Alliance Environmental Group, Inc.

100 Jefferson Boulevard
Suite 220
Warwick, RI 02888
401.732.7600
Fax 401.732.7670

May 6, 2013

Ms. Ashley L. Blauvelt
Sanitary Engineer
Rhode Island Department of Environmental Management (RIDEM)
Office of Waste Management
235 Promenade Street
Providence, RI 02908

RE: Short-Term Response Action Completion Addendum
509 Metacom Avenue
Bristol, RI
RIDEM Case # 2013-013

Dear Ms. Blauvelt:

Alliance Environmental Group, Inc. (AEG) is providing the following addendum report following receipt of a RIDEM comment letter dated May 2, 2013.

RIDEM Comments:

#1 The closure states the first set set of confirmatory samples contained arsenic exceeding the Department's Direct Exposure Criteria and, as a result. "AEG ordered additional soil removal." Please provide more detail on the additional soil removal. The material disposal logs indicate that 96 additional cubic yards of material were taken off-site on April 12, 2013. Was the excavation area widened or deepened, and, if so, by how much?

Because the soil to be removed was a deposited pile, the initial day of the excavation was completed to its approximate base. On that day, AEG arrived toward the tail end of the work day to gauge the excavation status and also if appropriate collect representative base and sidewall samples (200 series) for laboratory analysis on a 24-hour turnaround in order to prevent removal of additional soils which may not have been impacted.

At the time of the initial sampling (April 11th), AEG noted the removal effort at the center of the pile (base sample) was deeper than the perimeter and as a result we would collect the needed samples but informed the client that the remaining pile edges

would need to be removed to at least the base elevation. As such the client continued removal efforts during April 12th and once receiving the initial sampling results and as expected the perimeter samples from the soil pile continued to contain arsenic in excess of the DEC, however, the base was compliant. As a result it was confirmed the necessity for the additional soils removed during the April 12th effort. At the conclusion of the work and in order to confirm the pile was removed, AEG returned to the Site on Saturday, April 13, 2013, to collect additional soil samples from the perimeter of the soil pile area. Upon arrival, it was confirmed the additional soil removal conducted over April 12th removed the perimeter of soil pile soils to the elevation of the April 11th base sample. In total four (4) sidewall samples (300 series) were collected and analyzed for arsenic, which were all compliant. All sample results are attached hereto as Appendix A.

As a result, the excavation area was not actually deepened or widened. On April 12th required soils within the pile were removed.

#2 Figure 2 shows the second set of confirmatory samples taken on April 13, 2013, were taken in the exact same location as the first set of samples taken on April 11, 2013. If the samples were in fact taken at the same location, at what depth was the second set of samples taken? If the first and second round confirmatory samples were not taken at the exact same location, please amend the site figure to reflect this.

As noted above and during this response action, the efforts undertaken were to remove a surface grade deposited soil. During the initial day of the removal activity (April 11th) AEG arrived toward the end of the day to gauge the progress and also collect sample to determine if response actions were achieved in order to avoid removal of additional soil. The initial inspection showed the base area of the pile was excavated to apparent native surrounding grade, however the sides of the pile remained above the base elevation. AEG still collected samples to determine arsenic content, but instructed the contractor to continue removal actions on April 12th to at least reach the apparent native surrounding grade. These actions were completed during April 12th and AEG returned April 13th to collect additional samples from the pile extents because the base (as expected) passed. The second round of sidewall samples (300 series) were collected approximately within the same location of the initial (200 series), except at a deeper depth (depth depth with the base and surrounding grade).

#3 The scale provided on Figure 2 indicates that the excavation sidewalls were approximately 45 feet while the report narrative states that each sidewall of was less than 25 feet long. Please confirm the actual length of each sidewall and amend Figure 2 to more accurately depict the extents of the excavation. Confirm that the appropriate number of confirmatory samples have been taken to demonstrate compliance with the Dig & Haul Policy or, take additional confirmatory samples to achieve compliance.

All field confirmatory soil sampling was collected in accordance with the policy and field measurements showed no sidewall was greater than 25'. After receiving this comment, AEG reviewed the scaling parameters of the plan and did find an error in the reported

scale. After review, the scale shown upon the plan should have been 1" = ~ 30' which would explain the initial discrepancy. As such, the plan has been amended to reflect the correct scale and is attached hereto.

#4 The Closure Report contains one Table, which only presents the sampling results for the second round of confirmatory sampling. Please include all sampling results in the tabular format in the Closure Report Addendum.

Please see below table:

Table 1
Confirmatory Analytical Summary
509 Metacom Avenue, Bristol, RI
(April 11th/12th, 2013)

Target Analyte	AE-BS-201	AE-SW-201/ AE-SW-301	AE-SW-202/ AE-SW-302	AE-SW-203/ AE-SW-303	AE-SW-204/ AE-SW-304	**RIDEM DEC**
Total Arsenic	6.37	**7.2** / 3.12	**10.9** / 4.10	**11.4** / 5.91	**9.46** / 3.18	**7.0**

Notes:
1. Units: mg/Kg (parts per million (ppm))
2. RIDEM DEC as define in the *Remediation Regulations*

#5 Appendix A: Soil Analytical Reports only contains the analytical report for the first round of confirmatory sampling. Please include all analytical data in a Closure Report Addendum.

AEG confirmed this was the case and has provided all confirmatory analytical data attached hereto.

Very truly yours,
Alliance Environmental Group, Inc.

Jacob H. Butterworth

Digitally signed by Jacob H. Butterworth
DN: cn=Jacob H. Butterworth, o, ou, email=JButterworth@AllianceEGI.com, c=US
Date: 2013.05.06 12:13:31 -04'00'

Jacob H. Butterworth, MS
Project Manager

Attachments:
Figure 2 Site Plan (Revised)
Appendix A Soil Analytical Reports

cc: Mr. Domenico Bucci and Ms. Irma Santilli

Alliance Environmental

Alliance Environmental Group, Inc.
100 Jefferson Boulevard, Warwick, RI 02888
Telephone: 401.732.7600; Fax: 401.732.7670

N
W E
S

FIGURE 2: SITE PLAN
509 METACOM AVENUE
BRISTOL, RI
AEG PROJECT # 2198

File: 2198.SITEPLAN.pub Drawn by: JHB

APPENDIX A

SOIL ANALYTICAL REPORTS

Alliance Environmental Group, Inc.

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number Z0412-02

Prepared for:

Attn: Jacob Butterworth
Alliance Environmental Group
100 Jefferson Blvd., Suite 220
Warwick, RI 02888

Report Date: April 12, 2013

Reviewed by:

Richard Warila
Laboratory Director

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

Total # of Pages: 12

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on April 12, 2013. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. The report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is Z0412-02.

Custody records are included in this report.

Site: Metacom

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE-SW-201	4/11/13	Soil	Table II
AE-SW-202	4/11/13	Soil	Table II
AE-SW-203	4/11/13	Soil	Table II
AE-SW-204	4/11/13	Soil	Table II
AE-BS-201	4/11/13	Soil	Table II

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Total Metals		
Arsenic	3050B	6010C

This method is documented in:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

CASE NARRATIVE:

Sample Receipt

The samples were all appropriately cooled and preserved upon receipt. The samples were received in the appropriate containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Metals

All analyses were performed according to NETLAB's documented Standard Operating Procedures, within all required holding times, and with appropriate quality control measures. All QC was within laboratory established acceptance criteria. The samples were received, processed, and reported with no anomalies.

METALS RESULTS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Metals Analysis Department certifies that the results included in this section have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

New England Testing Laboratory, Inc.

METALS RESULTS

Case Number: Z0412-02
Sample ID: AE-SW-201
Date collected: 4/11/13
Matrix Soil
Solids, % 79.76
Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010C	7.25	0.88	mg/kg	4/12/13	4/12/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: Z0412-02
Sample ID: AE-SW-202
Date collected: 4/11/13
Matrix Soil
Solids, % 79.29
Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010C	10.9	0.84	mg/kg	4/12/13	4/12/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: Z0412-02
Sample ID: AE-SW-203
Date collected: 4/11/13
Matrix Soil
Solids, % 81.24
Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010C	11.4	0.86	mg/kg	4/12/13	4/12/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: Z0412-02
Sample ID: AE-SW-204
Date collected: 4/11/13
Matrix Soil
Solids, % 76.06
Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010C	9.46	0.94	mg/kg	4/12/13	4/12/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: Z0412-02
Sample ID: AE-BS-201
Date collected: 4/11/13
Matrix Soil
Solids, % 82.05
Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010C	6.37	0.86	mg/kg	4/12/13	4/12/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

METALS RESULTS

Sample ID: Preparation Blank
Matrix SOIL
Solids, % 100
Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010C	ND	0.67	mg/kg	4/12/13	4/12/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

LABORATORY CONTROL SAMPLE RECOVERY

Parameter	True Value	Result	Units	Recovery, %	Internal LCL, %	Internal UCL, %	Date Analyzed
Arsenic	13.3	11.8	mg/kg	89	80	120	4/12/13

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

Z0412-02

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME/LOCATION
2198	MetaCom

CLIENT: AE6
REPORT TO: Jacobs
INVOICE TO: 11

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	TESTS** Total AS	REMARKS
4/11/13	-		X	AE-SW-201 •		X		1	ND	X	
	-		X	AE-SW-202 •							
	-		X	AE-SW-203 •							
	-		X	AE-SW-204 •							
	-		X	AE-BS-201 •							

Sampled by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	4/12/13 8:30		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	4/12/13 8:30		4-12-13 8:3
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time
	4-12-13 8:45	M Fong	4/12/13 8:45

Laboratory Remarks:
Temp. received: 4°C
Cooled ☐

Special Instructions:
List Specific Detection Limit Requirements:
24-hr. by days end 4/12/13 Please

Turnaround (Business Days) 24-hr.

**Netlab subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number Z0415-02

Prepared for:

Attn: Jacob Butterworth
Alliance Environmental Group
100 Jefferson Blvd., Suite 220
Warwick, RI 02888

Report Date: April 15, 2013

Reviewed by:

Richard Warila
Laboratory Director

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

Total # of Pages: 11

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on April 15, 2013. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. The report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is Z0415-02.

Custody records are included in this report.

Site: Metacom

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE-SW-301	4/13/13	Soil	Table II
AE-SW-302	4/13/13	Soil	Table II
AE-SW-303	4/13/13	Soil	Table II
AE-SW-304	4/13/13	Soil	Table II

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Total Metals		
Arsenic	3050B	6010C

This method is documented in:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

CASE NARRATIVE:

Sample Receipt

The samples were all appropriately cooled and preserved upon receipt. The samples were received in the appropriate containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Metals

All analyses were performed according to NETLAB's documented Standard Operating Procedures, within all required holding times, and with appropriate quality control measures. All QC was within laboratory established acceptance criteria. The samples were received, processed, and reported with no anomalies.

METALS RESULTS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Metals Analysis Department certifies that the results included in this section have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

New England Testing Laboratory, Inc.

METALS RESULTS

Case Number: Z0415-02
Sample ID: AE-SW-301
Date collected: 4/15/13
Matrix Soil
Solids, % 83.39
Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010C	3.12	0.85	mg/kg	4/15/13	4/15/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: Z0415-02
Sample ID: AE-SW-302
Date collected: 4/15/13
Matrix Soil
Solids, % 81.45
Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010C	4.10	0.82	mg/kg	4/15/13	4/15/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: Z0415-02
Sample ID: AE-SW-303
Date collected: 4/15/13
Matrix Soil
Solids, % 81.92
Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010C	5.91	0.86	mg/kg	4/15/13	4/15/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: Z0415-02
Sample ID: AE-SW-304
Date collected: 4/15/13
Matrix Soil
Solids, % 93.33
Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010C	3.18	0.73	mg/kg	4/15/13	4/15/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

METALS RESULTS

Sample ID: Preparation Blank
Matrix SOIL
Solids, % 100
Sample Type: Total

Analyst JC/RS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010C	ND	0.67	mg/kg	4/15/13	4/15/13

ND indicates Not Detected.

All results are reported on a dry weight basis.

LABORATORY CONTROL SAMPLE RECOVERY

Parameter	True Value	Result	Units	Recovery, %	Internal LCL, %	UCL, %	Date Analyzed
Arsenic	13.3	12.6	mg/kg	95	80	120	4/15/13

Z0415-02

Chain of Custody

Project name: Metacom
Client: AEG
Report to: Jacob
Bill to: Jacob

Date	Grab	Sample name	type	# of Containers	Preserve	Analysis
4/13/13	X	AE-SW-301	Soil	1	NP	total Arsenic
		AE-SW-302				
		AE-SW-303				
		AE-SW-304				

Sampled by: ~~Jacob~~ H. Butterworth
4/15/13 8:00

Relinquesed by: ~~Jacob~~ H. Butterworth
4/15/13 8:00

Recieved by:

turnaround time: 24 hr. (needs results by days end today)