

**TOWN OF ACTON
CONSERVATION COMMISSION**

Minutes

MARCH 15, 2017

7:15 PM

TOWN HALL - 472 MAIN STREET

ROOM 9

COMMISSIONERS PRESENT: Terry Maitland, Amy Green, Paula Goodwin, Jennifer Stolz

NATURAL RESOURCES DIRECTOR & RECORDING SECRETARY: Tom Tidman

VISITORS: J.D. Head, Joe Holmes

7:25 Discussion: John David Head, Director of Facilities and Transportation, Acton-Boxboro Regional School District, to address concerns expressed by the Commission regarding possible contamination of the wetlands located near the lower fields.

Mr. Head mentioned that he had had a study done by Lord Associates to determine the possible contamination, if any, of carcinogens in the ground rubber on the ball fields. The study included heavy metal concentrations and other contaminants. (The report is attached to this document).

Mr. Maitland asked about two wetland incursions concerning the Commission. Mr. Head explained that snow clearing was done by pushing snow onto the paved surface around the perimeter of the field and then blown onto the Junior Varsity baseball field, where it remains until melted. In spring, a "box sweeper" is used to pick the rubber off of the grass surface. The field is then hand raked as the last step.

Ms. Goodwin asked how the crumb rubber would be thoroughly removed from the wetlands where it has been accumulating. Mr. Head explained that high school students will be recruited to help with the work on Senior Work day scheduled in late April. He said that there are about 500 possible students to recruit from.

Issue 1. Ms. Green commented that the gate at the end of the field needs to remain closed since snow is being dumped into the wetlands through the open gate. Mr. Head said he was unaware that the gate was open. Mr. Head stated he would instruct his crew to keep the gate closed.

Issue 2. Two pressure-treated Goal Pocket decks are sitting on concrete blocks. No foundations were ever installed for them. The School Department raised concerns about this situation as a reaction to an athlete running into a goal post and being injured. These are not permanent structures and could be removed if required.

The following action items were agreed upon as a result of the discussion:

1. Mr. Head would meet with his maintenance chief to review where snow/rubber mix will be dumped in the future. Mr. Tidman will meet with the crew chief, Bob Glenn, to walk the site.
2. The Commission requires that a Notice of Intent filing be submitted for the installation of the pressure treated goal pocket platforms.
3. The Commission will conduct another site walk upon completion of winter clean up.

8:00 Discussion: Conservation Lands Naming Guidelines: Joe Holmes, Land Steward

Mr. Holmes reviewed the guidelines the Land Stewards would like to have followed when naming conservation properties. The guidelines, as submitted to the Commission, have been reviewed and approved by the Land Stewardship Committee. (A draft of these is attached to this document.)

Mr. Maitland asked if the Land Steward Committee (LSC) would come up with names for specific unnamed parcels going forward. Mr. Holmes responded that they would do so and send them to the Conservation Commission for approval.

The Commission took the draft guidelines under review, and will continue the discussion at an upcoming meeting.

Certificate of Compliance:

85-1033: Micmac Lane (48 Nashoba Lane)

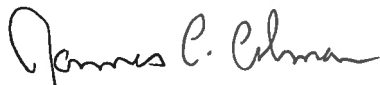
Ms. Green moved to issue a Certificate of Compliance, Ms. Stolz seconded the motion and it was approved unanimously.

Minutes:

February 15, 2017: Reviewed by TM, AG, JS, PG

Ms. Green moved to approve the minutes of Feb. 15, 2017; Ms Goodwin seconded the motion and it was approved unanimously.

Meeting adjourned at 8:55.





Terry Maitland
Chairperson

**CONSERVATION COMMISSION
AGENDA
March 15, 2017
7:15 PM
ACTON TOWN HALL
472 MAIN STREET
Room 204-moved to Room-9**

7:15 Discussion: J.D. Head, Acton-Boxboro Regional School District

7:30 Discussion: Conservation Lands Naming Guidelines: Joe Holmes, Land Stewards

Certificate of Compliance:

85-1033: Micmac Lane

Minutes:

February 15, 2017: Reviewed by TM, AG, JS, PG

Location Home Public Meetings Conservation Commission 2017 Meetings 03-15-2017 Listing

03-15-2017

Edit Selected... Add...

| Type | Title | Owner | Modified Date | Size | Actions |
|------|---|------------|---------------|--------|---------------|
| PDF | 001 - Agenda 03-15-2017 | naturalres | 03/10/17 | 19 KB | View Star ... |
| PDF | 85-1033 48 Nashoba Rd MicMac Lane RCoC Letter | naturalres | 03/08/17 | 88 KB | View Star ... |
| PDF | AB Letter Report on Lower and Leary Infill | naturalres | 03/20/17 | 225 KB | View Star ... |
| PDF | Cons_Land_Naming_Guidelines | naturalres | 03/10/17 | 280 KB | View Star ... |

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4:50 PM 3/20/2017

Attachment 1.

Athletic Fields Ground Rubber Testing

Attachment 2.

Land Steward Committee Open Space Naming Guidelines

Lord Associates, Inc.

Environmental Consulting & Licensed Site Professional Services

1506 Providence Highway - Suite 30
Norwood, MA 02062-4647

Voice: 781.255.5554
Fax: 781.255.5535
www.lordenv.com

December 1, 2014

John David Head
Director of Facilities and Transportation
Acton Boxborough Regional School District
16 Charter Road
Acton MA 01720

RE: Laboratory Results of Athletic Field Rubber Samples

Dear Mr. Head:

Pursuant to your request, Lord Associates, Inc., had a state-certified analytical laboratory analyze the two samples of ground rubber from the athletic fields you delivered to us.

The fields were identified as:

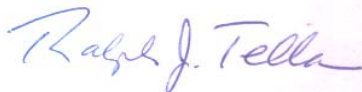
- Lower 88
- Leary 16 Charter

The samples were analyzed for eight "heavy" metals commonly tested for environmental characterization. These metals included arsenic, barium, lead, mercury, chromium, cadmium, selenium and silver. The results of the analyses were tabulated with comparison to the most stringent Massachusetts Department of Environmental Protection (DEP) standards established for soil as no standards have been published for these materials. In my opinion this comparison is very conservative given the nature of the sample matrix.

As you can see on the attached table, only concentrations of barium, chrome and lead were detected. The results are very low and do not exceed the most stringent S-1/GW-1 standard. This standard was set for a residential setting that utilizes groundwater for drinking. Based on this testing and comparative analyses, it is my opinion that dermal and incidental ingestion of this material would not be expected to present a significant risk to human health.

Sincerely,

LORD ASSOCIATES, INC.



Ralph J. Tella, C.H.M.M., L.S.P.
President

Attached: Table of Results
Copy of Original Laboratory Report

| Sample Results Comparison with MCP /GW-1 Criteria. | | | | | | | |
|--|-------------------|-----------------|--------------|--------------------|-------------------------|--------------------|-------------|
| | | | | | | | |
| CLIENT SAMPLE ID | | | | LOWER 88 | LEARY 16 CHARTER | | |
| SAMPLING DATE | | | | 17-NOV-14 | | 17-NOV-14 | |
| LAB SAMPLE ID | | | | L1427996-01 | | L1427996-02 | |
| | CAS Number | S1/G1-14 | Units | | Qual | | Qual |
| General Chemistry | | | | | | | |
| Solids, Total | --- | | % | 83.4 | | 83.4 | |
| Total Metals | | | | | | | |
| Arsenic, Total | 7440-38-2 | 20 | mg/kg | 0.47 | U | 0.46 | U |
| Barium, Total | 7440-39-3 | 1000 | mg/kg | 1.1 | | 1.4 | |
| Cadmium, Total | 7440-43-9 | 70 | mg/kg | 0.47 | U | 0.46 | U |
| Chromium, Total | 7440-47-3 | 100 | mg/kg | 0.56 | | 0.57 | |
| Lead, Total | 7439-92-1 | 200 | mg/kg | 3.4 | | 5.1 | |
| Mercury, Total | 7439-97-6 | 20 | mg/kg | 0.08 | U | 0.08 | U |
| Selenium, Total | 7782-49-2 | 400 | mg/kg | 0.94 | U | 0.92 | U |
| Silver, Total | 7440-22-4 | 100 | mg/kg | 0.47 | U | 0.46 | U |
| U= under detection limit | | | | | | | |



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1427996 |
| Client: | Lord Associates, Inc. 1506 Providence Highway - Suite 30 Norwood, MA 02062 |
| ATTN: | Ralph Tella |
| Phone: | (781) 255-5554 |
| Project Name: | ACTON |
| Project Number: | 2188 |
| Report Date: | 11/25/14 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: ACTON
Project Number: 2188

Lab Number: L1427996
Report Date: 11/25/14

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|----------------------------|------------------|---------------|----------------------------|---------------------------------|---------------------|
| L1427996-01 | LOWER 88 | SOIL | MISC | 11/17/14 00:00 | 11/20/14 |
| L1427996-02 | LEARY 16 CHARTER | SOIL | MISC | 11/17/14 00:00 | 11/20/14 |

Project Name: ACTON
Project Number: 2188

Lab Number: L1427996
Report Date: 11/25/14

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Cristin Walker

Title: Technical Director/Representative

Date: 11/25/14

METALS

Project Name: ACTON

Lab Number: L1427996

Project Number: 2188

Report Date: 11/25/14

SAMPLE RESULTS

Lab ID: L1427996-01

Date Collected: 11/17/14 00:00

Client ID: LOWER 88

Date Received: 11/20/14

Sample Location: MISC

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---------------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.47 | -- | 1 | 11/21/14 15:37 | 11/24/14 12:58 | EPA 3050B | 1,6010C | MG |
| Barium, Total | 1.1 | | mg/kg | 0.47 | -- | 1 | 11/21/14 15:37 | 11/24/14 12:58 | EPA 3050B | 1,6010C | MG |
| Cadmium, Total | ND | | mg/kg | 0.47 | -- | 1 | 11/21/14 15:37 | 11/24/14 12:58 | EPA 3050B | 1,6010C | MG |
| Chromium, Total | 0.56 | | mg/kg | 0.47 | -- | 1 | 11/21/14 15:37 | 11/24/14 12:58 | EPA 3050B | 1,6010C | MG |
| Lead, Total | 3.4 | | mg/kg | 2.3 | -- | 1 | 11/21/14 15:37 | 11/24/14 12:58 | EPA 3050B | 1,6010C | MG |
| Mercury, Total | ND | | mg/kg | 0.08 | -- | 1 | 11/22/14 11:40 | 11/24/14 11:13 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 0.94 | -- | 1 | 11/21/14 15:37 | 11/24/14 12:58 | EPA 3050B | 1,6010C | MG |
| Silver, Total | ND | | mg/kg | 0.47 | -- | 1 | 11/21/14 15:37 | 11/24/14 12:58 | EPA 3050B | 1,6010C | MG |

Project Name: ACTON

Lab Number: L1427996

Project Number: 2188

Report Date: 11/25/14

SAMPLE RESULTS

Lab ID: L1427996-02
 Client ID: LEARY 16 CHARTER
 Sample Location: MISC
 Matrix: Soil
 Percent Solids: 83%

Date Collected: 11/17/14 00:00
 Date Received: 11/20/14
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---------------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.46 | -- | 1 | 11/21/14 15:37 | 11/24/14 13:02 | EPA 3050B | 1,6010C | MG |
| Barium, Total | 1.4 | | mg/kg | 0.46 | -- | 1 | 11/21/14 15:37 | 11/24/14 13:02 | EPA 3050B | 1,6010C | MG |
| Cadmium, Total | ND | | mg/kg | 0.46 | -- | 1 | 11/21/14 15:37 | 11/24/14 13:02 | EPA 3050B | 1,6010C | MG |
| Chromium, Total | 0.57 | | mg/kg | 0.46 | -- | 1 | 11/21/14 15:37 | 11/24/14 13:02 | EPA 3050B | 1,6010C | MG |
| Lead, Total | 5.1 | | mg/kg | 2.3 | -- | 1 | 11/21/14 15:37 | 11/24/14 13:02 | EPA 3050B | 1,6010C | MG |
| Mercury, Total | ND | | mg/kg | 0.08 | -- | 1 | 11/22/14 11:40 | 11/24/14 11:17 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 0.92 | -- | 1 | 11/21/14 15:37 | 11/24/14 13:02 | EPA 3050B | 1,6010C | MG |
| Silver, Total | ND | | mg/kg | 0.46 | -- | 1 | 11/21/14 15:37 | 11/24/14 13:02 | EPA 3050B | 1,6010C | MG |



Project Name: ACTON
Project Number: 2188

Lab Number: L1427996
Report Date: 11/25/14

Method Blank Analysis Batch Quality Control

| Parameter | Result Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|------------------|-------|------|-----|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG742808-1 | | | | | | | | | |
| Arsenic, Total | ND | mg/kg | 0.40 | -- | 1 | 11/21/14 15:37 | 11/24/14 09:07 | 1,6010C | MG |
| Barium, Total | ND | mg/kg | 0.40 | -- | 1 | 11/21/14 15:37 | 11/24/14 09:07 | 1,6010C | MG |
| Cadmium, Total | ND | mg/kg | 0.40 | -- | 1 | 11/21/14 15:37 | 11/24/14 09:07 | 1,6010C | MG |
| Chromium, Total | ND | mg/kg | 0.40 | -- | 1 | 11/21/14 15:37 | 11/24/14 09:07 | 1,6010C | MG |
| Lead, Total | ND | mg/kg | 2.0 | -- | 1 | 11/21/14 15:37 | 11/24/14 09:07 | 1,6010C | MG |
| Selenium, Total | ND | mg/kg | 0.80 | -- | 1 | 11/21/14 15:37 | 11/24/14 09:07 | 1,6010C | MG |
| Silver, Total | ND | mg/kg | 0.40 | -- | 1 | 11/21/14 15:37 | 11/24/14 09:07 | 1,6010C | MG |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|------------------|-------|------|-----|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG742943-1 | | | | | | | | | |
| Mercury, Total | ND | mg/kg | 0.08 | -- | 1 | 11/22/14 11:40 | 11/24/14 11:04 | 1,7471B | MC |

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: ACTON

Project Number: 2188

Lab Number: L1427996

Report Date: 11/25/14

| Parameter | LCS | | LCSD | | %Recovery Limits | RPD | Qual | RPD Limits |
|---|-----------|------|-----------|------|------------------|-----|------|------------|
| | %Recovery | Qual | %Recovery | Qual | | | | |
| Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG742808-2 SRM Lot Number: D083-540 | | | | | | | | |
| Arsenic, Total | 106 | | - | | 78-122 | - | | |
| Barium, Total | 96 | | - | | 82-117 | - | | |
| Cadmium, Total | 95 | | - | | 82-118 | - | | |
| Chromium, Total | 98 | | - | | 79-121 | - | | |
| Lead, Total | 98 | | - | | 81-119 | - | | |
| Selenium, Total | 102 | | - | | 78-123 | - | | |
| Silver, Total | 99 | | - | | 74-125 | - | | |
| Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG742943-2 SRM Lot Number: D083-540 | | | | | | | | |
| Mercury, Total | 98 | | - | | 75-126 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: ACTON
Project Number: 2188

Lab Number: L1427996
Report Date: 11/25/14

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | MSD Qual | MSD Found | MSD %Recovery | MSD Qual | Recovery Limits | RPD | RPD Qual | RPD Limits |
|---|---------------|----------|----------|--------------|----------|-----------|---------------|----------|-----------------|-----|----------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG742808-4 QC Sample: L1427777-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 2.3 | 10.8 | 13 | 98 | | - | - | | 75-125 | - | | 20 |
| Barium, Total | 160 | 181 | 410 | 138 | Q | - | - | | 75-125 | - | | 20 |
| Cadmium, Total | ND | 4.61 | 4.8 | 104 | | - | - | | 75-125 | - | | 20 |
| Chromium, Total | 7.5 | 18.1 | 28 | 113 | | - | - | | 75-125 | - | | 20 |
| Lead, Total | 120 | 46.1 | 170 | 108 | | - | - | | 75-125 | - | | 20 |
| Selenium, Total | ND | 10.8 | 10 | 92 | | - | - | | 75-125 | - | | 20 |
| Silver, Total | ND | 27.1 | 27 | 100 | | - | - | | 75-125 | - | | 20 |
| Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG742943-3 WG742943-4 QC Sample: L1428120-04 Client ID: MS Sample | | | | | | | | | | | | |
| Mercury, Total | ND | 0.15 | 0.17 | 114 | | 0.16 | 110 | | 80-120 | 6 | | 20 |

Lab Duplicate Analysis Batch Quality Control

Project Name: ACTON
Project Number: 2188

Lab Number: L1427996
Report Date: 11/25/14

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG742808-3 QC Sample: L1427777-01 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | 2.3 | 2.7 | mg/kg | 16 | | 20 |
| Barium, Total | 160 | 220 | mg/kg | 32 | Q | 20 |
| Cadmium, Total | ND | ND | mg/kg | NC | | 20 |
| Chromium, Total | 7.5 | 10 | mg/kg | 29 | Q | 20 |
| Lead, Total | 120 | 190 | mg/kg | 45 | Q | 20 |
| Selenium, Total | ND | ND | mg/kg | NC | | 20 |
| Silver, Total | ND | ND | mg/kg | NC | | 20 |



INORGANICS & MISCELLANEOUS

Project Name: ACTON
Project Number: 2188

Lab Number: L1427996
Report Date: 11/25/14

SAMPLE RESULTS

Lab ID: L1427996-01
Client ID: LOWER 88
Sample Location: MISC
Matrix: Soil

Date Collected: 11/17/14 00:00
Date Received: 11/20/14
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 83.4 | | % | 0.100 | NA | 1 | - | 11/20/14 20:57 | 30,2540G | RT |



Project Name: ACTON

Lab Number: L1427996

Project Number: 2188

Report Date: 11/25/14

SAMPLE RESULTS

Lab ID: L1427996-02
 Client ID: LEARY 16 CHARTER
 Sample Location: MISC
 Matrix: Soil

Date Collected: 11/17/14 00:00
 Date Received: 11/20/14
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 83.4 | | % | 0.100 | NA | 1 | - | 11/20/14 20:57 | 30,2540G | RT |



Lab Duplicate Analysis

Batch Quality Control

Project Name: ACTON

Project Number: 2188

Lab Number: L1427996

Report Date: 11/25/14

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG742533-1 QC Sample: L1427233-03 Client ID: DUP Sample | | | | | | |
| Solids, Total | 92.7 | 91.9 | % | 1 | | 20 |

Project Name: ACTON

Lab Number: L1427996

Project Number: 2188

Report Date: 11/25/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-----------------------------|--------|-----|------------|------|--------|---|
| L1427996-01A | Glass 250ml/8oz unpreserved | A | N/A | 2.7 | Y | Absent | AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180) |
| L1427996-02A | Glass 250ml/8oz unpreserved | A | N/A | 2.7 | Y | Absent | AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180) |

*Values in parentheses indicate holding time in days

Project Name: ACTON
Project Number: 2188

Lab Number: L1427996
Report Date: 11/25/14

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a "Total" result is defined as the summation of results for individual isomers or Aroclors. If a "Total" result is requested, the results of its individual components will also be reported. This is applicable to "Total" results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: Data Usability Report



Project Name: ACTON
Project Number: 2188

Lab Number: L1427996
Report Date: 11/25/14

Data Qualifiers

- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: ACTON
Project Number: 2188

Lab Number: L1427996
Report Date: 11/25/14

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

Last revised April 15, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**

EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

PAGE 1 OF 1Date Rec'd In Lab: 11/20/14ALPHA Job #: L14279968 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300**Project Information**Project Name: Acton
Project Location: MISC
Project #: 2188
Project Manager: RALPH
ALPHA Quote #:**Report Information - Data Deliverables** ADEX EMAIL**Billing Information** Same as Client info PO #:**Client Information**Client: LORD ASSOC. INC.
Address: 1506 PROV. Highway
NORWOOD
Phone: 781-255-5554
Email: RTELLA@LORDENVY.COM**Turn-Around Time** Standard RUSH (only confirmed if pre-approved!)
Date Due: 12/01/14**Regulatory Requirements & Project Information Requirements** Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State / Fed Program _____ Criteria _____

Additional Project Information:

| | | | |
|---|---|------------------------------------|------------------------------------|
| ANALYSIS | | SAMPLE INFO | |
| VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 824 <input type="checkbox"/> 524.2 | SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH | Filtration | <input type="checkbox"/> Field |
| METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> MCP 15 | METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 | <input type="checkbox"/> Lab to do | |
| EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | Preservation | <input type="checkbox"/> Lab to do |
| PCB | TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | | |
| Sample Comments | | TOTAL # BOTTLES | |

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler Initials |
|--------------------------------|---------------------------|--------------|----------|---------------|------------------|
| | | Date | Time | | |
| <u>27916</u> -01 | <u>LOWER 88</u> | <u>11/17</u> | <u>-</u> | <u>S</u> | <u>JD</u> |
| -02 | <u>LEARY 16 CHARACTER</u> | <u>11/17</u> | <u>-</u> | <u>S</u> | <u>JD</u> |
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- Container Type**
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle
- Preservative**
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

| | |
|----------------|----------|
| Container Type | <u>G</u> |
| Preservative | <u>-</u> |

| | | | |
|--------------------|----------------------|--------------------|----------------------|
| Relinquished By: | Date/Time | Received By: | Date/Time |
| <u>[Signature]</u> | <u>11/20/14 1724</u> | <u>[Signature]</u> | <u>11/20/14 1724</u> |

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.
FORM NO: 01-01 (rev. 12-Mar-2012)

Acton Conservation Land Naming Guidelines

Revised 19 January 2017

Background

Historically most Acton Conservation Lands are named for a prominent, natural feature located within the parcel. Often when a property is first purchased, its name references the seller or former owner. Later a permanent name is chosen, sometimes through a formal process, and sometimes through grassroots common usage. Smaller parcels not given a name are referred to by their civic street address. Most of our conservation lands are conglomerations of many tax parcels acquired at different times. Some consist of non-contiguous lots.

It is desirable to agree on the names so they can be listed consistently in the Open Space and Recreation Plan (OSRP); on trailhead signage; on paper maps; and on various online maps. To establish a process of assigning new names to Acton conservation lands, the following guidelines are proposed:

Guidelines

When choosing a future name, the following will be considered, in priority order:

1. Is there a legally-mandated name, (check deeds, town meeting votes, and conservation restrictions)?
2. If the land was donated, does it reflect the wishes of the donor?
3. Does the land serve a special purpose (e.g. Acton Arboretum)?
4. If it is adjacent or proximal to an existing conservation land, should it assume the same name (e.g. extending Bulette to include the land obtained from Anderson)?
5. Is there a significant natural feature such as a named hill, brook, or pond, worthy of recognition (e.g. Grassy Pond)?
6. Is there a significant historical property owner worthy of recognition (e.g. Pacy)?
7. Is the land local to a particular neighborhood (e.g. Patriots Hill)?
8. Is there some other noteworthy natural or man-made feature (e.g. Robbins Mill)?

These guidelines were developed by looking at existing names. It is not the intention of this policy to rename well established lands, even if the current name does not conform to this set of priorities.

Names should not get too long; however it is important to retain significant history. Therefore, the name "Town Forest" will be retained, as is historically appropriate. Particularly small parcels (less than 10 acres total) will not be named, but will be referred to by their street address.

Procedure for naming a conservation land

1. Seek the input of any entities that may hold a CR on the property, such as a land trust.
2. The Land Stewardship Committee votes on a recommendation at a publicly noticed meeting.
3. The proposed name is brought to the Conservation Commission for approval.
4. A new name is publicized by revising the following: the Acton Trails web site; Acton's printed *Guide to Conservation Lands*; Acton Natural Resources' Land Chart as used in the Open Space and Recreation Plan; Open Street Maps; Google Maps; signs at the conservation land entrances; Acton's web based trail maps; any printed trail maps; Acton's *MapGeo* GIS database.

The following are current conservation land names:

(* shows the number of discontinuous parcels)

Named for special function/purpose:

Acton Arboretum

Acton Canoe Launch

Camp Acton Conservation Land

North Acton Community Gardens
Town Forest

Named for a natural feature (hill, pond or brook)

Grassy Pond Conservation Land *3
Great Hill Conservation Land
Guggins Brook Conservation Land
Heath Hen Meadow Conservation Land *3
Nagog Hill Conservation Land
Nashoba Brook Conservation Land *2
Pratts Brook Conservation Land *2
Spring Hill Conservation Land
Wills Hole Conservation Land *2
Wright Hill Conservation Land

Named for a previous owner:

Bulette Conservation Land
Jenks Conservation Land
Pacy Conservation Land
Wetherbee Conservation Land
Caouette Simeone Farm Land (preliminary name)
Monsen Conservation Land (preliminary name)
Putnam Conservation Land (preliminary name)
Steinman and McGloin Conservation Land (preliminary name) *2

Named for a nearby street or neighborhood:

Arborwood Conservation Land (preliminary name)
Flint Road and West Acton Conservation Land (preliminary name)
Patriots Hill Conservation Land (preliminary name)

Named for other nearby natural or man-made feature

Robbins Mill Conservation Land *2
Stoneymeade Conservation Land (nearby farm)

Unnamed:

915 Main Street
52 Harris Street, Rear
145 Great Road, Rear
2 Minot Avenue, Rear
41 Tuttle Drive
53 Stow Street (preliminary name) *2
46 Martin Street
133 River Street
176 Central Street (preliminary name)

BDA 1-19-2017