

DEPARTMENT OF THE ARMY
Omaha District, Corps of Engineers
106 South 15th Street
Omaha, Nebraska 68102-1618

:NOTICE: Failure to acknowledge : Solicitation No. DACW45 03 B 0020
:all amendments may cause rejec- :
:tion of the bid. See FAR : Date of Issue: 10 Sep 2003
:52.214-3 of Section 00100 : Date of Opening: 21 Oct 2003

Amendment No. 0002
10 October 2003

SUBJECT: Amendment No. 0002 to Specifications and Drawings for Construction of
Surge Tank Floor Repair, Oahe Dam, SD
Solicitation No. DACW45 03 B 0020.

TO: Prospective Bidders and Others Concerned

1. The specifications and drawings for subject project are hereby modified as follows (revise all specification indices, attachment lists, and drawing indices accordingly).

a. Specifications. (Descriptive Changes.)

(1) Table of Contents, delete the following from the Table of Contents page:

"DIVISION 02 - SITE WORK
02532A FORCE MAINS AND INVERTED SIPHONS; SEWER "

"15801 PENSTOCK ARTICULATION JOINT BOLT/COUPLING LUG ASSEMBLY REPLACEMENT"

(2) Section 01200 Page 5, Paragraph 1.16, under SD-01, delete "Construction Right of Way" and "Right of Way Agreements" from the list of submittals.

(3) Section 01451A Page 6, Paragraph 1.16, delete "The CQC System Manager shall be assigned no other duties" and substitute "The CQC System Manager shall be assigned as System Manager but may have duties as project superintendent in addition to quality control."

(4) Section 13283N,

a) Add the "Certificate of Analysis - Paint Sample Results" attachment to the end of the section.

b) Page 7, paragraph 1.3.1 - Work Description:, add the following to the end of the paragraph: "Paint was sampled in May 2002 and the sample results are attached to this SECTION."

(5) Section 15800 Page 1, Part 1, General - add the following to the end of the paragraph: "The drawings show an example of a ventilating scheme which would be expected to provide the required ventilation. However, the Contractor may propose alternate methods of ventilation. For example, it

may be possible to exhaust air out the tops of the surge tanks rather than out the tunnel intakes."

b. Specifications (New and/or Revised and Reissued). Delete and substitute or add specification pages as noted below. The substituted pages are revised and reissued with this amendment.

<u>Pages Deleted</u>	<u>Pages Substituted or Added</u>
00010-3 & 00010-4	00010-3 thru 00010-5
SECTION 01040: AS-BUILT DRAWINGS	-----

c. Drawings (Not Reissued). The following drawings are revised as indicated below with latest revision date of 10 October 2003. These drawings are not reissued with this amendment.

(1) Cover, lower left corner, delete "QCR" "July 2003" and substitute "Advertisement" "September 2003".

(2) Sheet M2.02, see drawing coordinates D-4, delete the leader and the leader note reading "Air flow this project (Typical)"

d. Drawings (Reissued). The following drawing is revised with latest revision date of 10 October 2003, and reissued with this amendment.

(1) Sheet M2.01

2. This amendment is a part of the bidding papers and its receipt shall be acknowledged on the new Standard Form 1442. All other conditions and requirements of the specifications remain unchanged. If the bids have been mailed prior to receiving this amendment, you will notify the office where bids are opened, in the specified manner, immediately of its receipt and of any changes in your bid occasioned thereby.

a. Hand-Carried Bids shall be delivered to the U.S. Army Corps of Engineers, Omaha District, Contracting Division (Room 301), 106 South 15th Street, Omaha, Nebraska 68102-1618.

b. Mailed Bids shall be addressed as noted in Item 8 on Page 00010-1 of Standard Form 1442.

3. Bids will be received until 2:00 p.m., local time at place of bid opening, 21 October 2003.

Attachments:

Standard Form 1442 Pages 00010-3 thru 00010-5
Attachment to Section 13283N as listed in 1.a. above
Dwgs. listed in 1.d. above

U.S. Army Engineer District, Omaha
Corps of Engineers
106 South 15th Street
Omaha, Nebraska 68102-1618

10 October 2003
MFS/4411

BIDDING SCHEDULE

<u>Item No.</u>	<u>Description</u>	<u>Estimated Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Amount</u>
1.	Entire work complete for for Painting the 1 st set of 2 Surge Tank Floors	LS	Job	\$ _____	\$ _____
2.	Entire work complete for Repair Pits for 1 st set of 2 Surge Tank Floors				
	a) First 400 pits	LS	Job	\$ _____	\$ _____
	b) Over 400 pits	60	each	\$ _____	\$ _____
3.	Entire work complete for for Painting the 2nd set of 2 Surge Tank Floors	LS	Job	\$ _____	\$ _____
4.	Entire work complete for Repair Pits for 2 nd set of 2 Surge Tank Floors				
	a) First 400 pits	LS	Job	\$ _____	\$ _____
	b) Over 400 pits	60	each	\$ _____	\$ _____
5.	Entire work complete for for Painting the 3rd set of 2 Surge Tank Floors	LS	Job	\$ _____	\$ _____
6.	Entire work complete for Repair Pits for 3rd set of 2 Surge Tank Floors				
	a) First 400 pits	LS	Job	\$ _____	\$ _____
	b) Over 400 pits	60	each	\$ _____	\$ _____
7.	Entire work complete for for Painting the 4th set of 2 Surge Tank Floors	LS	Job	\$ _____	\$ _____
8.	Entire work complete for Repair Pits for 4th set of 2 Surge Tank Floors				
	a) First 400 pits	LS	Job	\$ _____	\$ _____
	b) Over 400 pits	60	each	\$ _____	\$ _____
9.	Entire work complete for for Painting the 5th set of 2 Surge Tank Floors	LS	Job	\$ _____	\$ _____

10.	Entire work complete for Repair Pits for 5 th set of 2 Surge Tank Floors				
	a) First 400 pits	LS	Job	\$ _____	\$ _____
	b) Over 400 pits	60	each	\$ _____	\$ _____
11.	Entire work complete for for Painting the 6th set of 2 Surge Tank Floors	LS	Job	\$ _____	\$ _____
12.	Entire work complete for Repair Pits for 6th set of 2 Surge Tank Floors				
	a) First 400 pits	LS	Job	\$ _____	\$ _____
	b) Over 400 pits	60	each	\$ _____	\$ _____
14.	Entire work complete for for Painting the 7th set of 2 Surge Tank Floors	LS	Job	\$ _____	\$ _____
15.	Entire work complete for Repair Pits for 7th set of 2 Surge Tank Floors				
	a) First 400 pits	LS	Job	\$ _____	\$ _____
	b) Over 400 pits	60	each	\$ _____	\$ _____
16.	All costs for Mobilization	4	each	\$ _____	\$ _____
17.	All costs for De-Mobilization	4	each	\$ _____	\$ _____
18.	All remaining work	LS	Job	---	\$ _____
				Total Amount \$	_____

Notes:

1. Bid prices must be entered for all items of the schedule. Bids submitted without bid prices being entered on individual items will be rejected.

2. A modification to a bid, which provides for a single adjustment to the amounts bid should state the application of the adjustment to each respective price affected. If the modification is not so apportioned, the single adjustment will be applied to Item No. 18.

3. Measurement and Payment

3.1 Bid Item: Entire Work Complete for Painting Tanks:

3.1.1. Work Included: The work of this item shall include but not be limited to furnishing all labor, materials, and equipment and performing all operations necessary to complete the painting of the tanks as shown on the drawings and in the specification. Which

includes all painting, sandblasting and ventilation. (All work related to pit repair is not included in the bid item.)

3.1.2 Measurement: Lump Sum

3.1.3 Payment: Payment for this item shall be lump sum bid, on a progressive basis, based on the percentage of work completed.

3.2 Bid Item: Entire work complete for Repair Pits

3.2.1 Work Included: The work of this item shall include but not be limited to furnishing all labor, materials, and equipment and performing all operations necessary to complete the repair of pits in each set of tanks (up to 400 pits per set of tanks). Which includes all preparatory work for each pit, followed by the welding, grinding smooth and priming each pit for painting, as specified in the drawings and specifications.

3.2.2 Measurement: Lump Sum

3.2.3 Payment: Payment for this item shall be lump sum bid, on a progressive basis, based on the percentage of work completed.

3.3 Additional 60 pits.

3.3.1 Measurement: each

3.3.2 Payment: Applicable unit price times the number of pits repaired.

3.4 All Remaining Work

3.4.1 Work Included: The work of this item shall include but not be limited to labor and equipment needed for the existing riser modifications and all other remaining work incidental to the project.

3.4.2 Measurement: Lump Sum

3.4.3 Payment: Payment for this item shall be lump sum bid, on a progressive basis, based on the percentage of work completed.

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
ENVIRONMENTAL CHEMISTRY BRANCH
OMAHA, NEBRASKA 68102

23 MAY 02

Subject: Certificate of Analysis

Project: Oahe (Risers) - Paint Chip Samples, SD

Intended Use: Special

Source of Material: _____

Submitted by: Cecil Carroll, CENWO-PM-P

Date Sampled: 31 May 02 Date Received: 31 May 02

Method of Test or Specification: See attached test result sheets

References: Omaha District Request

-- REMARKS --

1. Review comments for project data are presented on the following pages.
2. Sample receipt information and analytical data are provided in the following parts of the report.

Part A: Sample Receipt Information (1 page)
Part B: Chain-of-Custody Information (2 pages)
Part C: Analytical Test Results (11 pages)

Submitted by:

for Laura Percifield
DOUGLAS B. TAGGART
Chief, Chemistry Quality
Assurance Branch

LP 10/23/02
Percifield/glm/444-4313

TEST RESULTS

1. SUMMARY

ECB compiled the data package according to the USACE HTRW minimum chemistry reporting requirements. ECB performed the analyses using EPA methods. Proper quality control procedures were followed and documented. The method quality control results outlined below support the usability of the data.

2. DISCUSSION

- a. One paint chip sample was received by ECB on 31 May 02. The sample was analyzed for the following:
- PCB by EPA method 8082.
 - Metals by EPA method 6010 for cadmium and lead.

The methods are from SW-846 (1986), "Test Methods for Evaluation of Solid Waste."

Part "A" of this report lists all of the samples received.

- b. The following shipping and chain-of-custody errors were noted for the sample shipment received by ECB.

- 1) The sample was not sealed in a plastic bag.
- 2) Only the project name was on the sample label.

Part "B" of this report contains the chain-of-custody information.

- c. The samples were analyzed by ECB.

Part "C" of this report lists the analytical test results.

3. METHOD QUALITY CONTROL

a. PCB:

- 1) Both surrogate spike recoveries were outside acceptable limits for sample RISER #2 and the method blank (pages C1 and C3).
- 2) The method blanks were free of contamination.
- 3) Laboratory duplicate results matched the results from the original field samples.
- 4) Matrix spike/matrix spike duplicate (MS/MSD) recoveries were within acceptable limits. Relative percent differences (RPD) for MS/MSD recoveries were within acceptable limits except in one instance when the RPD for aroclor-1016 was above acceptable limits (page C5).
- 5) Laboratory control sample (LCS) recoveries were within acceptable limits.
- 6) Holding times were met.

b. Metals:

- 1) The method blanks were free of contamination.
- 2) Laboratory duplicate results matched the results from the original field samples.
- 3) The MS/MSD recoveries were within acceptable limits. RPD for MS/MSD recoveries were within acceptable limits.
- 4) LCS recoveries were within acceptable limits.
- 5) Holding times were met.

A1

PART A

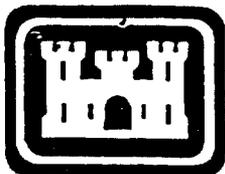
SAMPLE RECEIPT INFORMATION

<u>Sample Number</u>	<u>Customer Sample ID</u>	<u>Date Sampled</u>	<u>Matrix</u>	<u>ECB # Assigned</u>	<u>Tests Assigned</u>	<u>Test Results Page Number</u>
001	RISER #2	31 May 02	Solid	M020467-001 M020467-001	Metals PCB	C7 C1

PART B

CHAIN-OF-CUSTODY INFORMATION

Page No.	Chain-of-Custody No.	Date Signed
81	3967	05 Jun 02



COOLER RECEIPT FORM Chemistry Quality Assurance Branch Laboratory

LIMS # 60639 CQAB Cooler # _____ Number of Coolers _____ Contractor Cooler _____

Project: Care Risers Date received: 6/5/02

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONCERNING CHECK-IN PROBLEMS.

A. PRELIMINARY EXAMINATION PHASE: Date cooler opened: 6/5/02 C-of-C Number: 3967
by (print) Shelley Swink (sign) Shelley Swink

1. Did cooler come with a shipping slip (air bill, etc.)? YES NO
If YES, enter carrier name & air bill number here: hand carried

2. Were custody seals on outside of cooler? 41 ziploc bags YES NO
How many & where: _____ seal date: _____ seal name: _____

3. Were custody seals unbroken and intact at the date and time of arrival? YES NO

4. Did you screen samples for radioactivity using the Geiger Counter? YES NO

5. Were custody papers sealed in a plastic bag & taped inside to the lid? YES NO

6. Were custody papers filled out in the appropriate place? no LIMS# YES NO

7. Did you sign custody papers in the appropriate place? YES NO

8. Was project identifiable from custody papers? YES NO

9. Type of ice: _____ Temperature: N/A Date temperature measured: _____

10. Describe type of packing in cooler: _____

11. Were all bottles sealed in separate plastic bags? YES NO

B. LOG-IN-PHASE: Date samples were logged-in: 6/6/02
by (print) Shelley Swink (sign) Shelley Swink

12. Did all bottles arrive unbroken & were labels in good condition? YES NO

13. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? project name YES NO

14. Did all bottle labels agree with custody papers? only YES NO

15. Were correct containers used for the tests indicated? YES NO

16. Were correct preservatives added to samples? no YES NO

17. Was a sufficient amount of sample sent for tests indicated? YES NO

18. Was headspace absent in volatile samples? If NO, list by QA#: _____ YES NO

19. Were the custody papers checked against the sample receipt form? By whom? JP Date: 6/10/02

PART C

ANALYTICAL TEST RESULTS

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DEPARTMENT OF THE ARMY
Corps of Engineers
Environmental Chemistry Branch
Omaha Laboratory

PCBs Sample Report

Project Name: Oahe (Risers) - Paint Chip Sam	Date Sampled: 05/31/02	Matrix: Solid
Project Number: 6639	Date Received: 06/05/02	Units: ug/kg
Client Sample ID: RISER #2	Date Reported: 07/17/02	Sample Amount: 0.195 g
CQAB Sample ID : M020467-001		% Solids: 100
Analyst: Woster	Date Extracted: 06/13/02	Dilution Factor: 1
Method: SW-846 3540B/8082	Date Analyzed : 07/04/02	Batch ID: WG10529

CAS Number	Target Analyte	Result	Sample Reporting Limit	Sample Detection Limit
12674-11-2	Aroclor-1016	u	2600	510
1104-28-2	Aroclor-1221	u	2600	510
11141-16-5	Aroclor-1232	u	2600	510
53469-21-9	Aroclor-1242	u	2600	510
12672-29-6	Aroclor-1248	u	2600	510
11097-69-1	Aroclor-1254	u	2600	510
11096-82-5	Aroclor-1260	u	2600	510

u: Compound was analyzed for but not detected at or above the sample reporting limit

*: Indicates the value is outside acceptance limits.

Laboratory Comments:

Quality Control

Surrogate Standard	Recovery (%)	Acceptable	Spike (ug/kg)
Decachlorobiphenyl	37 *	60-150	20
Tetrachloro-meta-xylene	40 *	52-143	20

Method Blank : WG10529-1
PCB Matrix Spike : WG10529-4

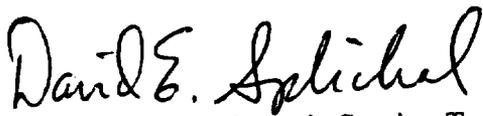
Laboratory Duplicate : WG10529-3
PCB Matrix Spike Duplicate : WG10529-5

PCB LCS : WG10529-2

Narrative for WG10529 – PCB Analysis
Project name: Oahe (Risers) – Paint Chips
Project number: 6639

Two continuing calibration verification (CCV) standards for PCB analysis were analyzed in this batch. In the first CCV, both Aroclor-1016 and Aroclor-1260 calculated within the method limit of +/-15% difference when compared to the initial calibration curve. Aroclor-1260 (-26% difference) calculated low in the last CCV when compared to the initial calibration curve (the method limit is +/-15). The significance on data usability of the low response will occur close to the method detection limit, but the sample reporting limit should not be affected.

The method blank prepared with this batch showed surrogate recoveries outside of acceptable limits (recoveries were low). This was also observed for sample RISER #2 (ECB lab number: M020467-001). One surrogate was also recovered low in the laboratory duplicate. The significance on data usability of the low recoveries will occur close to the method detection limit, but the sample reporting limit should not be affected. The sample reporting limits should be used for site specific decision making.



David E. Splichal, Organic Section Team Leader

C4

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Environmental Chemistry Branch
Omaha Laboratory

PCBs Laboratory Matrix Duplicate Report

LD Sample ID: WG10529-3	Date Reported: 07/17/02	Matrix: Soil
Sample ID: M020485-001		Units: ug/kg
		Sample Amount: 25.2 g
		* Solids: 96.5

Analyst: Woster	Date Extracted: 06/13/02	Batch ID: WG10529
Method: SW-846 3540B/8081	Date Analyzed: 07/04/02	

CAS Number	Target Analyte	Sample Result	LD Result	Sample Reporting Limit	Sample Detection Limit	RPD	QC Limits
12674-11-2	Aroclor-1016	u	u	21	4	NC	35
1104-28-2	Aroclor-1221	u	u	21	4	NC	35
11141-16-5	Aroclor-1232	u	u	21	4	NC	35
53469-21-9	Aroclor-1242	u	u	21	4	NC	35
12672-29-6	Aroclor-1248	u	u	21	4	NC	35
11097-69-1	Aroclor-1254	u	u	21	4	NC	35
11096-82-5	Aroclor-1260	u	u	21	4	NC	51

u: Compound was analyzed for but not detected at or above the sample reporting limit
 NC: Not Calculable

*: Indicates the value is outside acceptance limits.
 Laboratory Comments:

$$RPD = (|Sample\ Result - LD\ Result| \times 100) / ((Sample\ Result + LD\ Result) / 2)$$

Quality Control

Surrogate Standard	Recovery (%)		Acceptable	Spike (ug/kg)	RPD	QC Limits
	Sample	LD				
Decachlorobiphenyl	106	75	60-150	20	35	54
Tetrachloro-meta-xylene	81	31 *	52-143	20	89 *	54

CS

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Omaha Laboratory

PCBs Matrix Spike/Matrix Spike Duplicate

MS Sample ID: WG10529-4
MSD Sample ID: WG10529-5
Sample ID: M020485-001
Date Reported: 07/17/02
Matrix: Soil
Units: ug/kg
% Solids: 96.5
Analyst: Woster
Method: SW-846 3540B/8082
Date Extracted: 06/13/02
Date Analyzed: 07/04/02
Batch ID: WG10529

CAS Number	Target Analyte	Sample Result	Spike Added	Conc MS	%Rec MS	QC Limits	Conc MSD	%Rec MSD	RPD	RPD Limits
12674-11-2	Aroclor-1016	u	210	260	124	60-141	160	79	44 *	35
1104-28-2	Aroclor-1221	u	NS	u	NC	60-141	u	NC	NC	35
11141-16-5	Aroclor-1232	u	NS	u	NC	60-141	u	NC	NC	35
53469-21-9	Aroclor-1242	u	NS	u	NC	60-141	u	NC	NC	35
12672-29-6	Aroclor-1248	u	NS	u	NC	60-141	u	NC	NC	35
11097-69-1	Aroclor-1254	u	NS	u	NC	60-141	u	NC	NC	35
11096-82-5	Aroclor-1260	u	210	200	95	41-149	150	70	30	51

u: Compound was analyzed for but not detected at or above the sample reporting limit
NC: Not Calculable

*: Indicates the value is outside acceptance limits.
NS: Compound not spiked.

Laboratory Comments:

RPD = (|MS Result - MSD Result| x 100) / ((MS Result + MSD Result) / 2)
Normal sample amount is 25 g.

Quality Control

Surrogate Standard	Recovery (%)		Acceptable	Spike (ug/kg)	RPD	QC Limits
	MS	MSD				
Decachlorobiphenyl	107	80	60-150	20	28	54
Tetrachloro-meta-xylene	98	60	52-143	20	48	54

FAX: (402) 341-5448
PHONE: (402) 444-4300

06

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Corps of Engineers
Environmental Chemistry Branch
Omaha Laboratory

PCBs Laboratory Control Sample

LCS ID: WG10529-2 Date Reported: 07/17/02 Matrix: Soil
Units: ug/kg

Analyst: Woster Date Extracted: 06/13/02 Batch ID: WG10529
Method: SW-846 35403/8081 Date Analyzed: 07/06/02

CAS Number	Compound	Result	True Value	Sample Detection Limit	Sample Reporting Limit	% Rec	Acceptance Limits (%)
12674-11-2	Aroclor-1016	170	200	4	20	87	60-141
1104-28-2	Aroclor-1221	u	NS	4	20	NC	60-141
11141-16-5	Aroclor-1232	u	NS	4	20	NC	60-141
53469-21-9	Aroclor-1242	u	NS	4	20	NC	60-141
12672-29-6	Aroclor-1248	u	NS	4	20	NC	60-141
11097-69-1	Aroclor-1254	u	NS	4	20	NC	60-141
11096-82-5	Aroclor-1260	140	200	4	20	71	41-149

u: Compound was analyzed for but not detected at or above the sample reporting limit
NC: Not Calculable

NS: Compound not spiked.
Laboratory Comments:

Quality Control			
Surrogate Standard	Recovery (%)	Acceptable	Spike (ug/kg)
Decachlorobiphenyl	91	60-150	20.
Tetrachloro-meta-xylene	74	52-143	20.

420 South 18th Street Omaha, NE 68102

FAX: (402) 341-5448
PHONE: (402) 444-4300

C9

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Total Metals

Project Name: Oahe (Risers) - Paint Chip Samples	Date Sampled: 05/31/02	Matrix: Solid
Project Number: 6639	Date Received: 06/05/02	Units: mg/kg
Client Sample ID: RISER #2	Date Reported: 06/19/02	% Solids:
Sample ID: M020467-001		

CAS Number	Analyte	Dilution	Result	Sample Quant Limit	Sample Det Limit	Method	Batch ID	Date Digested	Date Analyzed	Analyst
7440-43-9	Cadmium	500	u	250	50	EPA 6010B	WG10572	06-17-02	06-18-02	Shannon
7439-92-1	Lead	500	233000	1000	200	EPA 6010B	WG10572	06-17-02	06-18-02	Shannon

u: Analyte was analyzed for but not detected at or above the sample reporting limit

Quality Assurance / Quality Control

ICP Method Blank ID: WG10572-1	ICP LCS ID: WG10572-2	ICP MS ID: WG10572-4
GFAA Method Blank ID: NA	GFAA LCS ID: NA	GFAA MS ID: NA
CVAA Method Blank ID: NA	CVAA LCS ID: NA	CVAA MS ID: NA
	ICP LD ID: WG10572-3	ICP MSD ID: WG10572-5
	GFAA LD ID: NA	GFAA MSD ID: NA
	CVAA LD ID: NA	CVAA MSD ID: NA

C8

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Method Blank

Method Blank ICP Sample ID: WG10572-1
Method Blank GFAA Sample ID:
Method Blank CVAA Sample ID:

Matrix: Soil
Units: mg/kg

CAS Number	Analyte	Result	Sample Quant Limit	Sample Det Limit	Method	Batch ID	Date Digested	Date Analyzed	Analyst
7440-43-9	Cadmium	u	0.50	0.1	EPA 6010B	WG10572	06-17-02	06-18-02	Shannon
7439-92-1	Lead	u	2.0	0.4	EPA 6010B	WG10572	06-17-02	06-18-02	Shannon

u: Analyte was analyzed for but not detected at or above the sample reporting limit

C9

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Laboratory Matrix Duplicate

Matrix Duplicate ICP Sample ID: WG10572-3
Matrix Duplicate GFAA Sample ID:
Matrix Duplicate CVAA Sample ID:

Matrix: Soil
Units: mg/kg

CAS Number	Analyte	Sample Result	Dup Result	RPD	Sample Quant Limit	Sample Det Limit	Method	Batch ID	Date Digested	Date Analyzed	Analyst
7440-43-9	Cadmium	u	u	NC	0.50	0.1	EPA 6010B	WG10572	06-17-02	06-18-02	Shannon
7439-92-1	Lead	7.9	7.8	1.3	2.0	0.4	EPA 6010B	WG10572	06-17-02	06-18-02	Shannon

u: Analyte was analyzed for but not detected at or above the sample reporting limit
NC: Not Calculable
B: Analyte also present in the method blank.

QC Sample: M020495-002

C10

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Matrix Spike, Matrix Spike Duplicate

MS ICP Sample ID:	WG10572-4	MSD ICP Sample ID:	WG10572-5	Matrix: Soil
MS GFAA Sample ID:		MSD GFAA Sample ID:		Units: mg/kg
MS CVAA Sample ID:		MSD CVAA Sample ID:		

CAS Number	Analyte	Sample Result	MS Conc	Spike Added	%Rec MS	MSD Conc	%Rec MSD	RPD	Method	Date Digested	Date Analyzed	Analyst
7440-43-9	Cadmium	u	46.3	50.0	92.6	46.6	93.3	0.7	EPA 6010B	06-17-02	06-18-02	Shannon
7439-92-1	Lead	7.9	101.	100.	93.1	102.	94.4	1.3	EPA 6010B	06-17-02	06-18-02	Shannon

%Rec: Percent of the spike recovered from the matrix

u: Below Method Detection Limit

* Indicates the value is outside control limits (80-120) for %Rec.

*% = High analyte concentration prevented accurate determination of the matrix spike recovery.

B: Analyte also present in method blank

QC Sample: M020495-002

C11

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Laboratory Control Sample

LCS ICP Sample ID: WG10572-2 Matrix: Soil
LCS GFAA Sample ID: Units: mg/kg
LCS CVAA Sample ID:

CAS Number	Analyte	LCS Result	True Value	%Rec	Sample Quant Limit	Sample Det Limit	Method	Batch ID	Date Digested	Date Analyzed	Analyst
7440-43-9	Cadmium	49.7	50.0	99.4	0.50	0.1	EPA 6010B	WG10572	06-17-02	06-18-02	Shannon
7439-92-1	Lead	98.2	100.	98.2	2.0	0.4	EPA 6010B	WG10572	06-17-02	06-18-02	Shannon