000
288.158	288.158	StdBLANK StdMULTH	Known Signal .039723 5.00000	Measured Signal .037816 2.37654	Residual Signal .001906 2.62346
189.989	189.989	StdBLANK StdMULTH	Known Concentration .000000 5.00000	Measured Concentration .000000 4.99870	Residual Concentration -.000000 .001300
421.552	421.552	StdBLANK StdMULTH	Known Concentration .000000 5.00000	Measured Concentration .000000 5.00000	Residual Concentration -.000000 .000000
334.941	334.941	StdBLANK StdMULTH	Known Concentration .000000 5.00000	Measured Concentration -.000000 5.00000	Residual Concentration .000000 .000000
190.864	190.864	StdBLANK StdFURNH	Known Concentration .000000 1000.00	Measured Concentration -.000000 1000.00	Residual Concentration .000000 .000000
292.402	292.402	StdBLANK StdMULTH	Known Concentration .000000 5.00000	Measured Concentration -.000000 5.00000	Residual Concentration .000000 .000000
213.856	213.856	StdBLANK StdMULTH	Known Concentration .000000 5.00000	Measured Concentration .000000 5.00000	Residual Concentration -.000000 .000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb203	220.353	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000
Sb2068	206.838	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000
Sb1960	196.026	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000

Method: CLP1 Sample Name: ICV

Operator: MMR

Run Time: 10/23/03 08:37:10

Comment:

Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	983.11	51.18	481.61	2.444	2.508	2.515	51.59
SDev	5.56	.38	2.88	.012	.013	.009	.20
%RSD	.56604	.7502	.59874	.4971	.5145	.3688	.3946
#1	987.27	51.49	478.74	2.452	2.515	2.516	51.66
#2	985.27	51.29	484.51	2.450	2.517	2.524	51.76
#3	976.79	50.75	481.57	2.430	2.494	2.506	51.37
Errors	LC Pass						
High	1100.0	55.00	550.00	2.750	2.750	2.750	55.00
Low	900.00	45.00	450.00	2.250	2.250	2.250	45.00

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	2.511	2.476	2.499	2.514	49.43	82.66	51.62
SDev	.009	.011	.010	.021	.16	.89	.26
%RSD	.3523	.4539	.4141	.8179	.3173	1.072	.4986
#1	2.503	2.480	2.501	2.530	49.40	83.47	51.73
#2	2.520	2.485	2.508	2.521	49.61	82.80	51.79
#3	2.511	2.463	2.487	2.491	49.30	81.72	51.32
Errors	LC Pass						
High	2.750	2.750	2.750	2.750	55.00	88.00	55.00
Low	2.250	2.250	2.250	2.250	45.00	72.00	45.00

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.487	2.523	80.78	2.503	490.99	487.43	1034.5
SDev	.011	.011	1.12	.008	4.23	1.72	1.7
%RSD	.4295	.4547	1.381	.3196	.86106	.35313	.16436
#1	2.490	2.513	81.86	2.496	492.08	489.02	1036.5
#2	2.496	2.536	80.86	2.512	494.57	485.61	1033.7
#3	2.476	2.521	79.63	2.501	486.32	487.67	1033.4
Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	2.750		88.00	2.750			
Low	2.250		72.00	2.250			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	1017.0	498.09	491.78	2.139	2.477	2.460	2.514
SDev	8.1	3.45	1.67	.015	.014	.016	.010
%RSD	.80070	.69278	.33928	.6799	.5622	.6455	.3973
#1	1020.9	499.57	492.08	2.150	2.482	2.468	2.514
#2	1022.6	500.55	493.27	2.144	2.488	2.470	2.524
#3	1007.7	494.14	489.98	2.122	2.461	2.442	2.504
Errors	NOCHECK						

VHBNY004 M59

High

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	482.86	2.496	2.596	488.62	1022.9	493.88
Dev	3.07	.011	.012	1.41	5.7	2.25
RSD	.63584	.4383	.4750	.28864	.55949	.45518

#1	484.19	2.499	2.602	490.04	1026.1	494.58
#2	485.05	2.505	2.605	488.59	1026.3	495.70
#3	479.35	2.484	2.582	487.22	1016.3	491.37

Errors	LC Pass					
High	550.00	2.750	2.750	550.00	1100.0	550.00
Low	450.00	2.250	2.250	450.00	900.00	450.00

Method: CLP1 Sample Name: ICB  
Run Time: 10/23/03 08:46:24  
Concentration:  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	.56660	.0196	-.50120	.0040	.0008	.0008	.0485
Dev	.04130	.0026	1.36241	.0003	.0002	.0001	.0032
%RSD	7.2897	13.01	271.83	7.296	20.55	17.67	6.692
#1	.59345	.0224	1.0642	.0043	.0009	.0009	.0519
#2	.51904	.0189	-1.4193	.0038	.0008	.0007	.0483
#3	.58731	.0175	-1.1485	.0038	.0006	.0006	.0454
Errors	LC Pass						
High	10.000	.2000	10.000	.2000	.2000	.0050	.2000
Low	-10.000	-.2000	-10.000	-.2000	-.2000	-.0050	-.2000

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0009	.0011	.0010	.0010	.0150	.0779	.0155
Dev	.0002	.0002	.0003	.0003	.0024	.0159	.0032
%RSD	21.91	16.31	27.02	32.12	15.69	20.37	20.68
#1	.0011	.0009	.0011	.0013	.0174	.0945	.0179
#2	.0009	.0013	.0012	.0011	.0149	.0761	.0168
#3	.0007	.0011	.0007	.0006	.0127	.0630	.0119
Errors	LC Pass						
High	.0050	.0500	.0100	.0250	.1000	5.000	.2000
Low	-.0050	-.0500	-.0100	-.0250	-.1000	-5.000	-.2000

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.0009	.0098	.0467	.0011	-.77584	1.7135	1.8859
SDev	.0001	.0024	.0137	.0001	.70997	.7192	1.3260
%RSD	15.52	24.77	29.36	11.85	91.511	41.969	70.311
#1	.0010	.0124	.0618	.0010	-1.5801	2.3776	2.2299
#2	.0009	.0094	.0434	.0010	-.51143	.94972	3.0060
#3	.0007	.0076	.0350	.0012	-.23600	1.8133	.42182
Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	.0150		5.000	.0400			
Low	-.0150		-5.000	-.0400			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	-1.0706	1.0499	2.1471	.0398	.0013	.0008	.0010
SDev	.3332	1.3952	1.6538	.0006	.0009	.0002	.0002
%RSD	31.126	132.89	77.024	1.455	71.53	21.98	19.64
#1	-1.1329	2.5379	2.7045	.0405	.0003	.0010	.0012
#2	-.71065	-.22882	.28664	.0395	.0021	.0008	.0010
#3	-1.3683	.84057	3.4503	.0395	.0015	.0006	.0008
Errors	NOCHECK						

VHBNY004 M61

High

Item	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	1.4234	.0010	.0008	.88462	-.08610	1.7817
Dev	.5486	.0002	.0001	.36669	.65268	1.4439
RSD	38.540	22.39	6.668	41.451	758.01	81.036

#1	1.6435	.0013	.0008	1.0597	-.01309	2.6490
#2	1.8277	.0008	.0007	.46320	.52700	.11499
#3	.79894	.0009	.0007	1.1309	-.77222	2.5812

Errors	LC Pass					
High	10.000	.0500	.0200	3.0000	60.000	5.0000
Low	-10.000	-.0500	-.0200	-3.0000	-60.000	-5.0000

Method: CLP1 Sample Name: CRII  
Run Time: 10/23/03 08:55:37  
Concentration:  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	19.877	.0141	16.954	.1968	.0002	.0105	.0278
Dev	.279	.0018	.882	.0003	.0001	.0001	.0027
%RSD	1.4030	12.94	5.2045	.1471	57.74	.5876	9.558

#1	19.820	.0126	17.930	.1967	.0003	.0106	.0307
#2	19.631	.0161	16.718	.1971	.0002	.0105	.0270
#3	20.180	.0136	16.213	.1966	.0001	.0105	.0256

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0107	.1023	.0210	.0501	.0037	.0535	.0073
Dev	.0002	.0001	.0002	.0004	.0014	.0074	.0032
%RSD	1.735	.1477	.9975	.7802	39.56	13.88	43.68

#1	.0108	.1022	.0208	.0503	.0053	.0615	.0109
#2	.0108	.1025	.0212	.0503	.0030	.0523	.0062
#3	.0105	.1023	.0210	.0496	.0026	.0467	.0048

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.0309	.0260	.0251	.0834	6.5516	5.5898	116.85
Dev	.0001	.0003	.0054	.0003	.8463	1.5502	4.26
%RSD	.4718	1.347	21.69	.3665	12.918	27.732	3.6456

#1	.0310	.0263	.0313	.0833	7.1782	5.7921	112.49
#2	.0309	.0261	.0229	.0837	5.5888	3.9485	117.04
#3	.0307	.0256	.0211	.0831	6.8876	7.0290	121.00

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	119.29	13.455	10.824	.1464	.0817	.0002	.2064
Dev	1.97	3.848	1.289	.0005	.0008	.0001	.0005
%RSD	1.6550	28.598	11.912	.3282	1.032	48.06	.2446

#1	117.71	13.458	11.637	.1467	.0822	.0003	.2058
#2	118.66	17.300	9.3375	.1466	.0807	.0002	.2066
#3	121.50	9.6049	11.498	.1459	.0822	.0001	.2068

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	19.490	.1014	.0429	5.9101	118.48	11.700
Dev	.902	.0003	.0001	1.2787	2.70	.732
%RSD	4.6260	.2777	.2537	21.636	2.2792	6.2588

#1	19.518	.1011	.0429	6.2536	115.97	12.244
#2	18.575	.1015	.0431	4.4947	118.12	11.989
#3	20.377	.1017	.0429	6.9819	121.34	10.867

VHBNY004 M63

Method: CLP1 Sample Name: ICSAI  
Run Time: 10/23/03 09:04:50  
Element:  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	.37037	498.7	-5.7641	.0050	.0014	.0003	502.5
SDev	.20739	.2	2.9173	.0002	.0001	.0000	1.5
%RSD	55.997	.0470	50.611	3.268	5.506	2.874	.2952
#1	.25558	498.9	-8.3464	.0050	.0013	.0003	500.8
#2	.24574	498.5	-6.3461	.0048	.0015	.0003	503.3
#3	.60978	498.5	-2.5996	.0052	.0014	.0003	503.5
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	10.000	600.0			.2000	.0050	600.0
Low	-10.000	400.0			-.2000	-.0050	400.0

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	-.0007	.0001	-.0001	.0058	200.3	.0571	499.8
SDev	.0002	.0004	.0005	.0001	.5	.0050	1.2
%RSD	30.57	291.8	356.8	1.909	.2675	8.775	.2412
#1	-.0008	-.0003	-.0007	.0057	199.7	.0518	498.4
#2	-.0004	.0005	-.0000	.0059	200.4	.0617	500.3
#3	-.0008	.0002	.0003	.0057	200.7	.0577	500.7
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass
High	.0050		.0100		240.0		600.0
Low	-.0050		-.0100		160.0		400.0

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.0009	-.0034	.0354	.0025	-12.569	6.5816	-.74158
SDev	.0001	.0006	.0006	.0004	4.528	2.2764	7.94315
%RSD	10.40	18.81	1.690	15.31	36.027	34.587	1071.1
#1	.0008	-.0035	.0360	.0021	-17.079	8.6834	8.1692
#2	.0010	-.0040	.0355	.0025	-8.0226	4.1637	-7.0791
#3	.0010	-.0027	.0348	.0029	-12.607	6.8979	-3.3148
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	.0150			.0400			
Low	-.0150			-.0400			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	5.9465	3.7990	2.8297	.0574	.0430	-.3267	.0030
SDev	5.6838	8.1343	3.4862	.0009	.0020	.0009	.0001
%RSD	95.583	214.11	123.20	1.609	4.714	.2793	3.902
#1	-.60565	-4.5296	6.6370	.0570	.0406	-.3277	.0028
#2	9.5512	11.724	2.0584	.0585	.0443	-.3265	.0031
#3	8.8940	4.2028	-.20628	.0568	.0439	-.3259	.0030
Errors	NOCHECK						

VHBNY004 M64

Method: CLP1 Sample Name: ICSABI

Operator: MMR

Run Time: 10/23/03 09:14:09

Comment:

Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	1061.6	492.9	1008.5	.9374	.5195	.5077	501.2
Dev	1.2	.5	4.2	.0017	.0002	.0022	1.8
%RSD	.10844	.0943	.42033	.1825	.0340	.4242	.3629
#1	1061.5	492.8	1011.7	.9377	.5197	.5094	502.8
#2	1060.6	492.5	1010.0	.9389	.5193	.5084	501.6
#3	1062.8	493.4	1003.7	.9355	.5195	.5052	499.2
Errors	LC Pass						
High	1200.0	600.0	1200.0	1.200	.6000	.6000	600.0
Low	800.00	400.0	800.00	.8000	.4000	.4000	400.0

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.9717	.4833	.4890	.5455	200.3	.0510	497.5
Dev	.0059	.0018	.0015	.0009	.9	.0040	1.2
%RSD	.6091	.3696	.3000	.1615	.4291	7.750	.2424
#1	.9763	.4853	.4904	.5449	200.9	.0552	498.6
#2	.9737	.4830	.4890	.5450	200.6	.0506	497.6
#3	.9650	.4817	.4875	.5465	199.3	.0473	496.2
Errors	LC Pass	NOCHECK	LC Pass				
High	1.200	.6000	.6000	.6000	240.0		600.0
Low	.8000	.4000	.4000	.4000	160.0		400.0

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.4959	1.030	.0378	.9661	958.83	975.22	-6.4610
SDev	.0014	.003	.0003	.0043	8.10	2.65	.2675
%RSD	.2792	.3289	.9082	.4434	.84508	.27210	4.1402
#1	.4972	1.026	.0374	.9696	967.77	974.48	-6.1842
#2	.4959	1.033	.0379	.9673	951.96	978.17	-6.7181
#3	.4944	1.030	.0380	.9613	956.77	973.03	-6.4807
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	.6000			1.200			
Low	.4000			.8000			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	-5.2046	989.95	988.37	.5899	1.045	-.3201	.0023
SDev	3.6215	7.54	3.29	.0015	.006	.0008	.0002
%RSD	69.584	.76128	.33247	.2468	.5973	.2355	7.897
#1	-1.6336	998.46	986.73	.5884	1.050	-.3210	.0024
#2	-8.8746	987.30	992.15	.5913	1.046	-.3195	.0024
#3	-5.1056	984.10	986.22	.5901	1.038	-.3199	.0021
Errors	NOCHECK						

VHBNY004 M66

High

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	969.07	.4973	1.069	969.77	-5.6230	988.90
SD	2.18	.0014	.002	2.33	2.5043	2.93
RSD	.22474	.2728	.1903	.24050	44.537	.29611

#1	971.35	.4983	1.070	972.24	-3.1489	990.64
#2	968.87	.4978	1.070	969.44	-8.1565	990.53
#3	967.00	.4958	1.067	967.61	-5.5635	985.52

Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass
High	1200.0	.6000	1.200	1200.0		1200.0
Low	800.00	.4000	.8000	800.00		800.00

Method: CLP1 Sample Name: CCV1  
Run Time: 10/23/03 09:23:24  
Comment:  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	989.90	51.43	480.10	2.448	2.508	2.501	51.29
SDev	3.01	.22	1.99	.009	.008	.007	.15
%RSD	.30375	.4183	.41448	.3598	.3337	.2726	.3007
#1	992.50	51.61	477.96	2.453	2.516	2.503	51.35
#2	986.60	51.19	480.46	2.438	2.499	2.493	51.12
#3	990.59	51.47	481.89	2.453	2.510	2.506	51.41
Errors	LC Pass						
High	1100.0	55.00	550.00	2.750	2.750	2.750	55.00
Low	900.00	45.00	450.00	2.250	2.250	2.250	45.00

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	2.485	2.456	2.490	2.527	49.21	83.79	51.47
SDev	.008	.007	.006	.010	.17	.46	.17
%RSD	.3282	.2821	.2562	.3844	.3403	.5460	.3225
#1	2.488	2.458	2.494	2.536	49.28	84.28	51.57
#2	2.476	2.448	2.482	2.517	49.01	83.37	51.28
#3	2.491	2.462	2.493	2.528	49.32	83.71	51.55
Errors	LC Pass						
High	2.750	2.750	2.750	2.750	55.00	88.00	55.00
Low	2.250	2.250	2.250	2.250	45.00	72.00	45.00

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.478	2.510	81.96	2.481	485.29	486.35	1035.4
SDev	.007	.009	.07	.008	1.09	.63	2.7
%RSD	.2835	.3551	.0898	.3370	.22445	.12918	.25902
#1	2.482	2.507	82.01	2.485	484.51	486.65	1037.7
#2	2.470	2.504	82.00	2.471	486.54	485.62	1032.5
#3	2.482	2.520	81.88	2.487	484.83	486.76	1036.0
Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	2.750		88.00	2.750			
Low	2.250		72.00	2.250			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	1015.6	495.40	493.21	2.149	2.439	2.460	2.514
SDev	4.0	3.97	1.32	.007	.003	.009	.008
%RSD	.39591	.80209	.26845	.3348	.1273	.3604	.3314
#1	1014.5	490.84	494.68	2.156	2.440	2.468	2.520
#2	1012.3	498.05	492.85	2.141	2.436	2.451	2.505
#3	1020.1	497.33	492.11	2.149	2.442	2.462	2.519
Errors	NOCHECK						

VHBNY004 M68

High

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	479.02	2.488	2.595	486.00	1022.2	493.94
SD	2.98	.008	.008	.11	3.2	.60
RSD	.62260	.3281	.2927	.02196	.31208	.12060

#1	480.54	2.493	2.600	485.94	1022.2	493.40
#2	475.58	2.479	2.586	485.93	1019.0	494.58
#3	480.94	2.493	2.598	486.12	1025.4	493.85

Errors	LC Pass					
High	550.00	2.750	2.750	550.00	1100.0	550.00
Low	450.00	2.250	2.250	450.00	900.00	450.00

Method: CLP1 Sample Name: CCB1  
Run Time: 10/23/03 09:32:37  
Comment:  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	.51588	.0517	-1.2901	.0032	.0006	.0006	.0725
SDev	.19054	.0128	.1873	.0005	.0003	.0002	.0178
%RSD	36.934	24.84	14.517	15.64	44.64	32.89	24.54
#1	.68294	.0602	-1.3716	.0035	.0008	.0008	.0871
#2	.30836	.0579	-1.4228	.0033	.0006	.0006	.0777
#3	.55633	.0369	-1.0759	.0026	.0003	.0004	.0527
Errors	LC Pass						
High	10.000	.2000	10.000	.2000	.2000	.0050	.2000
Low	-10.000	-.2000	-10.000	-.2000	-.2000	-.0050	-.2000

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0007	.0010	.0007	.0004	.0228	.0627	.0408
SDev	.0002	.0004	.0003	.0002	.0075	.0115	.0180
%RSD	33.41	37.74	41.95	50.89	32.91	18.30	44.20
#1	.0009	.0014	.0010	.0006	.0288	.0726	.0549
#2	.0008	.0011	.0005	.0004	.0253	.0654	.0470
#3	.0005	.0006	.0005	.0002	.0144	.0501	.0205
Errors	LC Pass						
High	.0050	.0500	.0100	.0250	.1000	5.000	.2000
Low	-.0050	-.0500	-.0100	-.0250	-.1000	-5.000	-.2000

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.0007	.0095	.0329	.0009	-.67772	.39335	1.3270
SDev	.0003	.0027	.0100	.0006	1.54085	1.3657	1.9759
%RSD	43.55	28.92	30.33	61.30	227.36	347.19	148.90
#1	.0009	.0125	.0432	.0014	.82922	-.86392	-.46334
#2	.0008	.0089	.0323	.0011	-.61200	.19765	.99723
#3	.0004	.0071	.0233	.0003	-2.2504	1.8463	3.4470
Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	.0150		5.000	.0400			
Low	-.0150		-5.000	-.0400			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	1.5283	3.3887	2.8987	.0398	.0005	.0006	.0008
SDev	.8447	1.0108	1.9320	.0003	.0001	.0002	.0004
%RSD	55.271	29.829	66.649	.7647	16.68	38.50	45.87
#1	.55829	4.3818	4.7433	.0396	.0005	.0008	.0011
#2	2.1018	3.4233	.88988	.0401	.0004	.0006	.0009
#3	1.9249	2.3611	3.0628	.0396	.0006	.0003	.0004
Errors	NOCHECK						

VHBNY004 M70

High

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	.57781	.0007	.0004	.03673	1.4613	3.0619
SD	.77774	.0001	.0003	.40228	1.1317	1.4587
RSD	134.60	10.67	69.16	1095.2	77.448	47.641
#1	.05247	.0007	.0006	-.30006	.21811	4.6229
#2	1.4713	.0008	.0004	-.07192	1.7340	1.7335
#3	.20969	.0007	.0001	.48217	2.4318	2.8292
Errors	LC Pass					
High	10.000	.0500	.0200	3.0000	60.000	5.0000
Low	-10.000	-.0500	-.0200	-3.0000	-60.000	-5.0000

Analysis Report

10/23/03 09:50:58 AM

page 1

Method: CLP1 Sample Name: MB-8429  
Run Time: 10/23/03 09:41:51  
Client: *row 10/22/03 KEYVHBNY004*  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	-.02130	.0167	-3.5565	.0082	.0001	.0001	.0358
Dev	.15465	.0047	1.6066	.0003	.0000	.0000	.0054
%RSD	726.15	28.14	45.174	3.111	24.55	39.70	15.09
#1	.03794	.0220	-5.2570	.0081	.0001	.0001	.0420
#2	-.19681	.0129	-3.3482	.0085	.0001	.0001	.0323
#3	.09498	.0152	-2.0642	.0080	.0001	.0001	.0330
Errors	LC Pass						
High	10.000	.2000	10.000	.2000	.2000	.0050	.2000
Low	-10.000	-.2000	-10.000	-.2000	-.2000	-.0050	-.2000
Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0002	.0004	.0005	.0017	.0068	.0412	.0097
Dev	.0001	.0003	.0003	.0001	.0022	.0044	.0041
%RSD	44.66	68.75	64.51	5.955	33.14	10.76	42.49
#1	.0002	.0006	.0005	.0016	.0093	.0375	.0137
#2	.0001	.0001	.0002	.0016	.0054	.0400	.0055
#3	.0002	.0006	.0009	.0018	.0055	.0461	.0098
Errors	LC Pass						
High	.0050	.0500	.0100	.0250	.1000	5.000	.2000
Low	-.0050	-.0500	-.0100	-.0250	-.1000	-5.000	-.2000
Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.0001	.0016	.0177	.0021	.05221	-.16667	-1.3855
SDev	.0001	.0004	.0014	.0003	2.3579	1.03611	2.6619
%RSD	81.04	24.34	7.927	12.58	4516.2	621.64	192.12
#1	.0001	.0020	.0193	.0018	-2.6603	.95719	1.6803
#2	.0000	.0017	.0174	.0020	1.6125	-1.0839	-2.7281
#3	.0003	.0012	.0165	.0023	1.2044	-.37333	-3.1087
Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	.0150		5.000	.0400			
Low	-.0150		-5.000	-.0400			
Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	.80034	5.1869	.68139	.0628	-.0009	.0001	.0002
SDev	1.4787	1.2336	1.3068	.0002	.0006	.0000	.0001
%RSD	184.76	23.783	191.79	.3155	71.32	73.46	54.49
#1	-.19772	3.9944	2.1863	.0630	-.0009	.0000	.0002
#2	2.4991	6.4578	-.16765	.0627	-.0003	.0000	.0001
#3	.09961	5.1084	.02557	.0626	-.0016	.0001	.0003
Errors	NOCHECK						

VHBNY004 M72

High

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	.71469	.0000	.0042	-.09374	.07247	2.1817
SD	1.1306	.0003	.0001	.21511	.91674	.5493
RSD	158.19	1387.	1.404	229.47	1265.0	25.176

#1	-.13667	-.0000	.0043	-.24738	.42768	2.7884
#2	1.9975	-.0003	.0041	-.18594	.75845	2.0386
#3	.28327	.0003	.0042	.15210	-.96873	1.7181

Errors	LC Pass					
High	10.000	.0500	.0200	3.0000	60.000	5.0000
Low	-10.000	-.0500	-.0200	-3.0000	-60.000	-5.0000

VHBNY004 M73

Analysis Report

10/23/03 10:00:12 AM

Method: CLP1 Sample Name: LCS-8429  
Run Time: 10/23/03 09:51:05  
Instrument: LCS10 10/22/03 KEYVH@NY001  
Matrix: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	983.11	50.63	465.72	2.260	2.489	2.521	51.03
Dev	3.39	.11	3.18	.008	.011	.018	.34
%RSD	.34468	.2182	.68263	.3738	.4598	.7208	.6674
#1	987.00	50.75	467.89	2.269	2.502	2.540	51.38
#2	981.55	50.62	467.20	2.258	2.485	2.518	50.99
#3	980.78	50.53	462.07	2.252	2.480	2.504	50.71
Errors	LC Pass						
High	1200.0	60.00	600.00	3.000	3.000	3.000	60.00
Low	800.00	40.00	400.00	2.000	2.000	2.000	40.00
Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	2.512	2.442	2.488	2.495	49.00	78.13	50.74
Dev	.021	.018	.016	.009	.30	.17	.34
%RSD	.8196	.7186	.6582	.3647	.6129	.2161	.6708
#1	2.533	2.461	2.506	2.506	49.29	78.32	51.10
#2	2.512	2.439	2.485	2.492	49.01	77.99	50.70
#3	2.491	2.426	2.473	2.489	48.69	78.10	50.42
Errors	LC Pass						
High	3.000	3.000	3.000	3.000	60.00	96.00	60.00
Low	2.000	2.000	2.000	2.000	40.00	64.00	40.00
Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.472	2.538	78.76	2.507	474.51	478.97	1014.5
Dev	.016	.012	.32	.018	3.43	.94	.9
%RSD	.6439	.4908	.4120	.7325	.72254	.19569	.09341
#1	2.490	2.551	78.52	2.526	478.39	479.43	1015.5
#2	2.469	2.536	78.65	2.505	473.25	477.89	1013.6
#3	2.458	2.526	79.13	2.489	471.88	479.59	1014.5
Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	3.000		96.00	3.000			
Low	2.000		64.00	2.000			
Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	1002.7	470.31	470.25	1.490	2.432	2.430	2.524
Dev	5.7	3.84	1.88	.005	.026	.013	.014
%RSD	.57173	.81567	.40005	.3330	1.086	.5349	.5527
#1	1008.8	474.60	468.49	1.495	2.460	2.445	2.539
#2	997.51	469.14	470.02	1.489	2.430	2.424	2.521
#3	1001.7	467.20	472.23	1.485	2.407	2.420	2.511
Errors	NOCHECK						

VHBNY004 M74

High

Low

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avge	474.07	2.476	2.553	477.48	1006.6	470.27
SDev	4.42	.016	.015	1.42	4.1	.47
CRSD	.93280	.6522	.5745	.29843	.41102	.09987

#1	477.66	2.494	2.569	479.08	1011.0	470.52
#2	475.42	2.471	2.549	476.35	1002.9	469.73
#3	469.13	2.462	2.540	477.02	1005.9	470.55

Errors	LC Pass					
High	600.00	3.000	3.000	600.00	1200.0	600.00
Low	400.00	2.000	2.000	400.00	800.00	400.00

Analysis Report

10/23/03 10:09:25 AM

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Method: CLP1 Sample Name: 0310665-016A  
 Run Time: 10/23/03 10:00:18  
 Element: FB  
 Matrix: CONC Corr. Factor: 1

Operator: MMR

Element	Units	Ag	Al	As1890	B	Ba	Be	Ca
Avg	ppb	.18657	.0351	-2.7700	.0171	.0004	.0005	.0677
Dev		.14507	.0029	.5187	.0006	.0001	.0001	.0019
%RSD		77.757	8.239	18.726	3.770	17.97	18.98	2.753
#1		.20369	.0372	-2.2228	.0177	.0005	.0006	.0691
#2		.32233	.0364	-2.8328	.0172	.0003	.0004	.0656
#3		.03370	.0318	-3.2544	.0164	.0004	.0004	.0684
Element	Units	Cd	Co	Cr	Cu	Fe	K	Mg
Avg	ppm	.0005	.0007	.0009	.0002	.0125	.0576	.0120
Dev		.0001	.0002	.0002	.0001	.0019	.0053	.0030
%RSD		20.84	22.68	25.56	60.15	14.94	9.287	25.12
#1		.0006	.0009	.0012	.0003	.0146	.0637	.0143
#2		.0004	.0007	.0008	.0001	.0115	.0548	.0086
#3		.0005	.0006	.0008	.0002	.0113	.0542	.0131
Element	Units	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Avg	ppm	.0006	.0061	.0444	.0010	.35826	.37457	.01291
Dev		.0001	.0018	.0065	.0001	1.8746	.68166	1.49801
%RSD		15.14	29.57	14.60	11.80	523.25	181.99	11608.
#1		.0006	.0081	.0517	.0012	-.05494	.30950	1.4954
#2		.0005	.0056	.0424	.0010	-1.2753	1.0864	-.03375
#3		.0006	.0047	.0392	.0009	2.4050	-.27223	-1.5004
Element	Units	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Avg	ppb	.43538	1.5590	3.6559	.0733	.0014	.0004	.0007
Dev		1.2290	1.9719	1.4885	.0006	.0016	.0001	.0002
%RSD		282.28	126.49	40.715	.8519	113.7	20.52	26.21
#1		.17055	3.8286	5.2528	.0727	.0000	.0005	.0009
#2		-.63959	.26612	3.4078	.0739	.0032	.0004	.0005
#3		1.7752	.58222	2.3070	.0734	.0010	.0004	.0006
Element	Units	Tl1908	V	Zn	Pb2203	Sb2068	Se1960	
Avg	ppb	.23375	.0003	.0034	.36918	.28610	2.9576	
Dev		.81732	.0002	.0000	.22374	.62801	1.6080	
%RSD		349.65	63.66	.4258	60.604	219.51	54.369	
#1		.39491	.0004	.0034	.18818	.61173	4.7786	
#2		.95849	.0004	.0034	.30003	-.43785	2.3616	
#3		-.65214	.0001	.0034	.61933	.68441	1.7327	

VHBNY004 M76

Analysis Report

10/23/03 10:18:38 AM

page 1

Method: CLP1 Sample Name: MB-8428  
 Run Time: 10/23/03 10:09:31  
 Instrument: PDS 10/22/03 KEYVHBM4004  
 Matrix: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	.11989	.0253	-3.6135	.0018	.0010	.0001	.0908
SDev	.01210	.0030	.4833	.0001	.0001	.0000	.0012
%RSD	10.092	11.72	13.375	4.320	6.100	18.79	1.356
#1	.12991	.0224	-3.1475	.0019	.0011	.0001	.0921
#2	.12331	.0253	-4.1125	.0018	.0010	.0001	.0907
#3	.10645	.0283	-3.5804	.0019	.0010	.0001	.0896

Errors	LC Pass						
High	10.000	.2000	10.000	.2000	.2000	.2000	.2000
Low	-10.000	-.2000	-10.000	-.2000	-.2000	-.0050	.2000

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0006	.0019	.0002	.0221	.0726	.0098
SDev	.0001	.0004	.0003	.0004	.0001	.0071	.0022
%RSD	169.9	65.93	13.57	241.6	.3225	9.797	22.88
#1	.0002	.0010	.0021	.0006	.0221	.0799	.0123
#2	.0000	.0006	.0021	.0001	.0220	.0723	.0092
#3	-.0000	.0002	.0016	-.0002	.0220	.0656	.0080

Errors	LC Pass						
High	.0050	.0500	.0100	.0250	.1000	5.000	.2000
Low	-.0050	-.0500	-.0100	-.0250	-.1000	-5.000	-.2000

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.0006	.0028	.0279	.0015	5.6155	.79481	.76008
SDev	.0001	.0003	.0009	.0005	.3577	1.7023	1.2387
%RSD	23.57	11.14	3.360	31.09	6.3692	214.18	162.96
#1	.0007	.0031	.0289	.0017	5.4099	2.1925	.53660
#2	.0007	.0026	.0275	.0018	6.0285	-1.1010	-.35162
#3	.0005	.0026	.0271	.0010	5.4081	1.2929	2.0953

Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	.0150		5.000	.0400			
Low	-.0150		-5.000	-.0400			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	1.1170	-6.7749	2.8375	.0234	.0359	.0001	.0010
SDev	2.5822	.9622	.8770	.0008	.0006	.0001	.0001
%RSD	231.17	14.202	30.906	3.461	1.540	52.28	12.55
#1	2.0398	-6.3625	1.8250	.0229	.0364	.0002	.0011
#2	3.1111	-6.0877	3.3549	.0243	.0359	.0001	.0010
#3	-1.7998	-7.8745	3.3326	.0229	.0353	.0001	.0009

Errors	NOCHECK						
High							
Low							

VHBNY004 M77

High

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avge	-2.8795	.0000	H.0387	2.4001	.99820	-.36343
SDev	2.2123	.0003	.0001	1.0211	1.3166	.55687
SRSD	76.830	1187.	.1467	42.545	131.90	153.23
#1	-2.9794	-.0001	H.0387	H3.2639	1.5392	-.90146
#2	-.61891	-.0002	H.0387	1.2732	1.9581	.21054
#3	-5.0401	.0003	H.0386	2.6633	-.50271	-.39938
Errors	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	10.000	.0500	.0200	3.0000	60.000	5.0000
Low	-10.000	-.0500	-.0200	-3.0000	-60.000	-5.0000

Method: CLP1 Sample Name: LCS-8428 Operator: MMR  
 Run Time: 10/23/03 10:18:50  
 Instrument: L65 10/22/03  
 Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	1221.9	56.92	1197.4	.2772	1.277	.5890	31.19
SD	.8	.13	1.5	.0002	.002	.0002	.01
%RSD	.06679	.2335	.12911	.0623	.1429	.0322	.0275

#1	1222.8	57.07	1199.2	.2773	1.279	.5889	31.19
#2	1221.5	56.86	1196.5	.2771	1.275	.5892	31.20
#3	1221.3	56.83	1196.5	.2770	1.276	.5890	31.18

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	2.074	.3711	.8564	.6161	107.3	17.63	17.57
SD	.005	.0001	.0003	.0009	.1	.05	.02
%RSD	.2235	.0162	.0342	.1540	.1026	.2566	.1133

#1	2.078	.3711	.8560	.6171	107.4	17.67	17.60
#2	2.074	.3711	.8566	.6153	107.4	17.58	17.57
#3	2.069	.3710	.8564	.6158	107.2	17.63	17.56

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.240	.2898	3.082	.7062	591.44	593.02	668.31
SD	.001	.0006	.007	.0015	2.05	1.56	2.45
%RSD	.0248	.2198	.2136	.2064	.34644	.26332	.36620

#1	2.240	.2891	3.089	.7076	593.32	594.70	667.65
#2	2.239	.2903	3.076	.7063	591.74	592.76	671.02
#3	2.239	.2900	3.081	.7047	589.26	591.62	666.26

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	662.20	681.58	689.15	2.859	.6009	.4773	2.896
SD	3.10	1.28	2.22	.023	.0017	.0005	.003
%RSD	.46758	.18795	.32269	.8027	.2812	.1030	.0923

#1	665.13	683.05	688.98	2.841	.5993	.4776	2.899
#2	662.50	680.67	691.46	2.885	.6007	.4768	2.897
#3	658.96	681.03	687.02	2.852	.6027	.4777	2.894

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	984.36	.9396	1.211	592.50	664.23	686.63
SD	.77	.0003	.000	1.71	2.48	1.45
%RSD	.07817	.0294	.0281	.28830	.37333	.21175

#1	985.02	.9392	1.211	594.24	665.97	687.00
#2	984.56	.9398	1.211	592.42	665.33	687.87
#3	983.52	.9397	1.211	590.83	661.39	685.03

VHBNY004 M79

Analysis Report

10/23/03 10:37:12 AM

Method: CLP1 Sample Name: 0310665-012A  
Run Time: 10/23/03 10:28:05  
Element: ~~MS-12A~~  
Matrix: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	4.1676	92.17	115.74	.0287	1.137	.0041	58.68
SD	.1301	.21	1.56	.0001	.001	.0001	.03
%RSD	3.1209	.2262	1.3461	.2722	.0595	1.222	.0494

#1	4.3158	92.12	117.45	.0286	1.137	.0041	58.64
#2	4.0727	91.98	115.39	.0287	1.136	.0040	58.70
#3	4.1142	92.39	114.39	.0287	1.137	.0040	58.69

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0120	.0479	.2160	1.125	140.3	5.673	17.09
SD	.0003	.0003	.0000	.001	.1	.015	.01
%RSD	2.073	.5699	.0067	.1232	.0853	.2704	.0345

#1	.0122	.0482	.2160	1.125	140.1	5.684	17.09
#2	.0121	.0477	.2160	1.123	140.4	5.655	17.09
#3	.0118	.0477	.2160	1.126	140.3	5.679	17.10

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.397	.0094	3.364	.2012	5077.3	5090.5	6.2896
SD	.000	.0008	.015	.0008	8.8	11.6	1.2304
%RSD	.0162	8.162	.4357	.4176	.17242	.22868	19.563

#1	2.397	.0102	3.365	.2010	5085.4	5078.4	5.2756
#2	2.397	.0093	3.348	.2021	5068.0	5101.6	7.6585
#3	2.397	.0087	3.378	.2005	5078.5	5091.4	5.9346

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	9.9729	.24854	7.4837	1.674	.1464	.3495	2.156
SD	.7669	1.4026	1.0691	.015	.0007	.0002	.003
%RSD	7.6899	564.33	14.285	.9160	.4792	.0613	.1283

#1	10.086	-.33680	7.6127	1.680	.1471	.3497	2.157
#2	10.677	-.76656	8.4824	1.686	.1462	.3493	2.158
#3	9.1559	1.8490	6.3559	1.657	.1457	.3496	2.153

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-4.9081	.4735	2.898	5086.1	8.7464	5.0744
SD	2.4632	.0007	.001	4.9	.8263	.2895
%RSD	50.187	.1510	.0492	.09705	9.4471	5.7043

#1	-3.3385	.4730	2.897	5080.7	8.4839	4.9655
#2	-3.6386	.4731	2.899	5090.4	9.6720	5.4025
#3	-7.7471	.4743	2.899	5087.1	8.0832	4.8551

Analysis Report

10/23/03 10:46:25 AM

Method: CLP1 Sample Name: 0310665-012ADUP Operator: MMR
Run Time: 10/23/03 10:37:19
Comment: NGS- 12A DUP
Mode: CONC Corr. Factor: 1

Table with 8 columns: Elem, Units, Ag, Al, As1890, B, Ba, Be, Ca. Rows for Ave, Dev, %RSD and three sample numbers (#1, #2, #3).

Table with 8 columns: Elem, Units, Ag, Al, As1890, B, Ba, Be, Ca. Rows for three sample numbers (#1, #2, #3).

Table with 8 columns: Elem, Units, Cd, Co, Cr, Cu, Fe, K, Mg. Rows for Ave, Dev, %RSD and three sample numbers (#1, #2, #3).

Table with 8 columns: Elem, Units, Cd, Co, Cr, Cu, Fe, K, Mg. Rows for three sample numbers (#1, #2, #3).

Table with 8 columns: Elem, Units, Mn, Mo, Na, Ni, 2203/1, 2203/2, 2068/1. Rows for Ave, Dev, %RSD and three sample numbers (#1, #2, #3).

Table with 8 columns: Elem, Units, Mn, Mo, Na, Ni, 2203/1, 2203/2, 2068/1. Rows for three sample numbers (#1, #2, #3).

Table with 8 columns: Elem, Units, 2068/2, 1960/1, 1960/2, Si, Sn, Sr, Ti. Rows for Ave, Dev, %RSD and three sample numbers (#1, #2, #3).

Table with 8 columns: Elem, Units, 2068/2, 1960/1, 1960/2, Si, Sn, Sr, Ti. Rows for three sample numbers (#1, #2, #3).

Table with 7 columns: Elem, Units, Tl1908, V, Zn, Pb2203, Sb2068, Se1960. Rows for Ave, Dev, %RSD and three sample numbers (#1, #2, #3).

Table with 7 columns: Elem, Units, Tl1908, V, Zn, Pb2203, Sb2068, Se1960. Rows for three sample numbers (#1, #2, #3).

VHBNY004 M81

Method: CLP1 Sample Name: 0310665-012AMS

Operator: MMR

Run Time: 10/23/03 10:46:32

Comment: N55-12A MB

MO CONC Corr. Factor: 1

Item	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	43.597	81.97	134.92	.0322	3.606	.0503	53.42
Dev	.297	.26	.83	.0003	.005	.0002	.31
RSD	.68046	.3125	.61449	.8942	.1484	.4776	.5830

#1	43.350	81.68	135.85	.0319	3.600	.0501	53.06
#2	43.514	82.06	134.63	.0324	3.606	.0505	53.64
#3	43.926	82.17	134.26	.0323	3.611	.0504	53.55

Item	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0580	.5078	.4472	1.458	151.9	7.095	34.95
Dev	.0002	.0024	.0023	.001	1.0	.013	.16
RSD	.2671	.4696	.5070	.0529	.6277	.1854	.4521

#1	.0580	.5051	.4446	1.459	150.8	7.101	34.77
#2	.0582	.5097	.4490	1.457	152.5	7.079	35.07
#3	.0579	.5086	.4478	1.458	152.3	7.103	35.01

Item	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	3.265	.0093	1.026	.6882	5272.5	5276.1	77.696
Dev	.013	.0003	.001	.0047	18.5	52.4	1.813
RSD	.4055	2.873	.0538	.6815	.35182	.99330	2.3336

#1	3.250	.0090	1.026	.6829	5256.7	5222.3	76.891
#2	3.274	.0096	1.025	.6918	5293.0	5327.0	79.772
#3	3.271	.0093	1.026	.6900	5267.9	5279.1	76.424

Item	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	78.559	8.2025	14.794	1.591	.0535	.1247	2.794
Dev	.964	1.1998	.796	.004	.0003	.0001	.016
RSD	1.2270	14.628	5.3781	.2574	.5514	.1095	.5558

#1	78.917	9.2646	15.223	1.596	.0532	.1249	2.776
#2	79.292	8.4418	15.282	1.589	.0535	.1246	2.806
#3	77.467	6.9010	13.876	1.588	.0538	.1247	2.799

Item	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	35.506	.9323	3.623	5274.9	78.271	12.599
Dev	.237	.0025	.013	40.9	1.166	.913
RSD	.66878	.2648	.3586	.77629	1.4902	7.2482

#1	35.426	.9295	3.609	5233.8	78.242	13.239
#2	35.773	.9338	3.634	5315.7	79.452	13.005
#3	35.319	.9336	3.628	5275.4	77.120	11.553

Method: CLP1 Sample Name: 0310665-012ASD Operator: MMR  
 Run Time: 10/23/03 10:55:45  
 Comment: N55-12A 5D  
 Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	1.0229	19.87	22.836	.0067	.2429	.0009	13.04
Dev	.0457	.06	.399	.0004	.0003	.0000	.01
%RSD	4.4665	.3011	1.7482	6.212	.1206	2.292	.0813

#1	1.0454	19.88	23.194	.0063	.2432	.0010	13.03
#2	1.0531	19.81	22.910	.0067	.2426	.0009	13.04
#3	.97035	19.93	22.406	.0071	.2428	.0009	13.05

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0027	.0108	.0470	.2326	29.77	1.093	3.767
Dev	.0001	.0002	.0001	.0005	.01	.002	.007
%RSD	5.741	2.249	.1121	.1999	.0480	.2127	.1811

#1	.0027	.0107	.0469	.2328	29.78	1.092	3.772
#2	.0028	.0111	.0470	.2321	29.75	1.092	3.759
#3	.0025	.0106	.0471	.2330	29.77	1.096	3.770

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.5222	.0028	.6545	.0447	1108.7	1112.9	1.2743
Dev	.0001	.0005	.0032	.0002	3.7	3.0	1.6620
%RSD	.0241	17.90	.4912	.4766	.33124	.27191	130.43

#1	.5222	.0033	.6553	.0445	1105.7	1112.3	2.2223
#2	.5221	.0024	.6510	.0450	1107.5	1110.3	2.2452
#3	.5224	.0025	.6573	.0447	1112.8	1116.2	-.64478

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	1.8278	1.9398	1.5686	.5080	.0308	.0720	.4760
Dev	2.1644	1.2655	.5493	.0080	.0004	.0001	.0021
%RSD	118.41	65.236	35.017	1.573	1.210	.1706	.4484

#1	3.9763	.98355	2.2024	.5142	.0304	.0719	.4784
#2	-.35207	1.4611	1.2743	.4990	.0311	.0720	.4743
#3	1.8593	3.3748	1.2292	.5107	.0308	.0721	.4754

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-2.2615	.1018	.6521	1111.5	1.6435	1.6923
Dev	.7261	.0003	.0001	3.1	1.5360	.3167
%RSD	32.107	.3197	.0224	.27994	93.457	18.715

#1	-2.0576	.1019	.6522	1110.1	3.3922	1.7965
#2	-1.6592	.1020	.6519	1109.4	.51286	1.3366
#3	-3.0677	.1014	.6522	1115.1	1.0254	1.9437

VHBNY004 M83

Method: CLP1 Sample Name: 0310665-013A

Operator: MMR

Run Time: 10/23/03 11:04:59

Element: N55-13A

Matrix: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	1.4844	58.11	28.237	.0222	.5467	.0033	37.83
Dev	.2357	.11	.832	.0002	.0007	.0000	.09
%RSD	15.878	.1929	2.9474	.7512	.1301	.2274	.2473

#1	1.4471	58.02	28.586	.0223	.5459	.0033	37.74
#2	1.7365	58.06	28.838	.0223	.5468	.0032	37.82
#3	1.2696	58.24	27.287	.0220	.5473	.0033	37.92

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0250	.0515	.2920	.8172	120.1	11.70	32.09
Dev	.0001	.0001	.0011	.0011	.3	.02	.07
%RSD	.5285	.1823	.3679	.1351	.2261	.1640	.2191

#1	.0250	.0515	.2909	.8162	119.9	11.70	32.03
#2	.0249	.0515	.2921	.8170	120.1	11.68	32.08
#3	.0251	.0514	.2930	.8183	120.4	11.72	32.17

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.320	.0070	1.167	.1671	2659.3	2669.8	3.8959
Dev	.005	.0003	.001	.0008	3.5	4.1	.7798
%RSD	.2040	4.356	.0566	.4847	.13144	.15488	20.017

#1	2.315	.0072	1.167	.1674	2661.1	2665.3	3.1489
#2	2.320	.0072	1.166	.1677	2655.3	2670.9	4.7049
#3	2.324	.0066	1.168	.1662	2661.6	2673.3	3.8340

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	6.7574	-5.8489	4.5981	1.171	.0527	.0730	2.882
Dev	1.3650	1.3310	.7774	.004	.0008	.0003	.005
%RSD	20.200	22.756	16.907	.3031	1.616	.4428	.1906

#1	6.6716	-4.9277	3.7190	1.173	.0520	.0728	2.877
#2	8.1633	-7.3749	4.8800	1.172	.0537	.0728	2.883
#3	5.4374	-5.2442	5.1951	1.167	.0525	.0733	2.888

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-8.9475	.2375	5.768	2666.3	5.8046	1.1192
Dev	.4174	.0008	.011	2.8	1.0869	.5197
%RSD	4.6654	.3533	.1926	.10646	18.725	46.433

#1	-9.2145	.2367	5.758	2663.9	5.4986	.83970
#2	-9.1616	.2374	5.768	2665.7	7.0117	.79912
#3	-8.4665	.2384	5.780	2669.4	4.9035	1.7189

Method: CLP1 Sample Name: CCV2

Operator: MMR

Run Time: 10/23/03 11:14:13

Comment:

Matrix: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	987.46	51.34	473.64	2.427	2.499	2.485	50.97
SDev	4.82	.22	.95	.011	.014	.012	.21
%RSD	.48782	.4229	.20149	.4462	.5682	.4980	.4170

#1	990.31	51.47	472.72	2.431	2.506	2.494	51.14
#2	990.16	51.46	474.63	2.435	2.508	2.491	51.04
#3	981.89	51.09	473.58	2.414	2.483	2.471	50.73

Errors	LC Pass						
High	1100.0	55.00	550.00	2.750	2.750	2.750	55.00
Low	900.00	45.00	450.00	2.250	2.250	2.250	45.00

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	2.483	2.428	2.474	2.503	49.09	83.44	50.97
SDev	.012	.010	.012	.013	.26	.37	.21
%RSD	.4654	.4115	.4774	.5064	.5368	.4430	.4098

#1	2.492	2.435	2.482	2.509	49.29	83.62	51.13
#2	2.486	2.432	2.480	2.512	49.20	83.69	51.06
#3	2.470	2.417	2.461	2.489	48.79	83.02	50.74

Errors	LC Pass						
High	2.750	2.750	2.750	2.750	55.00	88.00	55.00
Low	2.250	2.250	2.250	2.250	45.00	72.00	45.00

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.465	2.496	81.11	2.483	478.62	481.89	1018.6
SDev	.012	.007	.21	.014	1.74	3.34	7.9
%RSD	.4936	.2952	.2636	.5538	.36365	.69362	.77616

#1	2.473	2.493	81.34	2.494	479.92	485.33	1027.5
#2	2.471	2.505	81.08	2.487	476.65	481.68	1015.7
#3	2.451	2.491	80.92	2.468	479.31	478.66	1012.6

Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	2.750		88.00	2.750			
Low	2.250		72.00	2.250			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	1005.7	492.05	487.52	2.137	2.399	2.444	2.532
SDev	5.8	2.14	1.47	.009	.009	.014	.015
%RSD	.57846	.43548	.30076	.4353	.3916	.5600	.5835

#1	1012.4	494.32	485.96	2.142	2.407	2.450	2.540
#2	1003.5	491.77	487.72	2.142	2.402	2.453	2.541
#3	1001.4	490.06	488.87	2.126	2.389	2.428	2.515

Errors	NOCHECK						
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VHBNY004 M85

High

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avge	461.73	2.471	2.582	480.80	1010.0	489.03
Dev	5.68	.013	.011	2.43	6.5	.26
RSD	1.2309	.5325	.4234	.50513	.64483	.05408

#1	455.18	2.478	2.589	483.53	1017.4	488.74
#2	465.42	2.478	2.587	480.00	1007.6	489.07
#3	464.59	2.455	2.569	478.87	1005.1	489.27

Errors	LC Pass					
High	550.00	2.750	2.750	550.00	1100.0	550.00
Low	450.00	2.250	2.250	450.00	900.00	450.00

Method: CLP1 Sample Name: CCB2  
Run Time: 10/23/03 11:23:28  
Element:  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	.59297	.0450	-2.5980	.0031	.0008	.0008	.0520
SDev	.45672	.0095	.6140	.0009	.0004	.0003	.0084
%RSD	77.023	21.09	23.632	29.28	43.32	38.32	16.13
#1	.94967	.0547	-3.2987	.0038	.0012	.0012	.0609
#2	.75103	.0445	-2.3409	.0034	.0008	.0008	.0511
#3	.07821	.0357	-2.1544	.0021	.0005	.0005	.0442
Errors	LC Pass						
High	10.000	.2000	10.000	.2000	.2000	.0050	.2000
Low	-10.000	-.2000	-10.000	-.2000	-.2000	-.0050	-.2000

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0009	.0010	.0010	.0004	.0240	.0667	.0201
SDev	.0002	.0002	.0004	.0004	.0098	.0122	.0077
%RSD	25.30	19.14	42.93	102.0	40.85	18.29	38.38
#1	.0012	.0010	.0013	.0007	.0342	.0764	.0273
#2	.0008	.0011	.0012	.0004	.0230	.0707	.0209
#3	.0007	.0008	.0005	-.0000	.0147	.0530	.0120
Errors	LC Pass						
High	.0050	.0500	.0100	.0250	.1000	5.000	.2000
Low	-.0050	-.0500	-.0100	-.0250	-.1000	-5.000	-.2000

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.0011	.0082	.0345	.0010	1.1208	1.3171	.91093
SDev	.0004	.0033	.0139	.0004	.9820	.7018	1.5118
%RSD	38.78	40.09	40.30	41.58	87.611	53.279	165.96
#1	.0015	.0119	.0492	.0010	.14956	2.0455	2.1702
#2	.0011	.0073	.0329	.0014	1.0998	1.2606	1.3283
#3	.0007	.0055	.0215	.0006	2.1132	.64537	-.76573
Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	.0150		5.000	.0400			
Low	-.0150		-5.000	-.0400			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	.06100	1.6773	2.0575	.0401	.0015	.0009	.0013
SDev	.02037	.8622	1.0406	.0005	.0005	.0003	.0004
%RSD	33.395	51.404	50.574	1.330	31.82	36.30	35.31
#1	.07865	2.5870	2.4910	.0403	.0020	.0012	.0017
#2	.03871	.87213	2.8114	.0406	.0013	.0008	.0014
#3	.06563	1.5728	.87032	.0395	.0011	.0005	.0008
Errors	NOCHECK						

VHBNY004 M87

High

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	3.2755	.0008	.0011	1.2518	.34402	1.9309
SD	1.6507	.0005	.0005	.1453	.50475	.7379
RSD	50.396	64.29	48.91	11.604	146.72	38.214
#1	4.9970	.0013	.0016	1.4142	.77513	2.5229
#2	3.1234	.0010	.0010	1.2071	.46815	2.1656
#3	1.7061	.0002	.0006	1.1342	-.21122	1.1042

Errors	LC Pass					
High	10.000	.0500	.0200	3.0000	60.000	5.0000
Low	-10.000	-.0500	-.0200	-3.0000	-60.000	-5.0000

Method: CLP1 Sample Name: 0310665-014A  
Run Time: 10/23/03 11:32:42  
Element: NGS-14A  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	1.5466	90.52	52.725	.0313	.5572	.0042	24.69
Dev	.2050	.26	.868	.0001	.0005	.0000	.07
%RSD	13.256	.2820	1.6458	.2000	.0896	.7473	.2922

#1	1.6185	90.32	52.703	.0313	.5570	.0042	24.62
#2	1.3154	90.43	53.603	.0313	.5568	.0042	24.70
#3	1.7061	90.80	51.868	.0312	.5578	.0042	24.76

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0047	.0472	.2058	.4436	116.3	6.732	16.25
Dev	.0001	.0003	.0004	.0006	.3	.011	.05
%RSD	1.332	.5528	.2093	.1305	.2839	.1592	.2921

#1	.0046	.0470	.2054	.4431	115.9	6.728	16.20
#2	.0047	.0475	.2063	.4434	116.3	6.724	16.25
#3	.0048	.0471	.2059	.4442	116.6	6.744	16.30

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	1.759	.0083	.8165	.1818	1114.9	1127.0	1.7884
Dev	.004	.0003	.0016	.0005	5.1	3.8	.9252
%RSD	.1996	4.237	.1975	.2666	.45852	.33578	51.736

#1	1.755	.0087	.8172	.1813	1109.1	1122.6	1.8721
#2	1.759	.0080	.8146	.1821	1118.3	1129.4	.82412
#3	1.763	.0082	.8176	.1821	1117.5	1129.0	2.6689

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	3.2180	-2.8024	6.7016	1.268	.0359	.0931	2.326
Dev	1.5588	.6587	1.1581	.005	.0004	.0001	.004
%RSD	48.439	23.505	17.280	.4270	1.268	.0969	.1699

#1	5.0140	-3.1069	7.6661	1.263	.0354	.0932	2.322
#2	2.2179	-3.2537	7.0215	1.267	.0363	.0930	2.326
#3	2.4220	-2.0465	5.4172	1.273	.0359	.0932	2.330

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-5.8310	.2246	1.439	1123.0	2.7419	3.5368
Dev	.4919	.0006	.002	4.2	1.1260	.5760
%RSD	8.4359	.2839	.1625	.37631	41.064	16.287

#1	-5.9502	.2240	1.437	1118.1	3.9677	4.0787
#2	-5.2904	.2245	1.440	1125.7	1.7538	3.5999
#3	-6.2523	.2253	1.442	1125.2	2.5042	2.9318

VHBNY004 M89

Method: CLP1 Sample Name: 0310665-015A Operator: MMR  
 Run Time: 10/23/03 11:41:55  
 Comment: N35-15A  
 Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	2.3845	42.73	154.60	.0329	.6532	.0021	56.16
Dev	.3820	.14	1.50	.0010	.0025	.0000	.27
%RSD	16.020	.3325	.96792	3.028	.3795	.4772	.4824

#1	2.0081	42.76	156.31	.0326	.6530	.0021	56.20
#2	2.3736	42.85	153.96	.0340	.6558	.0021	56.41
#3	2.7718	42.57	153.53	.0321	.6508	.0021	55.88

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0111	.0337	.2508	.5538	122.4	5.969	29.41
Dev	.0001	.0003	.0007	.0015	.7	.001	.15
%RSD	.6263	.8161	.2803	.2753	.5582	.0244	.5177

#1	.0112	.0338	.2512	.5540	122.5	5.970	29.44
#2	.0111	.0334	.2513	.5552	123.0	5.968	29.54
#3	.0110	.0339	.2500	.5521	121.7	5.970	29.24

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	1.851	.0125	1.029	.1612	2371.0	2396.4	2.7226
Dev	.009	.0003	.003	.0011	2.3	9.0	1.4225
%RSD	.4695	2.460	.2772	.6750	.09657	.37718	52.249

#1	1.852	.0124	1.030	.1619	2368.7	2388.9	3.0625
#2	1.859	.0128	1.032	.1617	2373.3	2406.5	3.9443
#3	1.842	.0122	1.026	.1599	2370.9	2393.9	1.1609

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	3.8268	-2.9608	3.7763	.9781	.0413	.0957	1.771
Dev	2.1905	1.4216	2.6613	.0182	.0013	.0009	.007
%RSD	57.240	48.014	70.473	1.857	3.220	.9074	.3703

#1	1.3350	-1.9187	6.1719	.9668	.0427	.0960	1.768
#2	4.6971	-4.5802	.91172	.9685	.0409	.0964	1.778
#3	5.4485	-2.3834	4.2454	.9991	.0401	.0947	1.766

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-7.5762	.1833	2.747	2387.9	3.4591	1.5329
Dev	.7078	.0006	.011	6.8	1.3582	2.2405
%RSD	9.3419	.3442	.4107	.28369	39.263	146.16

#1	-8.2397	.1833	2.748	2382.2	1.9103	3.4778
#2	-7.6577	.1840	2.758	2395.4	4.4465	-.91709
#3	-6.8312	.1827	2.735	2386.2	4.0207	2.0380

VHBNY004 M90

Method: CLP1 Sample Name: 0310665-001A Operator: MMR  
 Run Time: 10/23/03 11:51:09  
 Comment: NSS-DIA  
 Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	2.7126	49.09	41.694	.0304	1.023	.0027	48.58
Dev	.1354	.13	.460	.0003	.000	.0000	.05
%RSD	4.9916	.2637	1.1025	1.050	.0464	.2276	.0977

#1	2.8593	49.15	42.020	.0305	1.023	.0027	48.62
#2	2.5924	49.18	41.892	.0301	1.022	.0027	48.60
#3	2.6862	48.94	41.168	.0307	1.022	.0027	48.53

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0081	.0473	.3659	.7440	139.1	5.786	23.27
Dev	.0001	.0003	.0005	.0008	.2	.006	.03
%RSD	1.487	.6122	.1336	.1091	.1562	.1017	.1263

#1	.0080	.0471	.3661	.7431	139.3	5.780	23.29
#2	.0082	.0473	.3664	.7447	139.1	5.785	23.28
#3	.0082	.0476	.3654	.7442	138.8	5.792	23.24

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	1.938	.0097	1.015	.1549	6140.9	6175.7	7.9363
Dev	.001	.0005	.001	.0005	4.1	11.9	.4135
%RSD	.0560	4.793	.1330	.2951	.06730	.19245	5.2102

#1	1.939	.0095	1.015	.1552	6144.3	6189.5	7.6481
#2	1.938	.0102	1.017	.1551	6142.1	6168.9	8.4101
#3	1.937	.0094	1.014	.1543	6136.3	6168.8	7.7508

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	9.2642	-1.6284	8.1004	2.080	.1621	.1340	2.149
Dev	1.6000	1.0546	.7652	.004	.0007	.0004	.003
%RSD	17.271	64.762	9.4460	.1768	.4205	.2893	.1211

#1	8.0968	-2.4361	8.7340	2.083	.1622	.1337	2.151
#2	8.6077	-2.0138	7.2503	2.081	.1628	.1339	2.150
#3	11.088	-.43533	8.3170	2.076	.1614	.1345	2.146

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-6.2738	.2699	4.132	6164.1	8.8220	4.8607
Dev	1.2449	.0006	.002	9.0	1.0433	.6327
%RSD	19.843	.2213	.0507	.14540	11.826	13.017

#1	-5.1852	.2706	4.133	6174.4	7.9474	5.0144
#2	-7.6311	.2696	4.133	6160.0	8.5419	4.1654
#3	-6.0049	.2695	4.130	6158.0	9.9767	5.4025

Method: CLP1 Sample Name: 0310665-002A Operator: MMR  
 Run Time: 10/23/03 12:00:23  
 Comment: NSS-02A  
 Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	3.9068	78.42	63.236	.0260	1.090	.0038	28.00
Dev	.2190	.14	.513	.0005	.000	.0000	.10
%RSD	5.6066	.1778	.81104	1.758	.0399	.4780	.3435

#1	4.0405	78.48	63.346	.0255	1.090	.0038	27.91
#2	3.6540	78.26	63.685	.0262	1.090	.0039	27.99
#3	4.0258	78.52	62.677	.0264	1.090	.0038	28.10

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0116	.0550	.2143	.9534	143.1	6.358	17.60
Dev	.0001	.0002	.0007	.0010	.5	.013	.05
%RSD	.8616	.3097	.3231	.1035	.3627	.1983	.2719

#1	.0117	.0548	.2135	.9545	142.6	6.373	17.57
#2	.0116	.0550	.2145	.9525	143.1	6.351	17.58
#3	.0115	.0551	.2148	.9534	143.6	6.351	17.66

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.689	.0077	.5786	.1743	4641.5	4659.8	5.9878
Dev	.007	.0006	.0025	.0010	13.0	25.3	1.4077
%RSD	.2599	7.427	.4264	.5752	.28083	.54252	23.509

#1	2.682	.0083	.5812	.1732	4640.8	4637.5	4.8362
#2	2.689	.0071	.5762	.1744	4628.8	4654.5	5.5702
#3	2.696	.0078	.5783	.1752	4654.8	4687.3	7.5571

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	8.4628	1.9522	9.1410	2.021	.1729	.1101	2.821
Dev	1.9371	1.8122	.5687	.003	.0014	.0000	.003
%RSD	22.890	92.829	6.2215	.1717	.8373	.0090	.1082

#1	10.349	3.5447	9.5046	2.024	.1713	.1101	2.818
#2	8.5605	2.3316	9.4327	2.017	.1731	.1101	2.820
#3	6.4787	-.01967	8.4856	2.022	.1742	.1101	2.824

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-7.8761	.3920	3.383	4653.7	7.6387	6.7471
Dev	.7669	.0008	.008	20.1	.8402	.9738
%RSD	9.7372	.2027	.2273	.43120	11.000	14.433

#1	-7.0009	.3911	3.376	4638.6	8.5134	7.5199
#2	-8.4308	.3923	3.381	4645.9	7.5647	7.0681
#3	-8.1967	.3926	3.391	4676.5	6.8378	5.6533

VHBNY004 M92

Analysis Report

10/23/03 12:18:44 PM

Method: CLP1 Sample Name: 0310665-003A  
Run Time: 10/23/03 12:09:37  
Comment: N35-03A  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	2.8275	72.59	77.876	.0262	.9168	.0033	23.34
Dev	.3115	.06	1.026	.0002	.0004	.0000	.01
%RSD	11.018	.0879	1.3174	.9200	.0435	.5991	.0625
#1	3.1813	72.61	78.520	.0265	.9164	.0033	23.36
#2	2.7066	72.52	76.692	.0262	.9172	.0033	23.33
#3	2.5945	72.64	78.414	.0260	.9168	.0033	23.34

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0040	.0427	.1817	.6930	114.7	5.675	15.03
Dev	.0001	.0001	.0001	.0009	.1	.010	.02
%RSD	1.433	.3220	.0729	.1294	.1227	.1830	.1272
#1	.0040	.0426	.1819	.6925	114.9	5.672	15.04
#2	.0039	.0429	.1817	.6925	114.7	5.667	15.01
#3	.0040	.0426	.1816	.6941	114.6	5.687	15.03

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	1.968	.0079	.4834	.1268	4080.7	4113.8	6.4361
Dev	.001	.0002	.0018	.0007	12.3	5.0	1.8210
%RSD	.0358	2.000	.3780	.5692	.30257	.12253	28.294
#1	1.969	.0080	.4834	.1275	4094.6	4119.3	7.0459
#2	1.967	.0077	.4816	.1268	4076.0	4112.4	4.3885
#3	1.968	.0079	.4853	.1260	4071.3	4109.5	7.8741

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	8.4936	3.9867	8.3998	2.090	.1222	.0781	2.698
Dev	.7116	2.2248	1.0117	.003	.0006	.0001	.002
%RSD	8.3777	55.806	12.045	.1660	.4730	.1368	.0667
#1	8.7880	3.2348	8.8420	2.094	.1221	.0781	2.696
#2	9.0108	6.4900	7.2422	2.088	.1216	.0781	2.699
#3	7.6821	2.2352	9.1151	2.088	.1228	.0782	2.699

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-8.5884	.3390	2.147	4102.7	7.8085	6.9302
Dev	2.6180	.0002	.000	7.5	.3721	.0923
%RSD	30.483	.0475	.0210	.18197	4.7653	1.3320
#1	-7.6993	.3388	2.148	4111.1	8.2079	6.9748
#2	-6.5307	.3390	2.147	4100.3	7.4716	6.9917
#3	-11.535	.3392	2.148	4096.8	7.7461	6.8241

VHBNY004 M93

Analysis Report

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Method: CLP1 Sample Name: 0310665-004A

Operator: MMR

Run Time: 10/23/03 12:18:51

Comment: N55-04A

Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	4.4326	88.72	90.999	.0481	1.259	.0040	37.41
Dev	.3523	.25	.701	.0009	.003	.0000	.17
%RSD	7.9475	.2856	.77039	1.837	.2278	.9400	.4530

#1	4.1314	88.43	90.725	.0471	1.256	.0040	37.22
#2	4.8200	88.91	90.477	.0486	1.262	.0041	37.55
#3	4.3464	88.82	91.796	.0487	1.259	.0040	37.45

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0031	.0494	.2306	.8603	166.3	7.958	18.39
Dev	.0002	.0002	.0009	.0016	.9	.006	.06
%RSD	6.730	.3910	.4111	.1907	.5459	.0721	.3269

#1	.0033	.0496	.2298	.8611	165.2	7.960	18.33
#2	.0029	.0494	.2317	.8615	167.0	7.961	18.45
#3	.0030	.0492	.2304	.8585	166.6	7.951	18.39

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.295	.0093	.7797	.1658	4786.3	4812.7	9.6848
Dev	.008	.0003	.0011	.0011	17.3	24.0	.4936
%RSD	.3529	3.651	.1360	.6902	.36123	.49956	5.0969

#1	2.286	.0092	.7806	.1649	4796.9	4798.1	9.2335
#2	2.302	.0097	.7800	.1671	4795.6	4840.5	10.212
#3	2.296	.0090	.7785	.1653	4766.3	4799.6	9.6090

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	14.265	6.9646	14.325	2.082	.1741	.1573	2.808
Dev	1.014	3.8803	.700	.014	.0004	.0002	.011
%RSD	7.1104	55.715	4.8874	.6751	.2292	.1443	.3998

#1	15.411	10.505	13.598	2.068	.1737	.1574	2.796
#2	13.482	2.8160	14.384	2.096	.1744	.1573	2.819
#3	13.902	7.5730	14.994	2.082	.1743	.1570	2.811

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-6.9850	.4489	3.300	4803.9	12.740	11.874
Dev	.9839	.0019	.008	19.3	.533	1.163
%RSD	14.086	.4238	.2346	.40105	4.1853	9.7903

#1	-6.0961	.4469	3.294	4797.7	13.354	12.568
#2	-8.0421	.4507	3.309	4825.5	12.393	10.532
#3	-6.8167	.4492	3.299	4788.5	12.472	12.523

VHBNY004 M94

Method: CLP1 Sample Name: 0310665-005A

Operator: MMR

Run Time: 10/23/03 12:28:47

Comment: N55-05A

Method: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	3.4503	77.95	70.178	.0439	1.057	.0038	34.20
Dev	.1457	.08	.329	.0001	.001	.0000	.03
RSD	4.2223	.0978	.46883	.2598	.0635	.0560	.0981

#1	3.3532	78.03	69.842	.0440	1.057	.0038	34.16
#2	3.3798	77.92	70.191	.0439	1.056	.0038	34.22
#3	3.6178	77.89	70.500	.0438	1.058	.0038	34.21

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0075	.0510	.2611	.8532	160.2	6.549	16.87
Dev	.0001	.0000	.0002	.0001	.1	.012	.00
RSD	1.763	.0426	.0887	.0137	.0335	.1885	.0132

#1	.0074	.0510	.2611	.8530	160.1	6.563	16.86
#2	.0075	.0510	.2609	.8532	160.2	6.539	16.87
#3	.0077	.0510	.2614	.8533	160.2	6.546	16.87

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.719	.0086	.6551	.1695	4229.3	4249.8	7.8912
Dev	.002	.0002	.0004	.0003	13.2	21.7	1.1580
RSD	.0763	2.607	.0663	.1925	.31269	.51065	14.675

#1	2.717	.0087	.6548	.1693	4215.7	4242.9	8.5719
#2	2.720	.0087	.6550	.1694	4242.1	4274.1	8.5477
#3	2.721	.0083	.6556	.1699	4230.1	4232.4	6.5542

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	11.997	5.2736	10.898	1.798	.1880	.1541	2.338
Dev	1.487	2.5735	1.491	.006	.0004	.0001	.002
RSD	12.393	48.799	13.685	.3141	.2293	.0880	.0732

#1	10.582	6.7370	9.5214	1.800	.1876	.1540	2.336
#2	11.862	2.3022	10.689	1.803	.1880	.1540	2.340
#3	13.546	6.7817	12.482	1.792	.1885	.1542	2.338

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-9.3270	.3831	4.618	4243.0	10.630	9.0248
Dev	1.1433	.0003	.003	17.8	.662	1.3945
RSD	12.258	.0875	.0669	.41893	6.2296	15.452

#1	-9.2897	.3829	4.614	4233.8	9.9125	8.5942
#2	-8.2028	.3829	4.621	4263.5	10.759	7.8965
#3	-10.488	.3835	4.618	4231.7	11.218	10.584

Analysis Report

10/23/03 12:47:00 PM

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Method: CLP1 Sample Name: 0310665-006A

Operator: MMR

Run Time: 10/23/03 12:37:56

Comment: NSS- c6A

Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	.31734	6.969	.61652	.0404	.3106	.0005	42.77
Dev	.05926	.030	.37916	.0003	.0006	.0000	.01
%RSD	18.675	.4372	61.500	.8256	.2053	3.279	.0296

#1	.33318	6.996	.70526	.0407	.3110	.0005	42.77
#2	.36706	6.975	.20086	.0401	.3108	.0005	42.78
#3	.25176	6.936	.94344	.0403	.3098	.0005	42.76

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0016	.0058	.0491	.0681	12.60	3.237	5.104
Dev	.0001	.0002	.0001	.0005	.03	.010	.008
%RSD	6.223	2.965	.1043	.7070	.2601	.3122	.1636

#1	.0015	.0060	.0490	.0686	12.64	3.241	5.112
#2	.0017	.0058	.0491	.0681	12.59	3.245	5.106
#3	.0017	.0057	.0490	.0677	12.57	3.226	5.095

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.5371	.0023	.2594	.0264	252.54	251.96	2.2744
Dev	.0005	.0005	.0015	.0002	.18	1.25	1.2310
%RSD	.0935	22.22	.5698	.6596	.07311	.49653	54.124

#1	.5377	.0018	.2602	.0266	252.71	252.65	3.0711
#2	.5371	.0023	.2603	.0263	252.55	252.71	2.8954
#3	.5367	.0028	.2577	.0264	252.34	250.51	.85658

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	2.2656	-1.8620	4.8428	1.570	.0401	.1397	.3786
Dev	1.0951	.7544	1.5251	.002	.0007	.0001	.0010
%RSD	48.337	40.516	31.493	.1477	1.844	.0897	.2713

#1	1.2196	-1.9193	6.3313	1.569	.0404	.1398	.3790
#2	3.4040	-2.5862	4.9137	1.573	.0392	.1396	.3794
#3	2.1732	-1.0806	3.2835	1.569	.0405	.1396	.3774

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-3.1143	.0437	.4616	252.15	2.2685	2.6101
Dev	.7438	.0002	.0009	.89	.8382	.8927
%RSD	23.884	.4061	.2052	.35273	36.950	34.203

#1	-3.4034	.0439	.4626	252.67	1.8362	3.5838
#2	-3.6701	.0437	.4615	252.66	3.2346	2.4162
#3	-2.2693	.0435	.4607	251.12	1.7348	1.8303

VHBNY004 M96

Method: CLP1 Sample Name: 0310665-007A Operator: MMR  
 Run Time: 10/23/03 12:47:06  
 Comment: NSS-07A  
 Method: CONC Corr. Factor: 1

Item	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	1.0326	73.08	51.643	.0285	.5508	.0029	25.47
Dev	.1494	.14	.647	.0005	.0006	.0000	.04
RSD	14.471	.1903	1.2531	1.716	.1116	.1772	.1408

#1	1.1906	72.95	52.323	.0281	.5505	.0029	25.50
#2	1.0135	73.22	51.573	.0284	.5515	.0029	25.48
#3	.89361	73.09	51.034	.0290	.5503	.0029	25.43

Item	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0046	.0333	.2215	.3018	102.3	5.567	12.52
Dev	.0001	.0002	.0002	.0006	.2	.020	.02
RSD	2.052	.6342	.1040	.1815	.1765	.3629	.1328

#1	.0047	.0332	.2218	.3012	102.5	5.544	12.54
#2	.0045	.0335	.2214	.3021	102.4	5.577	12.53
#3	.0047	.0331	.2214	.3021	102.1	5.580	12.51

Item	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	1.318	.0050	.4232	.0941	2207.3	2226.5	5.3911
Dev	.001	.0006	.0012	.0008	6.4	3.7	1.1221
RSD	.1088	12.99	.2845	.8538	.28920	.16720	20.814

#1	1.319	.0057	.4218	.0948	2213.7	2230.7	4.1483
#2	1.319	.0047	.4237	.0944	2207.2	2225.2	5.6949
#3	1.316	.0045	.4241	.0932	2200.9	2223.7	6.3299

Item	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	5.9506	.62709	5.1816	2.201	.0905	.1088	2.552
Dev	1.2043	.50456	1.2347	.009	.0010	.0002	.003
RSD	20.239	80.462	23.828	.4238	1.121	.2001	.1257

#1	7.2484	-.73819	5.1744	2.205	.0915	.1086	2.554
#2	5.7343	-1.0668	3.9505	2.207	.0904	.1091	2.554
#3	4.8690	-.07623	6.4198	2.190	.0895	.1088	2.548

Item	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-7.6642	.1744	1.298	2220.1	5.7643	3.2473
Dev	1.8422	.0003	.000	4.6	.4319	.9891
RSD	24.036	.1624	.0169	.20516	7.4928	30.459

#1	-6.5404	.1747	1.299	2225.1	6.2161	3.2056
#2	-6.6619	.1742	1.298	2219.2	5.7212	2.2797
#3	-9.7901	.1743	1.298	2216.1	5.3555	4.2566

Method: CLP1      Sample Name: 0310665-008A      Operator: MMR  
 Run Time: 10/23/03 12:56:16  
 Comment: WSS-08A  
 Mode: CONC      Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	2.4091	64.96	57.796	.0389	1.819	.0038	41.20
Dev	.3862	.22	2.335	.0010	.002	.0001	.37
%RSD	16.031	.3363	4.0396	2.579	.1080	1.223	.8891
#1	2.2990	64.89	58.095	.0382	1.820	.0037	40.87
#2	2.0899	64.79	55.327	.0385	1.817	.0038	41.13
#3	2.8384	65.21	59.967	.0401	1.820	.0038	41.60

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0104	.0499	.4477	.6016	144.1	6.076	23.60
Dev	.0002	.0007	.0031	.0017	1.3	.021	.17
%RSD	1.536	1.448	.6937	.2763	.8966	.3397	.7218
#1	.0106	.0494	.4452	.6035	143.0	6.097	23.45
#2	.0102	.0495	.4467	.6005	143.9	6.056	23.55
#3	.0103	.0507	.4511	.6008	145.6	6.075	23.78

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	1.803	.0144	.7616	.1693	6571.7	6589.2	11.122
Dev	.010	.0008	.0028	.0028	43.8	9.6	.886
%RSD	.5519	5.599	.3623	1.637	.66622	.14534	7.9663
#1	1.795	.0135	.7643	.1671	6521.2	6580.0	12.010
#2	1.801	.0146	.7588	.1684	6596.7	6599.1	10.238
#3	1.815	.0151	.7616	.1724	6597.4	6588.5	11.119

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	18.369	2.5260	8.3266	1.814	.1707	.1063	2.365
Dev	2.298	1.3835	2.0408	.009	.0021	.0004	.011
%RSD	12.510	54.768	24.509	.4973	1.225	.3853	.4611
#1	20.092	1.8448	7.6560	1.814	.1691	.1068	2.358
#2	19.254	1.6152	6.7055	1.805	.1699	.1061	2.359
#3	15.760	4.1180	10.618	1.823	.1731	.1061	2.378

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-5.9433	.2172	4.396	6583.4	15.956	6.3950
Dev	1.3556	.0010	.015	20.2	1.614	1.8179
%RSD	22.809	.4520	.3420	.30680	10.113	28.427
#1	-6.3638	.2169	4.385	6560.4	17.401	5.7209
#2	-7.0388	.2164	4.390	6598.3	16.252	5.0105
#3	-4.4273	.2183	4.413	6591.5	14.214	8.4537

VHBNY004 M98

Method: CLP1 Sample Name: CCV3

Operator: MMR

Run Time: 10/23/03 13:05:25

Comment:

Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	980.95	51.07	472.27	2.411	2.478	2.467	50.66
SDev	3.78	.30	3.44	.008	.008	.010	.25
%RSD	.38559	.5824	.72814	.3442	.3266	.3946	.4927

#1	980.06	51.02	469.10	2.406	2.478	2.470	50.71
#2	985.10	51.39	475.92	2.420	2.487	2.475	50.88
#3	977.70	50.80	471.79	2.405	2.470	2.456	50.39

Errors	LC Pass						
High	1100.0	55.00	550.00	2.750	2.750	2.750	55.00
Low	900.00	45.00	450.00	2.250	2.250	2.250	45.00

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	2.490	2.409	2.458	2.470	48.89	82.76	50.61
SDev	.013	.010	.011	.009	.23	.35	.25
%RSD	.5330	.4157	.4458	.3733	.4768	.4220	.4968

#1	2.498	2.410	2.460	2.467	48.97	82.59	50.64
#2	2.497	2.418	2.468	2.481	49.07	83.17	50.84
#3	2.474	2.398	2.446	2.463	48.63	82.53	50.34

Errors	LC Pass						
High	2.750	2.750	2.750	2.750	55.00	88.00	55.00
Low	2.250	2.250	2.250	2.250	45.00	72.00	45.00

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.449	2.496	80.61	2.491	474.59	483.58	1013.9
SDev	.010	.011	.65	.013	5.47	1.64	1.8
%RSD	.4086	.4465	.8091	.5056	1.1529	.33963	.17723

#1	2.451	2.492	80.39	2.499	476.15	484.83	1015.8
#2	2.458	2.508	81.34	2.499	479.11	484.20	1013.7
#3	2.438	2.487	80.09	2.477	468.51	481.72	1012.2

Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	2.750		88.00	2.750			
Low	2.250		72.00	2.250			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	1003.1	488.76	484.94	2.138	2.382	2.410	2.532
SDev	7.7	4.58	2.61	.011	.008	.006	.009
%RSD	.76578	.93722	.53729	.5233	.3386	.2549	.3681

#1	1003.1	487.53	486.03	2.136	2.384	2.408	2.535
#2	1010.8	493.83	486.82	2.150	2.389	2.417	2.539
#3	995.45	484.92	481.96	2.128	2.373	2.405	2.521

Errors	NOCHECK						
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VHBNY004 M99

High

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	467.41	2.446	2.557	480.59	1006.7	486.21
SD	6.72	.008	.010	2.84	5.4	3.11
RSD	1.4371	.3116	.3869	.59155	.53573	.64063

#1	461.98	2.446	2.557	481.94	1007.3	486.53
#2	474.92	2.454	2.567	482.50	1011.8	489.15
#3	465.32	2.439	2.547	477.32	1001.0	482.95

Errors	LC Pass					
High	550.00	2.750	2.750	550.00	1100.0	550.00
Low	450.00	2.250	2.250	450.00	900.00	450.00

Method: CLP1 Sample Name: CCB3  
 Run Time: 10/23/03 13:14:35  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	.54048	.0397	-2.5992	.0023	.0009	.0008	.0541
SDev	.23669	.0089	1.5163	.0007	.0004	.0003	.0088
%RSD	43.791	22.38	58.336	31.67	42.78	40.31	16.17
#1	.76233	.0483	-.97996	.0030	.0013	.0011	.0631
#2	.29133	.0403	-2.8321	.0022	.0008	.0008	.0535
#3	.56780	.0305	-3.9856	.0016	.0005	.0005	.0456
Errors	LC Pass						
High	10.000	.2000	10.000	.2000	.2000	.0050	.2000
Low	-10.000	-.2000	-10.000	-.2000	-.2000	-.0050	-.2000

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0008	.0010	.0010	.0002	.0246	.0643	.0192
SDev	.0002	.0003	.0002	.0006	.0101	.0104	.0064
%RSD	27.82	34.19	23.25	416.5	40.96	16.25	33.52
#1	.0010	.0014	.0013	.0008	.0346	.0759	.0250
#2	.0008	.0008	.0009	.0002	.0248	.0611	.0201
#3	.0006	.0009	.0008	-.0005	.0144	.0557	.0123
Errors	LC Pass						
High	.0050	.0500	.0100	.0250	.1000	5.000	.2000
Low	-.0050	-.0500	-.0100	-.0250	-.1000	-5.000	-.2000

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.0010	.0088	.0319	.0009	1.0175	1.6177	.84189
SDev	.0004	.0027	.0140	.0006	1.8064	.6471	.86015
%RSD	43.21	30.26	44.05	63.65	177.53	40.003	102.17
#1	.0015	.0118	.0466	.0012	2.6117	.96379	-.11893
#2	.0009	.0082	.0304	.0011	-.94446	2.2578	1.5402
#3	.0006	.0066	.0186	.0002	1.3854	1.6314	1.1044
Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	.0150		5.000	.0400			
Low	-.0150		-5.000	-.0400			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	1.7652	4.2380	1.1023	.0394	.0014	.0009	.0013
SDev	1.1805	1.5557	1.0703	.0009	.0003	.0003	.0004
%RSD	66.876	36.708	97.089	2.328	19.07	37.79	33.96
#1	2.9714	5.0394	1.7274	.0403	.0013	.0012	.0017
#2	.61220	5.2296	1.7131	.0394	.0012	.0008	.0012
#3	1.7120	2.4450	-.13346	.0385	.0016	.0006	.0009
Errors	NOCHECK						

VHBNY004 M101

High

Element	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avge	3.5333	.0010	.0008	1.4179	1.4577	2.1465
SDev	1.8505	.0005	.0005	.1969	.5125	1.2312
RSD	52.375	55.24	59.70	13.889	35.159	57.359

#1	4.4247	.0016	.0013	1.5126	1.9423	2.8303
#2	4.7694	.0007	.0008	1.1915	.92123	2.8841
#3	1.4058	.0007	.0004	1.5495	1.5097	.72518

Errors	LC Pass					
High	10.000	.0500	.0200	3.0000	60.000	5.0000
Low	-10.000	-.0500	-.0200	-3.0000	-60.000	-5.0000

Analysis Report

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Method: CLP1 Sample Name: 0310665-009A  
 Run Time: 10/23/03 13:23:45  
 Comment: NSS-09A  
 Method: CONC Corr. Factor: 1

Operator: MMR

Elem Units	Ag ppb	Al ppm	As1890 ppb	B ppm	Ba ppm	Be ppm	Ca ppm
Avg	2.8207	78.36	94.579	.2199	2.012	.0037	30.18
Dev	.2391	.46	1.465	.0008	.004	.0001	.02
SRSD	8.4753	.5891	1.5486	.3738	.2164	1.314	.0615
#1	3.0923	77.83	93.502	.2190	2.007	.0038	30.19
#2	2.6422	78.58	93.987	.2205	2.014	.0037	30.19
#3	2.7275	78.68	96.246	.2202	2.015	.0037	30.16

Elem Units	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Mg ppm
Avg	.0104	.0617	.5617	.8552	171.7	9.706	17.79
Dev	.0001	.0003	.0010	.0034	.1	.069	.02
SRSD	1.097	.4250	.1783	.3934	.0844	.7069	.1004
#1	.0105	.0618	.5626	.8513	171.9	9.628	17.78
#2	.0103	.0619	.5619	.8570	171.7	9.734	17.81
#3	.0104	.0614	.5606	.8573	171.6	9.756	17.79

Elem Units	Mn ppm	Mo ppm	Na ppm	Ni ppm	2203/1 ppb	2203/2 ppb	2068/1 ppb
Avg	2.081	.0437	1.832	.1640	9663.9	9692.8	47.468
Dev	.001	.0006	.014	.0008	35.8	26.3	1.885
SRSD	.0474	1.409	.7784	.4560	.37013	.27084	3.9722
#1	2.082	.0435	1.815	.1647	9701.7	9722.9	46.109
#2	2.082	.0444	1.838	.1640	9630.6	9674.4	46.674
#3	2.080	.0432	1.842	.1632	9659.2	9681.2	49.620

Elem Units	2068/2 ppb	1960/1 ppb	1960/2 ppb	Si ppm	Sn ppm	Sr ppm	Ti ppm
Avg	51.654	1.1909	7.2435	1.933	.3952	.1582	2.905
Dev	.403	2.6437	1.5101	.017	.0007	.0003	.004
SRSD	.77955	221.99	20.848	.8908	.1778	.1909	.1530
#1	51.647	-1.1119	8.9872	1.914	.3944	.1578	2.901
#2	52.061	.60693	6.3757	1.938	.3957	.1584	2.910
#3	51.256	4.0777	6.3676	1.948	.3956	.1583	2.904

Elem Units	Tl1908 ppb	V ppm	Zn ppm	Pb2203 ppb	Sb2068 ppb	Se1960 ppb
Avg	-7.3593	.2709	4.954	9683.2	50.260	5.2280
Dev	1.1772	.0002	.002	29.1	.454	.6698
SRSD	15.996	.0852	.0356	.30093	.90351	12.811
#1	-6.3410	.2711	4.953	9715.8	49.803	5.6242
#2	-7.0886	.2709	4.956	9659.8	50.267	4.4547
#3	-8.6483	.2707	4.953	9673.9	50.711	5.6051

VHBNY004 M103

Analysis Report

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Method: CLP1 Sample Name: 0310665-010A  
Run Time: 10/23/03 13:32:55  
Comment: NSS-01/10A  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	1.4661	26.38	19.364	.0346	.5219	.0018	139.6
Dev	.2947	.07	.922	.0002	.0003	.0000	.0
%RSD	20.103	.2648	4.7613	.5359	.0610	.5855	.0272

#1	1.6243	26.30	20.400	.0346	.5217	.0018	139.6
#2	1.6478	26.38	19.054	.0345	.5217	.0018	139.6
#3	1.1260	26.44	18.636	.0349	.5223	.0018	139.5

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0045	.0326	.1744	.4757	95.47	3.832	81.98
Dev	.0001	.0001	.0003	.0015	.01	.014	.04
%RSD	1.893	.3890	.1851	.3163	.0148	.3546	.0498

#1	.0044	.0327	.1748	.4741	95.46	3.818	81.94
#2	.0044	.0324	.1742	.4759	95.47	3.834	82.00
#3	.0045	.0326	.1743	.4771	95.48	3.845	82.02

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	1.064	.0070	.6226	.0936	2880.9	2898.6	10.360
Dev	.000	.0003	.0016	.0001	7.9	9.6	.900
%RSD	.0369	4.199	.2592	.0950	.27592	.33065	8.6914

#1	1.064	.0071	.6213	.0935	2883.1	2909.4	10.393
#2	1.064	.0067	.6222	.0937	2887.4	2890.9	9.4439
#3	1.064	.0073	.6244	.0936	2872.0	2895.6	11.244

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	14.026	3.3054	2.9971	1.434	.2456	-.0035	1.543
Dev	1.041	.9906	1.0879	.005	.0010	.0003	.001
%RSD	7.4252	29.967	36.298	.3816	.3912	7.368	.0663

#1	14.883	2.7354	1.8370	1.437	.2463	-.0033	1.542
#2	14.327	2.7317	3.1599	1.439	.2459	-.0034	1.543
#3	12.867	4.4492	3.9945	1.428	.2445	-.0038	1.544

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-4.3238	.1740	2.320	2892.7	12.805	3.0998
Dev	.9433	.0002	.000	6.9	.538	1.0074
%RSD	21.816	.1215	.0132	.23966	4.2043	32.499

#1	-3.4975	.1741	2.321	2900.6	13.388	2.1362
#2	-5.3515	.1740	2.321	2889.8	12.701	3.0173
#3	-4.1224	.1737	2.320	2887.8	12.326	4.1459

VHBNY004 M104

Method: CLP1 Sample Name: 0310665-011A  
Run Time: 10/23/03 13:42:05  
Element: NSS-11A  
Mode: CONC Corr. Factor: 1

Operator: MMR

Element	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	1.7164	79.33	39.021	.0391	.6957	.0035	23.31
Dev	.2022	.26	1.332	.0001	.0016	.0000	.01
%RSD	11.780	.3313	3.4140	.1503	.2285	.6729	.0602

#1	1.4836	79.52	38.858	.0391	.6966	.0035	23.30
#2	1.8485	79.44	37.778	.0392	.6967	.0035	23.31
#3	1.8171	79.03	40.427	.0392	.6939	.0035	23.32

Element	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0041	.0471	.2403	.4870	118.9	11.40	16.93
Dev	.0001	.0002	.0003	.0018	.2	.06	.01
%RSD	2.580	.3426	.1203	.3716	.1433	.4983	.0589

#1	.0042	.0471	.2402	.4885	118.7	11.45	16.94
#2	.0041	.0469	.2401	.4875	119.0	11.40	16.93
#3	.0040	.0472	.2407	.4850	119.0	11.34	16.92

Element	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	1.817	.0083	.6268	.1301	2216.9	2231.3	5.7122
Dev	.002	.0004	.0035	.0002	7.1	4.5	.6451
%RSD	.0913	5.266	.5526	.1623	.32091	.20063	11.294

#1	1.815	.0088	.6299	.1301	2208.7	2226.8	6.1292
#2	1.818	.0081	.6275	.1298	2221.9	2231.5	6.0383
#3	1.818	.0081	.6231	.1303	2220.0	2235.8	4.9691

Element	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	7.5543	-1.0326	6.9169	1.907	.1208	.0845	2.920
Dev	.9001	1.2813	1.1685	.011	.0004	.0002	.004
%RSD	11.916	124.08	16.894	.5761	.3361	.2276	.1342

#1	6.8660	.34919	7.8378	1.905	.1208	.0845	2.918
#2	8.5729	-1.2657	5.6024	1.919	.1212	.0847	2.925
#3	7.2240	-2.1814	7.3104	1.897	.1204	.0843	2.918

Element	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	-7.6881	.2379	1.828	2226.5	6.9409	4.2697
Dev	.6848	.0005	.002	5.1	.6864	1.0197
%RSD	8.9071	.1986	.0945	.22876	9.8894	23.882

#1	-8.2489	.2373	1.828	2220.8	6.6207	5.3441
#2	-7.8906	.2380	1.830	2228.3	7.7289	3.3153
#3	-6.9249	.2382	1.827	2230.5	6.4731	4.1497

VHBNY004 M105

Analysis Report

10/23/03 02:00:18 PM

Method: CLP1 Sample Name: CRIF  
Run Time: 10/23/03 13:51:14  
Element:   
MODE: CONC Corr. Factor: 1

Operator: MMR

Element	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	20.091	.0499	17.104	.1969	.0003	.0104	.0386
Dev	.502	.0140	1.316	.0011	.0001	.0000	.0067
%RSD	2.4995	28.03	7.6922	.5670	46.24	.3010	17.36

#1	20.668	.0647	16.456	.1982	.0005	.0105	.0458
#2	19.751	.0481	16.238	.1960	.0003	.0104	.0372
#3	19.854	.0369	18.617	.1967	.0002	.0104	.0327

Element	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0104	.1012	.0207	.0496	.0460	.0430	.0107
Dev	.0001	.0004	.0002	.0002	.0187	.0050	.0050
%RSD	1.137	.4248	.8452	.3724	40.63	11.69	46.88

#1	.0106	.1017	.0208	.0497	.0660	.0486	.0162
#2	.0103	.1012	.0208	.0494	.0430	.0413	.0094
#3	.0104	.1008	.0205	.0496	.0290	.0390	.0064

Element	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.0313	.0229	.0313	.0833	6.6438	8.8406	116.58
Dev	.0004	.0010	.0011	.0005	1.5015	1.9708	2.92
%RSD	1.260	4.212	3.503	.5875	22.600	22.293	2.5008

#1	.0317	.0230	.0325	.0837	7.3355	9.6139	113.51
#2	.0313	.0219	.0306	.0833	7.6748	6.6004	116.92
#3	.0310	.0239	.0306	.0828	4.9211	10.307	119.31

Element	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	116.88	10.246	9.0582	.1526	.0805	.0000	.2122
Dev	1.59	1.519	1.5194	.0021	.0012	.0000	.0008
%RSD	1.3632	14.821	16.774	1.376	1.530	62.17	.3834

#1	115.81	11.987	8.4858	.1550	.0816	.0001	.2130
#2	118.71	9.5585	10.781	.1509	.0792	.0000	.2121
#3	116.13	9.1929	7.9081	.1521	.0807	.0000	.2114

Element	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	18.540	.1014	.0441	8.1091	116.78	9.4538
Dev	.574	.0004	.0006	1.0112	1.58	1.0332
%RSD	3.0971	.4137	1.380	12.470	1.3492	10.929

#1	19.055	.1018	.0448	8.8552	115.04	9.6516
#2	17.921	.1009	.0440	6.9582	118.12	10.374
#3	18.643	.1014	.0436	8.5139	117.19	8.3360

VHBNY004 M106

Method: CLP1 Sample Name: ICSAF  
Run Time: 10/23/03 14:00:25  
Concentration:  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	.43274	505.6	-6.0620	.0060	.0015	.0004	511.4
Dev	.33698	1.0	.6629	.0014	.0000	.0000	1.4
%RSD	77.872	.2035	10.935	23.62	.3670	.2745	.2798
#1	.08722	506.2	-6.8184	.0044	.0015	.0004	511.6
#2	.45051	506.1	-5.5822	.0065	.0015	.0004	512.7
#3	.76048	504.4	-5.7855	.0071	.0015	.0004	509.9
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	10.000	600.0			.2000	.0050	600.0
Low	-10.000	400.0			-.2000	-.0050	400.0
Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	-.0023	-.0003	-.0002	.0048	205.3	.0557	505.0
Dev	.0003	.0004	.0002	.0004	.6	.0019	1.2
%RSD	14.88	163.1	85.39	8.170	.2811	3.345	.2404
#1	-.0020	.0001	-.0000	.0052	205.1	.0565	505.5
#2	-.0024	-.0001	-.0002	.0046	206.0	.0536	506.0
#3	-.0026	-.0007	-.0004	.0044	204.8	.0571	503.7
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass
High	.0050		.0100		240.0		600.0
Low	-.0050		-.0100		160.0		400.0
Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	-.0038	-.0048	.0310	.0035	-12.787	7.2907	2.5566
SDev	.0009	.0013	.0005	.0008	5.182	4.3355	2.7598
%RSD	23.35	27.30	1.581	22.66	40.523	59.467	107.95
#1	-.0029	-.0060	.0305	.0044	-8.1924	4.1229	.51523
#2	-.0039	-.0034	.0313	.0029	-11.765	5.5174	1.4581
#3	-.0046	-.0050	.0313	.0033	-18.403	12.232	5.6965
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	.0150			.0400			
Low	-.0150			-.0400			
Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	1.8226	-4.4598	1.0956	.0618	.0416	-.3252	.0032
SDev	4.6615	7.4802	.3915	.0002	.0018	.0008	.0001
%RSD	255.77	167.73	35.733	.3164	4.274	.2508	3.723
#1	5.5324	-1.3715	1.3277	.0617	.0415	-.3243	.0034
#2	3.3451	.98185	1.3154	.0620	.0435	-.3253	.0032
#3	-3.4098	-12.990	.64359	.0617	.0399	-.3259	.0031
Errors	NOCHECK						

VHBNY004 M107

High

Elem	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	L-13.375	.0000	.0026	.60490	2.0670	-.75435
SD	1.125	.0003	.0003	1.2412	2.1930	2.74848
RSD	8.4096	676.7	10.30	205.20	106.09	364.35

#1	L-12.108	-.0002	.0029	.02194	3.8617	.42888
#2	L-14.258	.0003	.0027	-.23755	2.7167	1.2043
#3	L-13.758	.0001	.0024	2.0303	-.37740	-3.8963

Errors	LC Low	LC Pass				
High	10.000	.0500	.0200	6.0000	60.000	5.0000
Low	-10.000	-.0500	-.0200	-6.0000	-60.000	-5.0000

VHBNY004 M108

Method: CLP1 Sample Name: ICSABF  
Run Time: 10/23/03 14:09:40  
Comment:  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	1091.3	505.9	1026.2	.9568	.5320	.5142	508.4
SDev	.9	.3	.9	.0012	.0002	.0005	.6
%RSD	.08191	.0664	.08664	.1257	.0428	.0910	.1180
#1	1090.7	506.2	1025.2	.9557	.5320	.5142	508.1
#2	1092.3	505.9	1026.5	.9568	.5322	.5147	509.1
#3	1090.9	505.6	1026.9	.9581	.5318	.5138	508.0
Errors	LC Pass						
High	1200.0	600.0	1200.0	1.200	.6000	.6000	600.0
Low	800.00	400.0	800.00	.8000	.4000	.4000	400.0

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.9852	.4880	.4973	.5565	203.5	.0500	504.3
SDev	.0025	.0004	.0003	.0003	.3	.0027	.3
%RSD	.2566	.0905	.0629	.0535	.1526	5.351	.0604
#1	.9865	.4882	.4977	.5561	203.7	.0483	504.3
#2	.9869	.4884	.4973	.5565	203.8	.0486	504.6
#3	.9823	.4875	.4970	.5567	203.2	.0531	504.0

Errors	LC Pass	NOCHECK	LC Pass				
High	1.200	.6000	.6000	.6000	240.0		600.0
Low	.8000	.4000	.4000	.4000	160.0		400.0

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.5026	1.050	.0355	.9835	963.34	989.00	-7.2149
SDev	.0004	.004	.0003	.0018	2.48	2.70	3.5045
%RSD	.0838	.3692	.8070	.1841	.25715	.27258	48.574
#1	.5022	1.046	.0354	.9856	962.96	990.63	-6.5861
#2	.5030	1.050	.0358	.9827	961.07	990.48	-4.0673
#3	.5027	1.054	.0353	.9823	965.98	985.89	-10.991

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	.6000			1.200			
Low	.4000			.8000			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	-10.335	1009.7	1001.0	.6120	1.048	-.3312	.0024
SDev	2.099	4.8	3.8	.0008	.003	.0012	.0001
%RSD	20.312	.47246	.37536	.1234	.2584	.3648	2.638
#1	-8.0087	1008.6	1003.2	.6113	1.049	-.3316	.0023
#2	-12.088	1005.6	1003.2	.6119	1.049	-.3299	.0024
#3	-10.908	1014.9	996.70	.6128	1.045	-.3322	.0024

Errors	NOCHECK						
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VHBNY004 M109

High

Item	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	975.99	.5066	1.088	980.46	-9.2960	1003.9
Dev	5.52	.0005	.001	1.10	1.7038	1.1
RSD	.56607	.0938	.0947	.11184	18.328	.11348
#1	970.27	.5067	1.087	981.42	-7.5349	1005.0
#2	976.39	.5071	1.089	980.69	-9.4172	1004.0
#3	981.30	.5061	1.089	979.26	-10.936	1002.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass
High	1200.0	.6000	1.200	1200.0		1200.0
Low	800.00	.4000	.8000	800.00		800.00

VHBNY004 M110

Method: CLP1 Sample Name: CCV4  
Time: 10/23/03 14:18:50  
Content:  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	983.26	51.05	479.68	2.428	2.486	2.484	51.06
SDev	7.29	.47	2.83	.018	.021	.022	.39
%RSD	.74159	.9182	.59040	.7403	.8434	.8705	.7729

#1	988.84	51.23	482.43	2.441	2.504	2.506	51.38
#2	985.93	51.41	479.83	2.435	2.492	2.484	51.18
#3	975.01	50.52	476.77	2.407	2.463	2.462	50.62

Errors	LC Pass						
High	1100.0	55.00	550.00	2.750	2.750	2.750	55.00
Low	900.00	45.00	450.00	2.250	2.250	2.250	45.00

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	2.501	2.430	2.474	2.477	49.10	82.81	51.12
SDev	.020	.021	.021	.022	.40	.83	.42
%RSD	.8033	.8734	.8605	.8885	.8183	1.004	.8280

#1	2.521	2.449	2.493	2.492	49.43	83.08	51.45
#2	2.501	2.434	2.477	2.486	49.21	83.47	51.25
#3	2.480	2.407	2.451	2.451	48.65	81.87	50.64

Errors	LC Pass						
High	2.750	2.750	2.750	2.750	55.00	88.00	55.00
Low	2.250	2.250	2.250	2.250	45.00	72.00	45.00

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	2.463	2.512	80.56	2.499	477.41	483.73	1019.6
SDev	.020	.013	.67	.023	2.69	4.47	9.3
%RSD	.8224	.5346	.8336	.9141	.56349	.92321	.91102

#1	2.482	2.521	80.57	2.522	480.50	486.86	1025.5
#2	2.466	2.518	81.23	2.499	475.58	485.72	1024.4
#3	2.442	2.496	79.88	2.476	476.14	478.62	1008.9

Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	2.750		88.00	2.750			
Low	2.250		72.00	2.250			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	1008.8	497.31	490.86	2.147	2.408	2.424	2.542
SDev	5.8	3.82	5.63	.019	.018	.021	.022
%RSD	.57648	.76755	1.1479	.8879	.7415	.8704	.8471

#1	1014.5	498.78	490.32	2.160	2.424	2.442	2.562
#2	1009.0	492.98	496.74	2.157	2.409	2.428	2.545
#3	1002.9	500.18	485.51	2.125	2.389	2.401	2.519

Errors	NOCHECK						
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VHBNY004 M111

High

Item	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	478.89	2.463	2.572	481.63	1012.4	493.01
Dev	3.46	.021	.021	3.53	6.8	2.55
RSD	.72328	.8607	.8068	.73266	.67272	.51700

#1	482.43	2.482	2.591	484.74	1018.2	493.13
#2	478.73	2.468	2.575	482.35	1014.1	495.49
#3	475.51	2.440	2.550	477.79	1004.9	490.40

Errors	LC Pass					
High	550.00	2.750	2.750	550.00	1100.0	550.00
Low	450.00	2.250	2.250	450.00	900.00	450.00

Method: CLP1 Sample Name: CCB4  
Run Time: 10/23/03 14:28:00  
Concentration:  
Mode: CONC Corr. Factor: 1

Operator: MMR

Elem	Ag	Al	As1890	B	Ba	Be	Ca
Units	ppb	ppm	ppb	ppm	ppm	ppm	ppm
Avg	.44915	.0735	-1.0515	.0035	.0008	.0008	.0915
SDev	.23267	.0174	.4958	.0009	.0003	.0003	.0206
%RSD	51.802	23.72	47.148	26.79	36.70	31.63	22.52
#1	.70427	.0906	-.72110	.0045	.0010	.0011	.1120
#2	.39455	.0741	-.81188	.0034	.0008	.0008	.0918
#3	.24864	.0557	-1.6216	.0027	.0005	.0006	.0708
Errors	LC Pass						
High	10.000	.2000	10.000	.2000	.2000	.0050	.2000
Low	-10.000	-.2000	-10.000	-.2000	-.2000	-.0050	-.2000

Elem	Cd	Co	Cr	Cu	Fe	K	Mg
Units	ppm						
Avg	.0009	.0011	.0011	.0006	.0312	.0663	.0569
SDev	.0003	.0005	.0003	.0003	.0102	.0126	.0197
%RSD	39.61	47.67	32.60	53.23	32.75	19.00	34.56
#1	.0012	.0015	.0014	.0009	.0411	.0771	.0747
#2	.0009	.0012	.0012	.0004	.0317	.0694	.0602
#3	.0005	.0005	.0007	.0004	.0207	.0525	.0358
Errors	LC Pass						
High	.0050	.0500	.0100	.0250	.1000	5.000	.2000
Low	-.0050	-.0500	-.0100	-.0250	-.1000	-5.000	-.2000

Elem	Mn	Mo	Na	Ni	2203/1	2203/2	2068/1
Units	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Avg	.0009	.0092	.0378	.0007	.37976	-.08029	.39207
SDev	.0004	.0026	.0125	.0004	1.4566	1.10622	1.6338
%RSD	41.52	28.21	33.21	48.70	383.56	1377.8	416.71
#1	.0012	.0121	.0509	.0012	1.6265	.25000	.04538
#2	.0009	.0085	.0365	.0006	-1.2213	.82317	2.1714
#3	.0005	.0071	.0259	.0005	.73411	-1.3140	-1.0405
Errors	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK	NOCHECK
High	.0150		5.000	.0400			
Low	-.0150		-5.000	-.0400			

Elem	2068/2	1960/1	1960/2	Si	Sn	Sr	Ti
Units	ppb	ppb	ppb	ppm	ppm	ppm	ppm
Avg	.64632	4.0262	1.7713	.0408	.0002	.0008	.0011
SDev	1.4090	2.0643	1.4623	.0008	.0009	.0003	.0004
%RSD	218.01	51.273	82.551	1.867	574.6	31.68	37.33
#1	1.4473	5.1143	3.2502	.0417	.0012	.0010	.0015
#2	-.98062	1.6454	1.7374	.0404	-.0003	.0008	.0013
#3	1.4722	5.3188	.32634	.0404	-.0004	.0005	.0007
Errors	NOCHECK						

VHBNY004 M113

High

Item	Tl1908	V	Zn	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppm	ppb	ppb	ppb
Avg	2.9412	.0010	.0006	.07295	.56166	2.5222
Dev	.8210	.0001	.0003	.67288	.46021	1.1766
RSD	27.913	5.564	53.90	922.37	81.939	46.649

#1	2.0105	.0010	.0010	.70841	.98049	3.8710
#2	3.5626	.0009	.0006	.14240	.06899	1.7068
#3	3.2505	.0010	.0003	-.63196	.63549	1.9888

Errors	LC Pass					
High	10.000	.0500	.0200	3.0000	60.000	5.0000
Low	-10.000	-.0500	-.0200	-3.0000	-60.000	-5.0000

**IV. DOCUMENTATION FOR METALS**

- A. DIGESTION LOG SHEETS**
- B. REPORTING ANALYST SIGNATURE PAGE**





TOTAL SOLIDS FOR SLUDGES AND SOILS

START TIME: 10:55 am

END TIME: 6:30 am

DATE: 10/22/03

ANALYST: JACKIE DELIG

PCCBM & KEYHBRM

LAB#	0310600-007A	PAN/CRUCIBLE	LAB#	0310600-010A	PAN/CRUCIBLE
%TS	87.5/12.5	%TVS	%TS	87.3/12.7	%TVS
INITIAL WEIGHT	9.62	DRY WEIGHT	INITIAL WEIGHT	10.89	DRY WEIGHT
-TARE WEIGHT	2.57	-TARE WEIGHT	-TARE WEIGHT	2.54	-TARE WEIGHT
=SAMPLE WEIGHT	7.03	=SOLID WEIGHT	=SOLID WEIGHT	7.55	=VOLATILE WEIGHT
LAB#	0310600-008A	PAN/CRUCIBLE	LAB#	0310600-010AD	PAN/CRUCIBLE
%TS	89.49/10.1	%TVS	%TS	86.4/13.6	%TVS
INITIAL WEIGHT	11.16	DRY WEIGHT	INITIAL WEIGHT	10.89	DRY WEIGHT
-TARE WEIGHT	2.57	-TARE WEIGHT	-TARE WEIGHT	2.48	-TARE WEIGHT
=SAMPLE WEIGHT	8.59	=SOLID WEIGHT	=SOLID WEIGHT	7.6	=VOLATILE WEIGHT
LAB#	0310600-009A	PAN/CRUCIBLE	LAB#	0310665-001A	PAN/CRUCIBLE
%TS	87.6/12.4	%TVS	%TS	79.2/20.8	%TVS
INITIAL WEIGHT	10.66	DRY WEIGHT	INITIAL WEIGHT	11.24	DRY WEIGHT
-TARE WEIGHT	2.59	-TARE WEIGHT	-TARE WEIGHT	2.39	-TARE WEIGHT
=SAMPLE WEIGHT	8.07	=SOLID WEIGHT	=SOLID WEIGHT	8.65	=VOLATILE WEIGHT

TOTAL SOLIDS FOR SLUDGES AND SOILS

START TIME: 2:30 pm  
 END TIME: 6:30 am

Lab, VHS NY 004  
 8/10/03

DATE: 10/22/03  
 ANALYST: James J. J...

LAB#	PAN/CRUCIBLE	DRY WEIGHT	DRY WEIGHT	DRY WEIGHT	LAB#	PAN/CRUCIBLE	DRY WEIGHT	DRY WEIGHT	DRY WEIGHT
0310665-002A	13	7.54	7.54	7.54	030665-005A	16	8.65	8.65	8.65
80.6/19.4	TVS	-TARE WEIGHT	-TARE WEIGHT	-TARE WEIGHT	81.0/19.0	TVS	-TARE WEIGHT	-TARE WEIGHT	-TARE WEIGHT
8.73		-SOLID WEIGHT	-SOLID WEIGHT	-SOLID WEIGHT	2.54		-SOLID WEIGHT	-SOLID WEIGHT	-SOLID WEIGHT
3.60		-VOLATILE WEIGHT	-VOLATILE WEIGHT	-VOLATILE WEIGHT	2.54		-VOLATILE WEIGHT	-VOLATILE WEIGHT	-VOLATILE WEIGHT
6.13					6.11				
0310665-003A	14	8.40	8.40	8.40	0310665-006A	17	4.88	4.88	4.88
77.4/22.6	TVS	-TARE WEIGHT	-TARE WEIGHT	-TARE WEIGHT	30.4/69.6	TVS	-TARE WEIGHT	-TARE WEIGHT	-TARE WEIGHT
10.10		-SOLID WEIGHT	-SOLID WEIGHT	-SOLID WEIGHT	2.57		-SOLID WEIGHT	-SOLID WEIGHT	-SOLID WEIGHT
3.56		-VOLATILE WEIGHT	-VOLATILE WEIGHT	-VOLATILE WEIGHT	2.31		-VOLATILE WEIGHT	-VOLATILE WEIGHT	-VOLATILE WEIGHT
7.54					2.31				
0310665-004A	15	9.42	9.42	9.42	0310665-007A	18	13.47	13.47	13.47
76.8/23.2	TVS	-TARE WEIGHT	-TARE WEIGHT	-TARE WEIGHT	72.4/27.6	TVS	-TARE WEIGHT	-TARE WEIGHT	-TARE WEIGHT
11.48		-SOLID WEIGHT	-SOLID WEIGHT	-SOLID WEIGHT	2.62		-SOLID WEIGHT	-SOLID WEIGHT	-SOLID WEIGHT
2.60		-VOLATILE WEIGHT	-VOLATILE WEIGHT	-VOLATILE WEIGHT	11.35		-VOLATILE WEIGHT	-VOLATILE WEIGHT	-VOLATILE WEIGHT
8.88					11.35				

## TOTAL SOLIDS FOR SLUDGES AND SOILS

START TIME: 2:30

END TIME: 6:30 a

DATE: 10/22/09

ANALYST: ISAM DELI

10/28/09

LAB#	PAN/CRUCIBLE	DRY WEIGHT	IGNITED WEIGHT	VOLATILE WEIGHT	DRY WEIGHT	IGNITED WEIGHT	VOLATILE WEIGHT
LAB# 0310665-008A	19 PAN/CRUCIBLE						
§TS 89.2/10.8	§TVS						
INITIAL WEIGHT	DRY WEIGHT						
-TARE WEIGHT	-TARE WEIGHT						
-SAMPLE WEIGHT	-SOLID WEIGHT						
LAB# 0310665-009A	20 PAN/CRUCIBLE						
§TS 95.0/5.0	§TVS						
INITIAL WEIGHT	DRY WEIGHT						
-TARE WEIGHT	-TARE WEIGHT						
-SAMPLE WEIGHT	-SOLID WEIGHT						
LAB# 0310665-010A	21 PAN/CRUCIBLE						
§TS 90.7/9.3	§TVS						
INITIAL WEIGHT	DRY WEIGHT						
-TARE WEIGHT	-TARE WEIGHT						
-SAMPLE WEIGHT	-SOLID WEIGHT						
LAB# 0310665-011A	22 PAN/CRUCIBLE						
§TS 81.2/18.8	§TVS						
INITIAL WEIGHT	DRY WEIGHT						
-TARE WEIGHT	-TARE WEIGHT						
-SAMPLE WEIGHT	-SOLID WEIGHT						
LAB# 0310665-012A	23 PAN/CRUCIBLE						
§TS 85.2/14.8	§TVS						
INITIAL WEIGHT	DRY WEIGHT						
-TARE WEIGHT	-TARE WEIGHT						
-SAMPLE WEIGHT	-SOLID WEIGHT						
LAB# 0310665-012ADup	24 PAN/CRUCIBLE						
§TS 85.8/14.2	§TVS						
INITIAL WEIGHT	DRY WEIGHT						
-TARE WEIGHT	-TARE WEIGHT						
-SAMPLE WEIGHT	-SOLID WEIGHT						

RPD = 41%

TOTAL SOLIDS FOR SLUDGES AND SOILS

START TIME: 2:30

END TIME: 6:30 am

DATE: 10/22/09

ANALYST: Barbara Duf

10/28/09

LAB#	0310665-013A	PAN/CRUCIBLE	85	LAB#	0310665-014A	PAN/CRUCIBLE	26	LAB#	0310665-015A	PAN/CRUCIBLE	27
TS	86.71	13.3	TS	79.9	20.1	TS	86.6	13.4	TS	86.6	13.4
INITIAL WEIGHT	6.87	DRY WEIGHT	8.89	INITIAL WEIGHT	4.37	DRY WEIGHT	8.0	INITIAL WEIGHT	6.77	DRY WEIGHT	8.07
-TARE WEIGHT	2.48	-TARE WEIGHT	3.48	-TARE WEIGHT	2.68	-TARE WEIGHT	3.60	-TARE WEIGHT	2.67	-TARE WEIGHT	2.6
-SAMPLE WEIGHT	7.39	-SOLID WEIGHT	6.41	-SAMPLE WEIGHT	6.77	-SOLID WEIGHT	5.4	-SAMPLE WEIGHT	7.16	-SOLID WEIGHT	6.2
		-IGNITED WEIGHT				-IGNITED WEIGHT				-IGNITED WEIGHT	
		-VOLATILE WEIGHT				-VOLATILE WEIGHT				-VOLATILE WEIGHT	
LAB#	0310665-013A	PAN/CRUCIBLE	85	LAB#	0310665-014A	PAN/CRUCIBLE	26	LAB#	0310665-015A	PAN/CRUCIBLE	27
TS	86.71	13.3	TS	79.9	20.1	TS	86.6	13.4	TS	86.6	13.4
INITIAL WEIGHT	6.87	DRY WEIGHT	8.89	INITIAL WEIGHT	4.37	DRY WEIGHT	8.0	INITIAL WEIGHT	6.77	DRY WEIGHT	8.07
-TARE WEIGHT	2.48	-TARE WEIGHT	3.48	-TARE WEIGHT	2.68	-TARE WEIGHT	3.60	-TARE WEIGHT	2.67	-TARE WEIGHT	2.6
-SAMPLE WEIGHT	7.39	-SOLID WEIGHT	6.41	-SAMPLE WEIGHT	6.77	-SOLID WEIGHT	5.4	-SAMPLE WEIGHT	7.16	-SOLID WEIGHT	6.2
		-IGNITED WEIGHT				-IGNITED WEIGHT				-IGNITED WEIGHT	
		-VOLATILE WEIGHT				-VOLATILE WEIGHT				-VOLATILE WEIGHT	

# H2M LABS, INC.

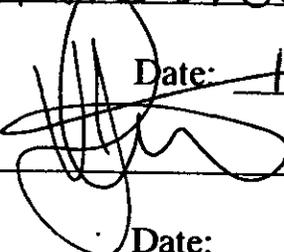
SDG# VHBNY004

SCAN Metals

This data package was reported by the undersigned. This reporting includes data calculations, manual edits, if necessary, and compilation of raw data. The information presented is true and correct to the best of my knowledge.

Signature: 

Date: 10/25/03

Reviewed: 

Date: 10/28/03