

Beggs, Tauren R - DNR

From: Beggs, Tauren R - DNR
Sent: Friday, October 02, 2015 9:58 AM
To: 'Halbur, Kathy'
Subject: RE: PRELIMINARY Aniwa Arsenic Sample Results

Very good to see! Thanks

We are committed to service excellence.
Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Tauren Beggs
Phone: (920) 662-5178
Tauren.Beggs@wisconsin.gov

From: Halbur, Kathy [mailto:halbur.kathy@epa.gov]
Sent: Thursday, October 01, 2015 8:37 AM
To: Beggs, Tauren R - DNR
Subject: PRELIMINARY Aniwa Arsenic Sample Results

Hi Tauren:

This will all be in the report, but thought you would be interested to see the preliminary results. Looks like the removal had the desired effect. Let me know if you have any questions or concerns.

Kathy

From: Kondreck, Robert [mailto:robert.kondreck@tetratech.com]
Sent: Wednesday, September 30, 2015 4:34 PM
To: Halbur, Kathy
Cc: Mark Douglas (mdouglas@eqm.com)
Subject: Aniwa Arsenic Sample Results

Hi Kathy,

EQM received preliminary (Level II) Aniwa Arsenic results this afternoon. Big picture summary is provided below:

- Confirmation sample from B-2 (2,500 ppm Arsenic) came down to 340 ppm Arsenic.
- Surface water samples were non-detect for arsenic
- Arsenic in sediment samples increased from non-detect (<2.4 ppm) to 22 ppm in SED-01 and 4.2 ppm in SED-02
- Groundwater in the source area (B-13/B-13R) decreased from 8,500 ppb to 98 ppb but increased downgradient (B-12 [270 to 540] & B-21 [5.2 to 13 ppb])

My explanation:

- 2,500 ppm Arsenic in soil was artificially high due to groundwater influence therefore 340 is more reflective of actual conditions but still may have GW influence if collected near 12 feet.
- It's doubtful that removal activities affected sediment samples since there was a silt fence between the excavation and sample location. In addition that is where we had the stockpile of clean fill (SED-01). These samples could be the result of heterogeneous sediment/soils.
- Groundwater decrease directly related to removal of source material. An increase in downgradient concentrations may be the result of rainwater flushing or seasonal variations.

Mostly good news, hopefully this is helpful.

Rob

Robert Kondreck, PG | Geologist

Direct: 312.201.7479 | Cell: 773.563.3502 | Fax: 312.201.0031

robert.kondreck@tetrtech.com

Tetra Tech | Chicago Office

1 S. Wacker Drive 37th Floor | Chicago, IL 60606 | www.tetratech.com



30-Sep-2015

Erik Corbin
Environmental Quality Management, Inc.
1800 Carillon Blvd
Cincinnati, OH 45240

Re: Aniwa Arsenic

Work Order: 15091295

Dear Erik,

ALS Environmental received 13 samples on 23-Sep-2015 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 35.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Carey".

Electronically approved by: Bill Carey

Bill Carey
Project Manager



Certificate No: OH: CL 103

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Environmental Quality Management, Inc.
Project: Aniwa Arsenic
Work Order: 15091295

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
15091295-01	B-12-0915	Groundwater		9/21/2015 15:30	9/23/2015 09:30	<input type="checkbox"/>
15091295-02	B-20-0915	Groundwater		9/21/2015 14:40	9/23/2015 09:30	<input type="checkbox"/>
15091295-03	B-20-0915-D	Groundwater		9/21/2015 14:40	9/23/2015 09:30	<input type="checkbox"/>
15091295-04	B-10-0915	Groundwater		9/21/2015 14:10	9/23/2015 09:30	<input type="checkbox"/>
15091295-05	B-11-0915	Groundwater		9/21/2015 13:15	9/23/2015 09:30	<input type="checkbox"/>
15091295-06	B-21-0915	Groundwater		9/21/2015 10:45	9/23/2015 09:30	<input type="checkbox"/>
15091295-07	SS-11-0915	Soil		9/21/2015 11:35	9/23/2015 09:30	<input type="checkbox"/>
15091295-08	Sed-01-0915	Sediment		9/22/2015 09:25	9/23/2015 09:30	<input type="checkbox"/>
15091295-09	SW-01-0915	Surface Wate		9/22/2015 09:20	9/23/2015 09:30	<input type="checkbox"/>
15091295-10	Sed-02-0915	Sediment		9/22/2015 09:35	9/23/2015 09:30	<input type="checkbox"/>
15091295-11	SW-02-0915	Surface Wate		9/22/2015 09:30	9/23/2015 09:30	<input type="checkbox"/>
15091295-12	B-13R-0915	Groundwater		9/22/2015 11:35	9/23/2015 09:30	<input type="checkbox"/>
15091295-13	B-19R-0915	Groundwater		9/22/2015 11:00	9/23/2015 09:30	<input type="checkbox"/>

Client: Environmental Quality Management, Inc.
Project: Aniwa Arsenic
WorkOrder: 15091295

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter

Client: Environmental Quality Management, Inc.
Project: Aniwa Arsenic
Work Order: 15091295

Case Narrative

Samples for the above noted Work Order were received on 9/23/2015. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Metals:

Batch 76460, Method ICP_6020_S, Sample 15091295-07AMS: The MS recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Al, Sb, As, Ca, Fe, Mg, Mn

Batch 76460, Method ICP_6020_S, Sample 15091295-07AMS: The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: K

Batch 76460, Method ICP_6020_S, Sample 15091295-07AMS: The matrix spike recovery was outside of the control limit. However, the matrix spike duplicate recovery and the RPD between the MS and MSD were in control. No qualification is required for this analyte: Cu

Batch 76460, Method ICP_6020_S, Sample 15091295-07AMSD: The MSD recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Al, As, Ca, Mg, Mn

Batch 76460, Method ICP_6020_S, Sample 15091295-07AMSD: The MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte: Ba, Cr, V

Batch 76460, Method ICP_6020_S, Sample 15091295-07AMSD: The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: K

Client: Environmental Quality Management, Inc.
Project: Aniwa Arsenic
Work Order: 15091295

Case Narrative

Batch 76556, Method ICP_6020_W, Sample 15091295-04AMS: The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Al

Batch 76556, Method ICP_6020_W, Sample 15091295-04AMSD: The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Al

Wet Chemistry:

No other deviations or anomalies were noted.

ALS Group USA, Corp

WorkOrder: 15091295

Sample Tracking

SampID	Client Samp ID	Action	Date	Person	NewLocation
15091295-01A	B-12-0915	Login	9/23/2015 12:58:27 PM	KRW	CLR1
15091295-02A	B-20-0915	Login		KRW	CLR1
15091295-03A	B-20-0915-D	Login		KRW	CLR1
15091295-04A	B-10-0915	Login		KRW	CLR1
15091295-05A	B-11-0915	Login		KRW	CLR1
15091295-06A	B-21-0915	Login		KRW	CLR1
15091295-07A	SS-11-0915	Login		KRW	CLR1
15091295-08A	Sed-01-0915	Login		KRW	CLR1
15091295-09A	SW-01-0915	Login		KRW	CLR1
15091295-10A	Sed-02-0915	Login		KRW	CLR1
15091295-11A	SW-02-0915	Login		KRW	CLR1
15091295-12A	B-13R-0915	Login		KRW	CLR1
15091295-13A	B-19R-0915	Login		KRW	CLR1
15091295-07A	SS-11-0915	Transfer	9/23/2015 1:31:03 PM	SEG	SEG
15091295-08A	Sed-01-0915	Transfer		SEG	SEG
15091295-10A	Sed-02-0915	Transfer		SEG	SEG
15091295-01A	B-12-0915	Transfer	9/25/2015 6:50:07 AM	BL	BL
15091295-02A	B-20-0915	Transfer		BL	BL
15091295-03A	B-20-0915-D	Transfer		BL	BL
15091295-04A	B-10-0915	Transfer		BL	BL
15091295-05A	B-11-0915	Transfer		BL	BL
15091295-06A	B-21-0915	Transfer		BL	BL
15091295-07A	SS-11-0915	Transfer		BL	BL
15091295-08A	Sed-01-0915	Transfer		BL	BL
15091295-09A	SW-01-0915	Transfer		BL	BL
15091295-10A	Sed-02-0915	Transfer		BL	BL
15091295-11A	SW-02-0915	Transfer		BL	BL
15091295-12A	B-13R-0915	Transfer		BL	BL
15091295-13A	B-19R-0915	Transfer		BL	BL
15091295-01A	B-12-0915	Transfer	9/25/2015 8:52:50 AM	BL	LR
15091295-02A	B-20-0915	Transfer		BL	LR
15091295-03A	B-20-0915-D	Transfer		BL	LR
15091295-04A	B-10-0915	Transfer		BL	LR
15091295-05A	B-11-0915	Transfer		BL	LR
15091295-06A	B-21-0915	Transfer		BL	LR
15091295-09A	SW-01-0915	Transfer		BL	LR
15091295-11A	SW-02-0915	Transfer		BL	LR
15091295-12A	B-13R-0915	Transfer		BL	LR
15091295-13A	B-19R-0915	Transfer		BL	LR
15091295-01A	B-12-0915	Transfer	9/25/2015 8:53:04 AM	BL	CLR1
15091295-02A	B-20-0915	Transfer		BL	CLR1
15091295-03A	B-20-0915-D	Transfer		BL	CLR1
15091295-04A	B-10-0915	Transfer		BL	CLR1
15091295-05A	B-11-0915	Transfer		BL	CLR1
15091295-06A	B-21-0915	Transfer		BL	CLR1
15091295-07A	SS-11-0915	Transfer		BL	CLR1
15091295-08A	Sed-01-0915	Transfer		BL	CLR1

ALS Group USA, Corp**Sample Tracking**

WorkOrder: 15091295

SampID	Client Samp ID	Action	Date	Person	NewLocation
15091295-09A	SW-01-0915	Transfer	9/25/2015 8:53:04 AM	BL	CLR1
15091295-10A	Sed-02-0915	Transfer		BL	CLR1
15091295-11A	SW-02-0915	Transfer		BL	CLR1
15091295-12A	B-13R-0915	Transfer		BL	CLR1
15091295-13A	B-19R-0915	Transfer		BL	CLR1
15091295-01A	B-12-0915	Transfer	9/25/2015 8:56:41 AM	BL	LR
15091295-02A	B-20-0915	Transfer		BL	LR
15091295-03A	B-20-0915-D	Transfer		BL	LR
15091295-04A	B-10-0915	Transfer		BL	LR
15091295-05A	B-11-0915	Transfer		BL	LR
15091295-06A	B-21-0915	Transfer		BL	LR
15091295-09A	SW-01-0915	Transfer		BL	LR
15091295-11A	SW-02-0915	Transfer		BL	LR
15091295-12A	B-13R-0915	Transfer		BL	LR
15091295-13A	B-19R-0915	Transfer		BL	LR
15091295-01A	B-12-0915	Transfer	9/25/2015 5:03:07 PM	LR	CLR1
15091295-02A	B-20-0915	Transfer		LR	CLR1
15091295-03A	B-20-0915-D	Transfer		LR	CLR1
15091295-04A	B-10-0915	Transfer		LR	CLR1
15091295-05A	B-11-0915	Transfer		LR	CLR1
15091295-06A	B-21-0915	Transfer		LR	CLR1
15091295-09A	SW-01-0915	Transfer		LR	CLR1
15091295-11A	SW-02-0915	Transfer		LR	CLR1
15091295-12A	B-13R-0915	Transfer		LR	CLR1
15091295-13A	B-19R-0915	Transfer		LR	CLR1
15091295-07A	SS-11-0915	Transfer	9/27/2015 8:16:24 PM	LR	LR
15091295-08A	Sed-01-0915	Transfer		LR	LR
15091295-10A	Sed-02-0915	Transfer		LR	LR
15091295-07A	SS-11-0915	Transfer	9/28/2015 12:43:09 PM	LR	CLR1
15091295-08A	Sed-01-0915	Transfer		LR	CLR1
15091295-10A	Sed-02-0915	Transfer		LR	CLR1

ALS Group USA, Corp

Date: 30-Sep-15

Client: Environmental Quality Management, Inc.

Project: Aniwa Arsenic

Work Order: 15091295

Sample ID: B-12-0915

Lab ID: 15091295-01

Collection Date: 9/21/2015 03:30 PM

Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA						
Mercury	ND		0.00020	mg/L	1	9/26/2015 09:43 PM
METALS BY ICP-MS						
Aluminum	0.059		0.010	mg/L	1	9/28/2015 02:08 PM
Antimony	ND		0.0050	mg/L	1	9/25/2015 07:38 PM
Arsenic	0.54		0.0050	mg/L	1	9/25/2015 07:38 PM
Barium	0.011		0.0050	mg/L	1	9/25/2015 07:38 PM
Beryllium	ND		0.0020	mg/L	1	9/25/2015 07:38 PM
Cadmium	ND		0.0020	mg/L	1	9/25/2015 07:38 PM
Calcium	63		0.50	mg/L	1	9/25/2015 07:38 PM
Chromium	ND		0.0050	mg/L	1	9/25/2015 07:38 PM
Copper	ND		0.0050	mg/L	1	9/25/2015 07:38 PM
Iron	ND		0.080	mg/L	1	9/26/2015 06:09 PM
Lead	ND		0.0050	mg/L	1	9/25/2015 07:38 PM
Magnesium	35		0.20	mg/L	1	9/25/2015 07:38 PM
Manganese	0.0066		0.0050	mg/L	1	9/25/2015 07:38 PM
Nickel	ND		0.0050	mg/L	1	9/25/2015 07:38 PM
Potassium	0.35		0.20	mg/L	1	9/25/2015 07:38 PM
Selenium	ND		0.0050	mg/L	1	9/25/2015 07:38 PM
Silver	ND		0.0050	mg/L	1	9/25/2015 07:38 PM
Sodium	2.0		0.20	mg/L	1	9/25/2015 07:38 PM
Thallium	ND		0.0050	mg/L	1	9/25/2015 07:38 PM
Vanadium	ND		0.0050	mg/L	1	9/25/2015 07:38 PM
Zinc	ND		0.010	mg/L	1	9/25/2015 07:38 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 30-Sep-15

Client: Environmental Quality Management, Inc.

Project: Aniwa Arsenic

Work Order: 15091295

Sample ID: B-20-0915

Lab ID: 15091295-02

Collection Date: 9/21/2015 02:40 PM

Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			SW7470			
Mercury	ND		0.00020	mg/L	1	9/26/2015 09:46 PM
METALS BY ICP-MS			SW6020A		Prep: SW3005A / 9/25/15	Analyst: ML
Aluminum	0.011		0.010	mg/L	1	9/28/2015 02:14 PM
Antimony	ND		0.0050	mg/L	1	9/25/2015 07:44 PM
Arsenic	ND		0.0050	mg/L	1	9/25/2015 07:44 PM
Barium	0.017		0.0050	mg/L	1	9/25/2015 07:44 PM
Beryllium	ND		0.0020	mg/L	1	9/25/2015 07:44 PM
Cadmium	ND		0.0020	mg/L	1	9/25/2015 07:44 PM
Calcium	49		0.50	mg/L	1	9/25/2015 07:44 PM
Chromium	ND		0.0050	mg/L	1	9/25/2015 07:44 PM
Copper	ND		0.0050	mg/L	1	9/25/2015 07:44 PM
Iron	ND		0.080	mg/L	1	9/26/2015 06:15 PM
Lead	ND		0.0050	mg/L	1	9/25/2015 07:44 PM
Magnesium	28		0.20	mg/L	1	9/25/2015 07:44 PM
Manganese	0.025		0.0050	mg/L	1	9/25/2015 07:44 PM
Nickel	ND		0.0050	mg/L	1	9/25/2015 07:44 PM
Potassium	0.70		0.20	mg/L	1	9/25/2015 07:44 PM
Selenium	ND		0.0050	mg/L	1	9/25/2015 07:44 PM
Silver	ND		0.0050	mg/L	1	9/25/2015 07:44 PM
Sodium	2.6		0.20	mg/L	1	9/25/2015 07:44 PM
Thallium	ND		0.0050	mg/L	1	9/25/2015 07:44 PM
Vanadium	ND		0.0050	mg/L	1	9/25/2015 07:44 PM
Zinc	ND		0.010	mg/L	1	9/25/2015 07:44 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 30-Sep-15

Client: Environmental Quality Management, Inc.

Project: Aniwa Arsenic

Work Order: 15091295

Sample ID: B-20-0915-D

Lab ID: 15091295-03

Collection Date: 9/21/2015 02:40 PM

Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA						
Mercury	ND		0.00020	mg/L	1	9/26/2015 09:55 PM
METALS BY ICP-MS						
Aluminum	ND		0.010	mg/L	1	9/28/2015 02:20 PM
Antimony	ND		0.0050	mg/L	1	9/25/2015 07:51 PM
Arsenic	ND		0.0050	mg/L	1	9/25/2015 07:51 PM
Barium	0.017		0.0050	mg/L	1	9/25/2015 07:51 PM
Beryllium	ND		0.0020	mg/L	1	9/25/2015 07:51 PM
Cadmium	ND		0.0020	mg/L	1	9/25/2015 07:51 PM
Calcium	48		0.50	mg/L	1	9/25/2015 07:51 PM
Chromium	ND		0.0050	mg/L	1	9/25/2015 07:51 PM
Copper	ND		0.0050	mg/L	1	9/25/2015 07:51 PM
Iron	ND		0.080	mg/L	1	9/26/2015 06:21 PM
Lead	ND		0.0050	mg/L	1	9/25/2015 07:51 PM
Magnesium	27		0.20	mg/L	1	9/25/2015 07:51 PM
Manganese	0.026		0.0050	mg/L	1	9/25/2015 07:51 PM
Nickel	ND		0.0050	mg/L	1	9/25/2015 07:51 PM
Potassium	0.74		0.20	mg/L	1	9/25/2015 07:51 PM
Selenium	ND		0.0050	mg/L	1	9/25/2015 07:51 PM
Silver	ND		0.0050	mg/L	1	9/25/2015 07:51 PM
Sodium	2.4		0.20	mg/L	1	9/25/2015 07:51 PM
Thallium	ND		0.0050	mg/L	1	9/25/2015 07:51 PM
Vanadium	ND		0.0050	mg/L	1	9/25/2015 07:51 PM
Zinc	ND		0.010	mg/L	1	9/25/2015 07:51 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 30-Sep-15

Client: Environmental Quality Management, Inc.

Project: Aniwa Arsenic

Work Order: 15091295

Sample ID: B-10-0915

Lab ID: 15091295-04

Collection Date: 9/21/2015 02:10 PM

Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			SW7470			
Mercury	ND		0.00020	mg/L	1	9/26/2015 09:58 PM
METALS BY ICP-MS			SW6020A			
Aluminum	0.30		0.010	mg/L	1	9/28/2015 02:27 PM
Antimony	ND		0.0050	mg/L	1	9/25/2015 07:57 PM
Arsenic	ND		0.0050	mg/L	1	9/25/2015 07:57 PM
Barium	0.045		0.0050	mg/L	1	9/25/2015 07:57 PM
Beryllium	ND		0.0020	mg/L	1	9/25/2015 07:57 PM
Cadmium	ND		0.0020	mg/L	1	9/25/2015 07:57 PM
Calcium	8.6		0.50	mg/L	1	9/25/2015 07:57 PM
Chromium	ND		0.0050	mg/L	1	9/25/2015 07:57 PM
Copper	ND		0.0050	mg/L	1	9/25/2015 07:57 PM
Iron	0.90		0.080	mg/L	1	9/26/2015 06:27 PM
Lead	ND		0.0050	mg/L	1	9/25/2015 07:57 PM
Magnesium	3.7		0.20	mg/L	1	9/25/2015 07:57 PM
Manganese	0.20		0.0050	mg/L	1	9/25/2015 07:57 PM
Nickel	ND		0.0050	mg/L	1	9/25/2015 07:57 PM
Potassium	2.7		0.20	mg/L	1	9/25/2015 07:57 PM
Selenium	ND		0.0050	mg/L	1	9/25/2015 07:57 PM
Silver	ND		0.0050	mg/L	1	9/25/2015 07:57 PM
Sodium	1.4		0.20	mg/L	1	9/25/2015 07:57 PM
Thallium	ND		0.0050	mg/L	1	9/25/2015 07:57 PM
Vanadium	ND		0.0050	mg/L	1	9/25/2015 07:57 PM
Zinc	ND		0.010	mg/L	1	9/25/2015 07:57 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 30-Sep-15

Client: Environmental Quality Management, Inc.

Project: Aniwa Arsenic

Work Order: 15091295

Sample ID: B-11-0915

Lab ID: 15091295-05

Collection Date: 9/21/2015 01:15 PM

Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA						
Mercury	ND		0.00020	mg/L	1	9/26/2015 10:05 PM
METALS BY ICP-MS						
Aluminum	ND		0.010	mg/L	1	9/28/2015 02:45 PM
Antimony	ND		0.0050	mg/L	1	9/25/2015 08:59 PM
Arsenic	ND		0.0050	mg/L	1	9/25/2015 08:59 PM
Barium	0.0088		0.0050	mg/L	1	9/25/2015 08:59 PM
Beryllium	ND		0.0020	mg/L	1	9/25/2015 08:59 PM
Cadmium	ND		0.0020	mg/L	1	9/25/2015 08:59 PM
Calcium	61		0.50	mg/L	1	9/25/2015 08:59 PM
Chromium	ND		0.0050	mg/L	1	9/25/2015 08:59 PM
Copper	ND		0.0050	mg/L	1	9/25/2015 08:59 PM
Iron	ND		0.080	mg/L	1	9/26/2015 06:45 PM
Lead	ND		0.0050	mg/L	1	9/25/2015 08:59 PM
Magnesium	34		0.20	mg/L	1	9/25/2015 08:59 PM
Manganese	ND		0.0050	mg/L	1	9/25/2015 08:59 PM
Nickel	ND		0.0050	mg/L	1	9/25/2015 08:59 PM
Potassium	0.37		0.20	mg/L	1	9/25/2015 08:59 PM
Selenium	ND		0.0050	mg/L	1	9/25/2015 08:59 PM
Silver	ND		0.0050	mg/L	1	9/25/2015 08:59 PM
Sodium	2.8		0.20	mg/L	1	9/25/2015 08:59 PM
Thallium	ND		0.0050	mg/L	1	9/25/2015 08:59 PM
Vanadium	ND		0.0050	mg/L	1	9/25/2015 08:59 PM
Zinc	ND		0.010	mg/L	1	9/25/2015 08:59 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 30-Sep-15

Client: Environmental Quality Management, Inc.

Project: Aniwa Arsenic

Work Order: 15091295

Sample ID: B-21-0915

Lab ID: 15091295-06

Collection Date: 9/21/2015 10:45 AM

Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			SW7470			
Mercury	ND		0.00020	mg/L	1	9/26/2015 10:07 PM
METALS BY ICP-MS			SW6020A		Prep: SW3005A / 9/25/15	Analyst: ML
Aluminum	0.47		0.010	mg/L	1	9/25/2015 09:05 PM
Antimony	ND		0.0050	mg/L	1	9/25/2015 09:05 PM
Arsenic	0.013		0.0050	mg/L	1	9/25/2015 09:05 PM
Barium	0.040		0.0050	mg/L	1	9/25/2015 09:05 PM
Beryllium	ND		0.0020	mg/L	1	9/25/2015 09:05 PM
Cadmium	ND		0.0020	mg/L	1	9/25/2015 09:05 PM
Calcium	43		0.50	mg/L	1	9/25/2015 09:05 PM
Chromium	ND		0.0050	mg/L	1	9/25/2015 09:05 PM
Copper	ND		0.0050	mg/L	1	9/25/2015 09:05 PM
Iron	0.46		0.080	mg/L	1	9/26/2015 06:52 PM
Lead	ND		0.0050	mg/L	1	9/25/2015 09:05 PM
Magnesium	20		0.20	mg/L	1	9/25/2015 09:05 PM
Manganese	0.014		0.0050	mg/L	1	9/25/2015 09:05 PM
Nickel	ND		0.0050	mg/L	1	9/25/2015 09:05 PM
Potassium	1.7		0.20	mg/L	1	9/25/2015 09:05 PM
Selenium	ND		0.0050	mg/L	1	9/25/2015 09:05 PM
Silver	ND		0.0050	mg/L	1	9/25/2015 09:05 PM
Sodium	13		0.20	mg/L	1	9/25/2015 09:05 PM
Thallium	ND		0.0050	mg/L	1	9/25/2015 09:05 PM
Vanadium	ND		0.0050	mg/L	1	9/25/2015 09:05 PM
Zinc	ND		0.010	mg/L	1	9/25/2015 09:05 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 30-Sep-15

Client: Environmental Quality Management, Inc.

Project: Aniwa Arsenic

Work Order: 15091295

Sample ID: SS-11-0915

Lab ID: 15091295-07

Collection Date: 9/21/2015 11:35 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA						
Mercury	0.016		0.014	mg/Kg-dry	1	9/28/2015 05:29 PM
METALS BY ICP-MS						
Aluminum	3,100		2.9	mg/Kg-dry	4	9/23/2015 07:25 PM
Antimony	47		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Arsenic	340		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Barium	21		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Beryllium	ND		0.59	mg/Kg-dry	4	9/23/2015 07:25 PM
Cadmium	ND		0.59	mg/Kg-dry	4	9/23/2015 07:25 PM
Calcium	9,000		150	mg/Kg-dry	4	9/23/2015 07:25 PM
Chromium	6.7		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Cobalt	2.6		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Copper	11		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Iron	8,000		24	mg/Kg-dry	4	9/23/2015 07:25 PM
Lead	2.9		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Magnesium	6,400		59	mg/Kg-dry	4	9/23/2015 07:25 PM
Manganese	300		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Nickel	5.5		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Potassium	480		59	mg/Kg-dry	4	9/23/2015 07:25 PM
Selenium	ND		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Silver	ND		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Sodium	90		59	mg/Kg-dry	4	9/23/2015 07:25 PM
Thallium	ND		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Vanadium	14		1.5	mg/Kg-dry	4	9/23/2015 07:25 PM
Zinc	11		2.9	mg/Kg-dry	4	9/23/2015 07:25 PM
MOISTURE						
Moisture	8.3		0.050	% of sample	1	9/27/2015 08:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp
Date: 30-Sep-15

Client: Environmental Quality Management, Inc.

Project: Aniwa Arsenic

Work Order: 15091295

Sample ID: Sed-01-0915

Lab ID: 15091295-08

Collection Date: 9/22/2015 09:25 AM

Matrix: SEDIMENT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			SW7471B		Prep: SW7471 / 9/28/15	Analyst: LR
Mercury	0.052		0.046	mg/Kg-dry	1	9/28/2015 05:43 PM
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 9/23/15	Analyst: ML
Aluminum	4,200		10	mg/Kg-dry	4	9/23/2015 07:49 PM
Antimony	ND		5.2	mg/Kg-dry	4	9/24/2015 09:44 PM
Arsenic	22		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Barium	100		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Beryllium	ND		2.1	mg/Kg-dry	4	9/23/2015 07:49 PM
Cadmium	ND		2.1	mg/Kg-dry	4	9/23/2015 07:49 PM
Calcium	3,700		520	mg/Kg-dry	4	9/24/2015 09:44 PM
Chromium	7.1		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Cobalt	ND		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Copper	6.3		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Iron	4,100		84	mg/Kg-dry	4	9/23/2015 07:49 PM
Lead	20		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Magnesium	1,600		210	mg/Kg-dry	4	9/23/2015 07:49 PM
Manganese	210		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Nickel	ND		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Potassium	970		210	mg/Kg-dry	4	9/23/2015 07:49 PM
Selenium	ND		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Silver	ND		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Sodium	ND		210	mg/Kg-dry	4	9/23/2015 07:49 PM
Thallium	ND		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Vanadium	8.7		5.2	mg/Kg-dry	4	9/23/2015 07:49 PM
Zinc	60		10	mg/Kg-dry	4	9/23/2015 07:49 PM
MOISTURE			E160.3M		Analyst: LR	
Moisture	69		0.050	% of sample	1	9/27/2015 08:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp
Date: 30-Sep-15

Client: Environmental Quality Management, Inc.

Project: Aniwa Arsenic

Work Order: 15091295

Sample ID: SW-01-0915

Lab ID: 15091295-09

Collection Date: 9/22/2015 09:20 AM

Matrix: SURFACE WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA						
Mercury	ND		0.00020	mg/L	1	9/26/2015 10:10 PM
METALS BY ICP-MS						
Aluminum	0.70		0.010	mg/L	1	9/25/2015 09:11 PM
Antimony	ND		0.0050	mg/L	1	9/25/2015 09:11 PM
Arsenic	ND		0.0050	mg/L	1	9/25/2015 09:11 PM
Barium	0.072		0.0050	mg/L	1	9/25/2015 09:11 PM
Beryllium	ND		0.0020	mg/L	1	9/25/2015 09:11 PM
Cadmium	ND		0.0020	mg/L	1	9/25/2015 09:11 PM
Calcium	8.1		0.50	mg/L	1	9/25/2015 09:11 PM
Chromium	ND		0.0050	mg/L	1	9/25/2015 09:11 PM
Copper	ND		0.0050	mg/L	1	9/25/2015 09:11 PM
Iron	4.0		0.080	mg/L	1	9/26/2015 08:36 PM
Lead	0.0062		0.0050	mg/L	1	9/25/2015 09:11 PM
Magnesium	2.4		0.20	mg/L	1	9/25/2015 09:11 PM
Manganese	1.0		0.0050	mg/L	1	9/25/2015 09:11 PM
Nickel	ND		0.0050	mg/L	1	9/25/2015 09:11 PM
Potassium	5.4		0.20	mg/L	1	9/25/2015 09:11 PM
Selenium	ND		0.0050	mg/L	1	9/25/2015 09:11 PM
Silver	ND		0.0050	mg/L	1	9/25/2015 09:11 PM
Sodium	0.35		0.20	mg/L	1	9/25/2015 09:11 PM
Thallium	ND		0.0050	mg/L	1	9/25/2015 09:11 PM
Vanadium	ND		0.0050	mg/L	1	9/25/2015 09:11 PM
Zinc	0.087		0.010	mg/L	1	9/25/2015 09:11 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 30-Sep-15

Client: Environmental Quality Management, Inc.

Project: Aniwa Arsenic

Work Order: 15091295

Sample ID: Sed-02-0915

Lab ID: 15091295-10

Collection Date: 9/22/2015 09:35 AM

Matrix: SEDIMENT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			SW7471B		Prep: SW7471 / 9/28/15	Analyst: LR
Mercury	0.053		0.037	mg/Kg-dry	1	9/28/2015 05:45 PM
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 9/23/15	Analyst: ML
Aluminum	3,100		7.1	mg/Kg-dry	4	9/23/2015 07:56 PM
Antimony	ND		3.5	mg/Kg-dry	4	9/24/2015 10:33 PM
Arsenic	4.2		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Barium	82		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Beryllium	ND		1.4	mg/Kg-dry	4	9/23/2015 07:56 PM
Cadmium	ND		1.4	mg/Kg-dry	4	9/23/2015 07:56 PM
Calcium	2,300		350	mg/Kg-dry	4	9/24/2015 10:33 PM
Chromium	4.6		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Cobalt	ND		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Copper	4.3		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Iron	2,600		57	mg/Kg-dry	4	9/23/2015 07:56 PM
Lead	12		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Magnesium	730		140	mg/Kg-dry	4	9/23/2015 07:56 PM
Manganese	150		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Nickel	ND		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Potassium	620		140	mg/Kg-dry	4	9/23/2015 07:56 PM
Selenium	ND		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Silver	ND		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Sodium	ND		140	mg/Kg-dry	4	9/23/2015 07:56 PM
Thallium	ND		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Vanadium	5.2		3.5	mg/Kg-dry	4	9/23/2015 07:56 PM
Zinc	51		7.1	mg/Kg-dry	4	9/23/2015 07:56 PM
MOISTURE			E160.3M		Analyst: LR	
Moisture	62		0.050	% of sample	1	9/27/2015 08:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 30-Sep-15**Client:** Environmental Quality Management, Inc.**Project:** Aniwa Arsenic**Work Order:** 15091295**Sample ID:** SW-02-0915**Lab ID:** 15091295-11**Collection Date:** 9/22/2015 09:30 AM**Matrix:** SURFACE WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA						
Mercury	ND		0.00020	mg/L	1	9/26/2015 10:12 PM
METALS BY ICP-MS						
Aluminum	0.81		0.010	mg/L	1	9/25/2015 09:17 PM
Antimony	ND		0.0050	mg/L	1	9/25/2015 09:17 PM
Arsenic	ND		0.0050	mg/L	1	9/25/2015 09:17 PM
Barium	0.077		0.0050	mg/L	1	9/25/2015 09:17 PM
Beryllium	ND		0.0020	mg/L	1	9/25/2015 09:17 PM
Cadmium	ND		0.0020	mg/L	1	9/25/2015 09:17 PM
Calcium	6.2		0.50	mg/L	1	9/25/2015 09:17 PM
Chromium	ND		0.0050	mg/L	1	9/25/2015 09:17 PM
Copper	ND		0.0050	mg/L	1	9/25/2015 09:17 PM
Iron	2.1		0.080	mg/L	1	9/26/2015 08:42 PM
Lead	ND		0.0050	mg/L	1	9/25/2015 09:17 PM
Magnesium	1.7		0.20	mg/L	1	9/25/2015 09:17 PM
Manganese	0.54		0.0050	mg/L	1	9/25/2015 09:17 PM
Nickel	ND		0.0050	mg/L	1	9/25/2015 09:17 PM
Potassium	5.3		0.20	mg/L	1	9/25/2015 09:17 PM
Selenium	ND		0.0050	mg/L	1	9/25/2015 09:17 PM
Silver	ND		0.0050	mg/L	1	9/25/2015 09:17 PM
Sodium	0.28		0.20	mg/L	1	9/25/2015 09:17 PM
Thallium	ND		0.0050	mg/L	1	9/25/2015 09:17 PM
Vanadium	ND		0.0050	mg/L	1	9/25/2015 09:17 PM
Zinc	0.087		0.010	mg/L	1	9/25/2015 09:17 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 30-Sep-15

Client: Environmental Quality Management, Inc.

Project: Aniwa Arsenic

Work Order: 15091295

Sample ID: B-13R-0915

Lab ID: 15091295-12

Collection Date: 9/22/2015 11:35 AM

Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			SW7470			
Mercury	ND		0.00020	mg/L	1	9/26/2015 10:14 PM
METALS BY ICP-MS			SW6020A		Prep: SW3005A / 9/25/15	Analyst: ML
Aluminum	1.2		0.010	mg/L	1	9/25/2015 09:23 PM
Antimony	ND		0.0050	mg/L	1	9/25/2015 09:23 PM
Arsenic	0.098		0.0050	mg/L	1	9/25/2015 09:23 PM
Barium	0.085		0.0050	mg/L	1	9/25/2015 09:23 PM
Beryllium	ND		0.0020	mg/L	1	9/25/2015 09:23 PM
Cadmium	ND		0.0020	mg/L	1	9/25/2015 09:23 PM
Calcium	46		0.50	mg/L	1	9/25/2015 09:23 PM
Chromium	ND		0.0050	mg/L	1	9/25/2015 09:23 PM
Copper	ND		0.0050	mg/L	1	9/25/2015 09:23 PM
Iron	1.4		0.080	mg/L	1	9/26/2015 08:48 PM
Lead	ND		0.0050	mg/L	1	9/25/2015 09:23 PM
Magnesium	21		0.20	mg/L	1	9/25/2015 09:23 PM
Manganese	0.42		0.0050	mg/L	1	9/25/2015 09:23 PM
Nickel	ND		0.0050	mg/L	1	9/25/2015 09:23 PM
Potassium	2.8		0.20	mg/L	1	9/25/2015 09:23 PM
Selenium	ND		0.0050	mg/L	1	9/25/2015 09:23 PM
Silver	ND		0.0050	mg/L	1	9/25/2015 09:23 PM
Sodium	3.4		0.20	mg/L	1	9/25/2015 09:23 PM
Thallium	ND		0.0050	mg/L	1	9/25/2015 09:23 PM
Vanadium	ND		0.0050	mg/L	1	9/25/2015 09:23 PM
Zinc	ND		0.010	mg/L	1	9/25/2015 09:23 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 30-Sep-15

Client: Environmental Quality Management, Inc.
Project: Aniwa Arsenic
Sample ID: B-19R-0915
Collection Date: 9/22/2015 11:00 AM

Work Order: 15091295
Lab ID: 15091295-13
Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA						
Mercury	ND		0.00020	mg/L	1	9/26/2015 10:17 PM
METALS BY ICP-MS						
Aluminum	0.13		0.010	mg/L	1	9/25/2015 09:29 PM
Antimony	ND		0.0050	mg/L	1	9/25/2015 09:29 PM
Arsenic	ND		0.0050	mg/L	1	9/25/2015 09:29 PM
Barium	0.12		0.0050	mg/L	1	9/25/2015 09:29 PM
Beryllium	ND		0.0020	mg/L	1	9/25/2015 09:29 PM
Cadmium	ND		0.0020	mg/L	1	9/25/2015 09:29 PM
Calcium	76		0.50	mg/L	1	9/25/2015 09:29 PM
Chromium	ND		0.0050	mg/L	1	9/25/2015 09:29 PM
Copper	ND		0.0050	mg/L	1	9/25/2015 09:29 PM
Iron	0.14		0.080	mg/L	1	9/26/2015 08:54 PM
Lead	ND		0.0050	mg/L	1	9/25/2015 09:29 PM
Magnesium	39		0.20	mg/L	1	9/25/2015 09:29 PM
Manganese	0.67		0.0050	mg/L	1	9/25/2015 09:29 PM
Nickel	ND		0.0050	mg/L	1	9/25/2015 09:29 PM
Potassium	2.1		0.20	mg/L	1	9/25/2015 09:29 PM
Selenium	ND		0.0050	mg/L	1	9/25/2015 09:29 PM
Silver	ND		0.0050	mg/L	1	9/25/2015 09:29 PM
Sodium	3.5		0.20	mg/L	1	9/25/2015 09:29 PM
Thallium	ND		0.0050	mg/L	1	9/25/2015 09:29 PM
Vanadium	ND		0.0050	mg/L	1	9/25/2015 09:29 PM
Zinc	ND		0.010	mg/L	1	9/25/2015 09:29 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Environmental Quality Management, Inc.
Work Order: 15091295
Project: Aniwa Arsenic

QC BATCH REPORT

Batch ID: 76598 Instrument ID HG1 Method: SW7470

MLBK			Sample ID: MBLK-76598-76598			Units: mg/L		Analysis Date: 9/26/2015 09:39 PM		
Client ID: [REDACTED]			Run ID: HG1_150926A			SeqNo: 3477636		Prep Date: 9/25/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								
LCS			Sample ID: LCS-76598-76598			Units: mg/L		Analysis Date: 9/26/2015 09:41 PM		
Client ID: [REDACTED]			Run ID: HG1_150926A			SeqNo: 3477637		Prep Date: 9/25/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00218	0.00020	0.002	0	109	80-120	0			
MS			Sample ID: 15091295-04AMS			Units: mg/L		Analysis Date: 9/26/2015 10:00 PM		
Client ID: B-10-0915			Run ID: HG1_150926A			SeqNo: 3477674		Prep Date: 9/25/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00218	0.00020	0.002	-0.000029	110	75-125	0			
MSD			Sample ID: 15091295-04AMSD			Units: mg/L		Analysis Date: 9/26/2015 10:03 PM		
Client ID: B-10-0915			Run ID: HG1_150926A			SeqNo: 3477675		Prep Date: 9/25/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00218	0.00020	0.002	-0.000029	110	75-125	0.00218	0	20	

The following samples were analyzed in this batch:

15091295-01A	15091295-02A	15091295-03A
15091295-04A	15091295-05A	15091295-06A
15091295-09A	15091295-11A	15091295-12A
15091295-13A		

Client: Environmental Quality Management, Inc.
Work Order: 15091295
Project: Aniwa Arsenic

QC BATCH REPORT

Batch ID: 76655	Instrument ID HG1	Method: SW7471B							
MBLK	Sample ID: MBLK-76655-76655	Units: mg/Kg Analysis Date: 9/28/2015 04:50 PM							
Client ID:	Run ID: HG1_150928A	SeqNo: 3480168	Prep Date: 9/28/2015	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit
Mercury	ND	0.020							Qual
LCS	Sample ID: LCS-76655-76655	Units: mg/Kg Analysis Date: 9/28/2015 04:52 PM							
Client ID:	Run ID: HG1_150928A	SeqNo: 3480169	Prep Date: 9/28/2015	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit
Mercury	0.1767	0.020	0.1665	0	106	80-120	0		Qual
MS	Sample ID: 15091295-07AMS	Units: mg/Kg Analysis Date: 9/28/2015 05:31 PM							
Client ID: SS-11-0915	Run ID: HG1_150928A	SeqNo: 3480184	Prep Date: 9/28/2015	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit
Mercury	0.1292	0.013	0.1075	0.01428	107	75-125	0		Qual
MSD	Sample ID: 15091295-07AMSD	Units: mg/Kg Analysis Date: 9/28/2015 05:41 PM							
Client ID: SS-11-0915	Run ID: HG1_150928A	SeqNo: 3480188	Prep Date: 9/28/2015	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit
Mercury	0.1263	0.013	0.1079	0.01428	104	75-125	0.1292	2.21	35

The following samples were analyzed in this batch:

15091295-07A	15091295-08A	15091295-10A
--------------	--------------	--------------

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Environmental Quality Management, Inc.
Work Order: 15091295
Project: Aniwa Arsenic

QC BATCH REPORT

Batch ID: 76460 Instrument ID ICPMS1 Method: SW6020A

MBLK		Sample ID: MBLK-76460-76460		Units: mg/Kg		Analysis Date: 9/23/2015 07:13 PM			
Client ID:		Run ID: ICPMS1_150923A		SeqNo: 3472607		Prep Date: 9/23/2015		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Antimony		ND		0.25					
Arsenic		ND		0.25					
Barium		ND		0.25					
Beryllium		ND		0.10					
Cadmium		ND		0.10					
Chromium		ND		0.25					
Cobalt		ND		0.25					
Copper		0.05215		0.25					J
Iron		ND		4.0					
Lead		ND		0.25					
Magnesium		ND		10					
Manganese		ND		0.25					
Nickel		ND		0.25					
Potassium		ND		10					
Selenium		ND		0.25					
Silver		ND		0.25					
Sodium		ND		10					
Thallium		ND		0.25					
Vanadium		ND		0.25					
Zinc		ND		0.50					

MBLK		Sample ID: MBLK-76460-76460		Units: mg/Kg		Analysis Date: 9/24/2015 09:37 PM			
Client ID:		Run ID: ICPMS1_150924A		SeqNo: 3474975		Prep Date: 9/23/2015		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Antimony		ND		0.25					
Calcium		ND		25					

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Environmental Quality Management, Inc.
Work Order: 15091295
Project: Aniwa Arsenic

QC BATCH REPORT

Batch ID: 76460 Instrument ID ICPMS1 Method: SW6020A

LCS	Sample ID: LCS-76460-76460			Units: mg/Kg		Analysis Date: 9/23/2015 07:19 PM				
Client ID:	Run ID: ICPMS1_150923A			SeqNo: 3472608		Prep Date: 9/23/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	5.145	0.50	5	0	103	80-120	0	0		
Antimony	4.569	0.25	5	0	91.4	80-120	0	0		
Arsenic	4.639	0.25	5	0	92.8	80-120	0	0		
Barium	4.702	0.25	5	0	94	80-120	0	0		
Beryllium	4.262	0.10	5	0	85.2	80-120	0	0		
Cadmium	4.626	0.10	5	0	92.5	80-120	0	0		
Calcium	507.5	25	500	0	102	80-120	0	0		
Chromium	5.33	0.25	5	0	107	80-120	0	0		
Cobalt	5.255	0.25	5	0	105	80-120	0	0		
Copper	5.355	0.25	5	0	107	80-120	0	0		
Iron	520	4.0	500	0	104	80-120	0	0		
Lead	4.966	0.25	5	0	99.3	80-120	0	0		
Magnesium	518	10	500	0	104	80-120	0	0		
Manganese	5.2	0.25	5	0	104	80-120	0	0		
Nickel	5.285	0.25	5	0	106	80-120	0	0		
Potassium	539.5	10	500	0	108	80-120	0	0		
Selenium	4.354	0.25	5	0	87.1	80-120	0	0		
Silver	4.776	0.25	5	0	95.5	80-120	0	0		
Sodium	517	10	500	0	103	80-120	0	0		
Thallium	4.8	0.25	5	0	96	80-120	0	0		
Vanadium	5.385	0.25	5	0	108	80-120	0	0		
Zinc	4.538	0.50	5	0	90.8	80-120	0	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 4 of 11

Client: Environmental Quality Management, Inc.
Work Order: 15091295
Project: Aniwa Arsenic

QC BATCH REPORT

Batch ID: 76460 Instrument ID ICPMS1 Method: SW6020A

MS	Sample ID: 15091295-07AMS			Units: mg/Kg		Analysis Date: 9/23/2015 07:31 PM				
Client ID: SS-11-0915	Run ID: ICPMS1_150923A			SeqNo: 3472614		Prep Date: 9/23/2015		DF: 4		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	3535	2.7	6.793	2836	10300	75-125	0	0	SO	
Antimony	40.49	1.4	6.793	43.48	-44	75-125	0	0	SO	
Arsenic	201.6	1.4	6.793	312.9	-1640	75-125	0	0	SO	
Barium	25.4	1.4	6.793	19.11	92.7	75-125	0	0		
Beryllium	6.503	0.54	6.793	0.23	92.3	75-125	0	0		
Cadmium	6.791	0.54	6.793	0.05876	99.1	75-125	0	0		
Calcium	12770	140	679.3	8291	660	75-125	0	0	SO	
Chromium	13.57	1.4	6.793	6.159	109	75-125	0	0		
Cobalt	9.288	1.4	6.793	2.375	102	75-125	0	0		
Copper	14.17	1.4	6.793	9.73	65.3	75-125	0	0	S	
Iron	7255	22	679.3	7332	-11.2	75-125	0	0	SO	
Lead	9.285	1.4	6.793	2.695	97	75-125	0	0		
Magnesium	9158	54	679.3	5881	482	75-125	0	0	SO	
Manganese	219.8	1.4	6.793	270.9	-752	75-125	0	0	SO	
Nickel	12.06	1.4	6.793	5.073	103	75-125	0	0		
Potassium	1326	54	679.3	444.5	130	75-125	0	0	S	
Selenium	7.288	1.4	6.793	0.5827	98.7	75-125	0	0		
Silver	6.476	1.4	6.793	0.03399	94.8	75-125	0	0		
Sodium	834.2	54	679.3	82.78	111	75-125	0	0		
Thallium	6.815	1.4	6.793	0.09817	98.9	75-125	0	0		
Vanadium	21.66	1.4	6.793	13.2	125	75-125	0	0		
Zinc	17.66	2.7	6.793	10.28	109	75-125	0	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 5 of 11

Client: Environmental Quality Management, Inc.
Work Order: 15091295
Project: Aniwa Arsenic

QC BATCH REPORT

Batch ID: 76460		Instrument ID ICPMS1		Method: SW6020A							
MSD		Sample ID: 15091295-07AMSD		Units: mg/Kg				Analysis Date: 9/23/2015 07:37 PM			
Client ID: SS-11-0915				Run ID: ICPMS1_150923A		SeqNo: 3472626		Prep Date: 9/23/2015		DF: 4	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum		3752	2.7	6.803	2836	13500	75-125	3535	5.96	25	SO
Antimony		48.71	1.4	6.803	43.48	76.9	75-125	40.49	18.4	25	O
Arsenic		298	1.4	6.803	312.9	-220	75-125	201.6	38.6	25	SRO
Barium		27.92	1.4	6.803	19.11	130	75-125	25.4	9.43	25	S
Beryllium		6.816	0.54	6.803	0.23	96.8	75-125	6.503	4.71	25	
Cadmium		7.268	0.54	6.803	0.05876	106	75-125	6.791	6.79	25	
Calcium		14640	140	680.3	8291	934	75-125	12770	13.7	25	SO
Chromium		14.67	1.4	6.803	6.159	125	75-125	13.57	7.8	25	S
Cobalt		10.17	1.4	6.803	2.375	115	75-125	9.288	9.11	25	
Copper		16.44	1.4	6.803	9.73	98.6	75-125	14.17	14.8	25	
Iron		8060	22	680.3	7332	107	75-125	7255	10.5	25	O
Lead		10.12	1.4	6.803	2.695	109	75-125	9.285	8.57	25	
Magnesium		10470	54	680.3	5881	675	75-125	9158	13.4	25	SO
Manganese		308.6	1.4	6.803	270.9	554	75-125	219.8	33.6	25	SRO
Nickel		13.04	1.4	6.803	5.073	117	75-125	12.06	7.83	25	
Potassium		1469	54	680.3	444.5	151	75-125	1326	10.2	25	S
Selenium		7.916	1.4	6.803	0.5827	108	75-125	7.288	8.26	25	
Silver		6.879	1.4	6.803	0.03399	101	75-125	6.476	6.04	25	
Sodium		889.5	54	680.3	82.78	119	75-125	834.2	6.41	25	
Thallium		7.352	1.4	6.803	0.09817	107	75-125	6.815	7.58	25	
Vanadium		22.72	1.4	6.803	13.2	140	75-125	21.66	4.76	25	S
Zinc		18.15	2.7	6.803	10.28	116	75-125	17.66	2.76	25	

The following samples were analyzed in this batch:

15091295-07A	15091295-08A	15091295-10A
--------------	--------------	--------------

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Environmental Quality Management, Inc.
Work Order: 15091295
Project: Aniwa Arsenic

QC BATCH REPORT

Batch ID: 76556 Instrument ID ICPMS1 Method: SW6020A

MLBK	Sample ID: MBLK-76556-76556			Units: mg/L		Analysis Date: 9/25/2015 06:37 PM		
Client ID:	Run ID: ICPMS1_150925A			SeqNo: 3476847		Prep Date: 9/25/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Antimony	ND	0.0050						
Arsenic	ND	0.0050						
Barium	ND	0.0050						
Beryllium	ND	0.0020						
Cadmium	ND	0.0020						
Calcium	ND	0.50						
Chromium	ND	0.0050						
Copper	ND	0.0050						
Iron	ND	0.080						
Lead	ND	0.0050						
Magnesium	ND	0.20						
Manganese	0.0003282	0.0050						J
Nickel	ND	0.0050						
Potassium	ND	0.20						
Selenium	ND	0.0050						
Silver	ND	0.0050						
Sodium	ND	0.20						
Thallium	ND	0.0050						
Vanadium	ND	0.0050						
Zinc	ND	0.010						

MLBK	Sample ID: MBLK-76556-76556			Units: mg/L		Analysis Date: 9/26/2015 06:03 PM		
Client ID:	Run ID: ICPMS1_150926A			SeqNo: 3478190		Prep Date: 9/25/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Aluminum	0.007745	0.010						J

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 7 of 11

Client: Environmental Quality Management, Inc.
Work Order: 15091295
Project: Aniwa Arsenic

QC BATCH REPORT

Batch ID: 76556 Instrument ID ICPMS1 Method: SW6020A

LCS	Sample ID: LCS-76556-76556			Units: mg/L		Analysis Date: 9/25/2015 06:43 PM				
Client ID:	Run ID: ICPMS1_150925A			SeqNo: 3476848		Prep Date: 9/25/2015	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Aluminum	0.0908	0.010	0.1	0	90.8	80-120	0	0	0	
Antimony	0.09689	0.0050	0.1	0	96.9	80-120	0	0	0	
Arsenic	0.09469	0.0050	0.1	0	94.7	80-120	0	0	0	
Barium	0.09629	0.0050	0.1	0	96.3	80-120	0	0	0	
Beryllium	0.09572	0.0020	0.1	0	95.7	80-120	0	0	0	
Cadmium	0.09959	0.0020	0.1	0	99.6	80-120	0	0	0	
Calcium	9.697	0.50	10	0	97	80-120	0	0	0	
Chromium	0.09503	0.0050	0.1	0	95	80-120	0	0	0	
Copper	0.09252	0.0050	0.1	0	92.5	80-120	0	0	0	
Iron	9.417	0.080	10	0	94.2	80-120	0	0	0	
Lead	0.09616	0.0050	0.1	0	96.2	80-120	0	0	0	
Magnesium	9.573	0.20	10	0	95.7	80-120	0	0	0	
Manganese	0.0966	0.0050	0.1	0	96.6	80-120	0	0	0	
Nickel	0.09308	0.0050	0.1	0	93.1	80-120	0	0	0	
Potassium	9.656	0.20	10	0	96.6	80-120	0	0	0	
Selenium	0.09859	0.0050	0.1	0	98.6	80-120	0	0	0	
Silver	0.09142	0.0050	0.1	0	91.4	80-120	0	0	0	
Sodium	9.463	0.20	10	0	94.6	80-120	0	0	0	
Thallium	0.09338	0.0050	0.1	0	93.4	80-120	0	0	0	
Vanadium	0.09466	0.0050	0.1	0	94.7	80-120	0	0	0	
Zinc	0.09641	0.010	0.1	0	96.4	80-120	0	0	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 8 of 11

Client: Environmental Quality Management, Inc.
Work Order: 15091295
Project: Aniwa Arsenic

QC BATCH REPORT

Batch ID: 76556 Instrument ID ICPMS1 Method: SW6020A

MS	Sample ID: 15091295-04AMS			Units: mg/L		Analysis Date: 9/25/2015 08:03 PM			
Client ID: B-10-0915	Run ID: ICPMS1_150925A			SeqNo: 3476861		Prep Date: 9/25/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
Antimony	0.09812	0.0050	0.1	-0.0001347	98.3	75-125	0		
Arsenic	0.09518	0.0050	0.1	0.00002921	95.2	75-125	0		
Barium	0.1425	0.0050	0.1	0.04487	97.6	75-125	0		
Beryllium	0.09224	0.0020	0.1	0.00007579	92.2	75-125	0		
Cadmium	0.0973	0.0020	0.1	9.135E-07	97.3	75-125	0		
Calcium	17.91	0.50	10	8.564	93.5	75-125	0		
Chromium	0.09464	0.0050	0.1	0.001021	93.6	75-125	0		
Copper	0.09349	0.0050	0.1	0.002151	91.3	75-125	0		
Lead	0.09687	0.0050	0.1	0.0001931	96.7	75-125	0		
Magnesium	13.18	0.20	10	3.653	95.3	75-125	0		
Manganese	0.2965	0.0050	0.1	0.1977	98.8	75-125	0		
Nickel	0.09309	0.0050	0.1	0.00146	91.6	75-125	0		
Potassium	12.33	0.20	10	2.688	96.4	75-125	0		
Selenium	0.09839	0.0050	0.1	0.0003305	98.1	75-125	0		
Silver	0.09108	0.0050	0.1	-0.0000353	91.1	75-125	0		
Sodium	10.79	0.20	10	1.392	94	75-125	0		
Thallium	0.0936	0.0050	0.1	-3.957E-05	93.6	75-125	0		
Vanadium	0.09961	0.0050	0.1	0.00473	94.9	75-125	0		
Zinc	0.09684	0.010	0.1	0.001883	95	75-125	0		

MS	Sample ID: 15091295-04AMS			Units: mg/L		Analysis Date: 9/26/2015 06:33 PM			
Client ID: B-10-0915	Run ID: ICPMS1_150926A			SeqNo: 3478195		Prep Date: 9/25/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
Iron	10.46	0.080	10	0.9021	95.6	75-125	0		

MS	Sample ID: 15091295-04AMS			Units: mg/L		Analysis Date: 9/28/2015 02:33 PM			
Client ID: B-10-0915	Run ID: ICPMS1_150928A			SeqNo: 3480069		Prep Date: 9/25/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
Aluminum	0.4284	0.010	0.1	0.2998	129	75-125	0		S

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Environmental Quality Management, Inc.
Work Order: 15091295
Project: Aniwa Arsenic

QC BATCH REPORT

Batch ID: 76556 Instrument ID ICPMS1 Method: SW6020A

MSD			Sample ID: 15091295-04AMSD		Units: mg/L		Analysis Date: 9/25/2015 08:09 PM			
Client ID: B-10-0915			Run ID: ICPMS1_150925A		SeqNo: 3476862		Prep Date: 9/25/2015 DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.09747	0.0050	0.1	-0.0001347	97.6	75-125	0.09812	0.665	20	
Arsenic	0.09618	0.0050	0.1	0.00002921	96.2	75-125	0.09518	1.05	20	
Barium	0.1427	0.0050	0.1	0.04487	97.8	75-125	0.1425	0.14	20	
Beryllium	0.09028	0.0020	0.1	0.00007579	90.2	75-125	0.09224	2.15	20	
Cadmium	0.0982	0.0020	0.1	9.135E-07	98.2	75-125	0.0973	0.921	20	
Calcium	18.14	0.50	10	8.564	95.8	75-125	17.91	1.28	20	
Chromium	0.0958	0.0050	0.1	0.001021	94.8	75-125	0.09464	1.22	20	
Copper	0.09357	0.0050	0.1	0.002151	91.4	75-125	0.09349	0.0855	20	
Lead	0.0965	0.0050	0.1	0.0001931	96.3	75-125	0.09687	0.383	20	
Magnesium	13.31	0.20	10	3.653	96.6	75-125	13.18	0.982	20	
Manganese	0.2985	0.0050	0.1	0.1977	101	75-125	0.2965	0.672	20	
Nickel	0.09381	0.0050	0.1	0.00146	92.4	75-125	0.09309	0.77	20	
Potassium	12.58	0.20	10	2.688	98.9	75-125	12.33	2.01	20	
Selenium	0.1012	0.0050	0.1	0.0003305	101	75-125	0.09839	2.82	20	
Silver	0.09061	0.0050	0.1	-0.0000353	90.6	75-125	0.09108	0.517	20	
Sodium	10.81	0.20	10	1.392	94.2	75-125	10.79	0.185	20	
Thallium	0.09462	0.0050	0.1	-3.957E-05	94.7	75-125	0.0936	1.08	20	
Vanadium	0.09875	0.0050	0.1	0.00473	94	75-125	0.09961	0.867	20	
Zinc	0.09666	0.010	0.1	0.001883	94.8	75-125	0.09684	0.186	20	

MSD			Sample ID: 15091295-04AMSD		Units: mg/L		Analysis Date: 9/26/2015 06:39 PM			
Client ID: B-10-0915			Run ID: ICPMS1_150926A		SeqNo: 3478196		Prep Date: 9/25/2015 DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	10.33	0.080	10	0.9021	94.3	75-125	10.46	1.25	20	

MSD			Sample ID: 15091295-04AMSD		Units: mg/L		Analysis Date: 9/28/2015 02:39 PM			
Client ID: B-10-0915			Run ID: ICPMS1_150928A		SeqNo: 3480070		Prep Date: 9/25/2015 DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.4276	0.010	0.1	0.2998	128	75-125	0.4284	0.187	20	S

The following samples were analyzed in this batch:

15091295-01A	15091295-02A	15091295-03A
15091295-04A	15091295-05A	15091295-06A
15091295-09A	15091295-11A	15091295-12A
15091295-13A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Environmental Quality Management, Inc.
Work Order: 15091295
Project: Aniwa Arsenic

QC BATCH REPORT

Batch ID: R172520 Instrument ID MOIST Method: E160.3M

MBLK		Sample ID: WBLKS-R172520		Units: % of sample		Analysis Date: 9/27/2015 08:00 PM					
Client ID:		Run ID: MOIST_150927A		SeqNo: 3479100		Prep Date: DF: 1					
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture		ND		0.050							
LCS		Sample ID: LCS-R172520		Units: % of sample		Analysis Date: 9/27/2015 08:00 PM					
Client ID:		Run ID: MOIST_150927A		SeqNo: 3479099		Prep Date: DF: 1					
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture		99.99	0.050	100		0	100	99.5-100.5		0	
DUP		Sample ID: 15091295-07A DUP		Units: % of sample		Analysis Date: 9/27/2015 08:00 PM					
Client ID: SS-11-0915		Run ID: MOIST_150927A		SeqNo: 3479080		Prep Date: DF: 1					
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture		8.53	0.050	0		0	0		8.34	2.25	20
DUP		Sample ID: 15091533-01A DUP		Units: % of sample		Analysis Date: 9/27/2015 08:00 PM					
Client ID:		Run ID: MOIST_150927A		SeqNo: 3479096		Prep Date: DF: 1					
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture		11.42	0.050	0		0	0		11.09	2.93	20

The following samples were analyzed in this batch:

15091295-07A	15091295-08A	15091295-10A
--------------	--------------	--------------

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 11 of 11



Environmental

Cincinnati, OH +1 513 743 5336
Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070
Milwaukee, WI +1 717 544 3541
Repeal, IL of 7 +1 800 256 7790
COC ID 26252

Chain of Custody Form

Houston, TX +1 281 530 5656
Spring City, PA +1 600 948 4903
South Charleston, WV +1 304 356 3168
Milwaukee, WI +1 717 544 3541
Salt Lake City, UT +1 712 505 5260
York, PA +1 717 544 3541

Customer Information:

Project Information:

Parameter/Method Request for Analysis:

ALS Assess

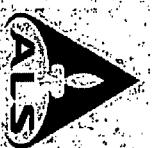
16. METALS

Environmental Quality Management, Inc.
1800 Cannon Blvd.

Note: 1. Any changes must be made in writing once samples and COC form have been submitted to ALS Environmental.

2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

3. The Chain of Custody is a legal document. All information must be completed accurately.



Environmental

Cincinnati, OH
+1 513 733-5336
Everett, WA
Holland, MI
+1 423 536-2600
+1 616 339-6700

Fort Collins, CO
+1 970 480-1511
Middletown, PA
+1 717 944-5541
+1 800 256-7700

Houston, TX
+1 281 530-5656
Spring City, PA
+1 610 948-4903
South Charleston, WV
+1 304 356-3168
Salt Lake City, UT
+1 772-50200
York, PA
+1 717-500-5200

coC# 26250

Page 2 of 2

Chain of Custody Form

Customer Information

Project Information

ALS ASSOC
ASIA

TECH METALS

Parameter/Method Request for Analysis

Environmental Quality Management, Inc.

Environmental Quality Management, Inc.
Accounts Payable

1800 Callahan Blvd

Chamblee, GA 30340

Cincinnati, OH 45240

(513) 825-7500

(513) 825-7485

Methodology

SA-02 0915

9-22-15
9-22-15
1100

0130
135
0

S-62A
G
G

2
2
2

1
1
X

X
X
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

1
1
X

Shipment Method

FEDEX

Notes:

Reinquiry

Date: 9-22-15

Time: 1600

Received by:

FEDEX

Comments:

FEDEX

Comments:

FEDEX

Comments:

FEDEX

Comments:

FEDEX

Comments:

FEDEX

Comments:

FEDEX

Reinquiry

Date: 9-22-15

Time: 0930

Received by:

FEDEX

Comments:

FEDEX

Comments:

FEDEX

Comments:

FEDEX

Comments:

FEDEX

Comments:

FEDEX

Comments:

FEDEX

Note: 1 Any changes must be made in writing once samples and COC form have been submitted to ALS Environmental.

2 Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

3. The Chain of Custody is a legal document. All information must be completed accurately.

01-7700
GOVT
SHIP DATE: 22SEP15
ACTWGT: 44.00 LB
CDD: 70FFC1621
QIMS: 26X14X14 IN

BILL SENDER

ING
ENTAL
E

19424

REF#



2750 WED - 23 SEP AA
STANDARD OVERNIGHT
AHS
49424
MA MI-US GRR

MI-US GRR



BY SEAL

IRG

800-255-3950 • 384
Quality Environmental



Massachusetts Environmental Containers

1-800-255-3950 • 384-255-3000

QESTOLOGY SEAL

SIGHTTUBE

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: EQM - CINCINNATI

Date/Time Received: 23-Sep-15 09:30

Work Order: 15091295

Received by: KRW

Checklist completed by Keith Wuranga
eSignature

23-Sep-15

Reviewed by: Bill Cary
eSignature

23-Sep-15

Date

Matrices: Water & Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.8/4.8 C</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>9/23/2015 12:58:53 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u></u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: