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Executive Deputy Commissioner

February 09, 2016

William Welling, Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, BURE
625 Broadway
Albany, NY 12233-7017

Re: Site 401031, 120 New Scotland Avenue, Albany

Dear Mr. Welling,

Attached you will find the 2015 Periodic Review Report and Certification Form for the Wadsworth Center's inactive hazardous waste site at 120 New Scotland Avenue.

If you have any questions or require further information, please contact me.

Sincerely,

David Hill, CIH
Director of Safety

Attachments

Periodic Review Report For NYS DOH Wadsworth Center (Site No. 401031) Albany, New York

Prepared for

New York State Department of Environmental Conservation 625 Broadway Albany, New York 12233

2015 Report

Prepared by

William Battesh, Associate Industrial Hygienist

CONTENTS

LIST OF FIGURES & TABLES

1. EXECUTIVE SUMMARY

This Periodic Review Report (PRR) has been prepared to document the ongoing performance, effectiveness, and protectiveness of the selected remedy at the NYS DOH Wadsworth Center site as required by 6 New York Code of Rules and Regulations Part 375. The Wadsworth Center site (New York State Department of Environmental Conservation [NYSDEC] Site No. 401031) is located in the city of Albany, at the rear of property at 120 New Scotland Avenue (Figures 1 and 1a).

The overall purpose of this report is to demonstrate that the remedy selected in the Record of Decision (ROD) issued in March 1992 is protecting groundwater and showing current contamination concentrations in ground water are not migrating, and therefore not impacting human health or the environment. Originally the groundwater monitoring program at the Wadsworth Center site consisted of collecting groundwater samples and recording ground water elevations from three monitoring wells every fifth quarter. An additional well was located to the West of the site on adjacent property, and well 8S on adjacent property to the South was replaced after being paved over by the property owner. The site map with well locations is illustrated in Figure 2. The interpreted ground water map for the June 2015 sampling is illustrated in Figure 3. The June 2015 VOC sampling results are summarized in Table 1.

2. SITE OVERVIEW

After the Wadsworth Center reported past practices of ground disposal of chemical waste at 120 New Scotland Avenue, the location was listed as an inactive waste burial site. The firm of Environmental Resources Management was contracted to perform Remedial Investigation activities (performed in 1990 and 1991), develop the remedial plan, and perform required monitoring and testing. They have subsequently been involved in all aspects of the program management for this inactive waste site.

In 1992 the ROD was issued and the Remedial Plan developed. In August of 1993 the Order on Consent was issued. The Remedial Plan included installation of a geomembrane cap with vents and a ground water pump and treat system, and deed restrictions to eliminate disturbance of the cap area. The area covered by the cap would include a section of property owned by the Christian Brothers Academy (CBA). That piece of property was eventually purchased by DOH to maintain institutional control over the cap area.

The pump and treat system operated under the Operations and Maintenance Plan for roughly 7 years. Water analysis reports indicated that the system was not effectively removing contaminants as intended, so a request was made to DEC to allow DOH to remove the system. Approval for removal was granted in 2000, completed in 2001, and the decommissioning report approved in Spring 2002.

Secondary to the pump and treat system was fencing and access control. While the pump and treat system was operational, the plan was followed as required and fencing and access controls were maintained. When the pump and treat system was removed, the fencing and access controls were also eventually removed. As part of the pump and treat system removal plan, the original Order on Consent was modified to include a provision for monitoring ground water, whereby certain shallow wells would be sampled every fifth quarter to evaluate water levels and determine if contaminants were migrating from the original site. Three wells had been monitored according to plan. Those Groundwater Reports are on file for Dec. ‘03, March ‘05, September ‘06, Dec. ‘07, March ‘09, June 2010, and September 2011. As mentioned above, a fourth well was added to the matrix, and the original well (8S) that was covered over has since been replaced and sampled. All four wells are currently able to be monitored.

Vapor intrusion was evaluated in 2009, through a combination of soil vapor point tests (Geoprobe), internal building air samples, and analysis of building construction, ventilation, and space uses. Sample results showed no abnormal levels that may be attributable to the inactive burial site, and the subsequent NFA memo from DEC was issued.

3. REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

3.1 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS CERTIFICATION

Engineering Controls (EC) were approved for removal and are no longer applicable to the site, with the exception of the cover system, which is still in place.

Institutional Controls (IC) could not originally be certified as land use restrictions could not be verified as being listed on deed documents. In 2012 the Wadsworth Center had a survey completed to reduce the area of the site to be considered as the "controlled area" (indicated in Figure 2), where land use and deed restrictions would apply. Due to additional information that was discovered, the survey was revised in April of 2013, with deed restrictions, and subsequently filed with the Albany County Clerk's Office (see figure 4).

3.1.1 Institutional Controls/Engineering Controls - Requirements and Compliance

The ICs/ECs applied at the site are in place as documented on the survey included as Figure 4. Land use restriction on deed documents have been recorded, along with the Declaration of Covenants and Restrictions document.

An area of chain link fence was erected as a security barrier over a portion of the cap area, but the depth of footings was kept shallow so as not to impact the function/integrity of the site cap. Any future such activity will be subject to the Site Management Plan.

A small concentration (< NYSDEC standard) of methyl tert-butyl ether was detected in one of the wells. There is currently no indication of potential impact on public health or the environment.

Appendix A- From August 25, 2015 through September 14, 2015 approximately a 45 foot by 45 foot temporary repair was completed in the David Axelrod Institute (DAI) parking lot above capped area of the inactive Waste Site. Appendix A summarizes the excavation and sampling activities completed for the repaired area. No penetration of the cap was noted. Soil samples from the excavated stock piles were analyzed for TCLP metals. Reported TCLP metal analysis were either below the laboratory detection limits or below the United Stated Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) maximum regulatory level concentrations for toxicity of hazardous waste as listed in 40 CFR Part 261.21 and 261.24.

3.2 MONITORING PLAN COMPLIANCE

The Wadsworth Center has submitted a Site Management Plan to DEC. Currently PRR submissions are required annually.

As set forth in the modified Order on Consent, fifth quarter well monitoring has proceeded according to schedule. However, since well 8S to the South of the site was covered over, the Wadsworth Center secured an access agreement with the property owner to allow replacement of the monitoring well and subsequent access for continued monitoring. Monitoring well locations are detailed in Figure 2.

3.2.1 Groundwater Sampling

Groundwater samples have routinely been collected by qualified firms and analyzed by a NYSDOH approved environmental testing laboratory. Historically samples were analyzed for VOCs by USEPA Method 8260B, in accordance with the NYSDEC Analytical Services Protocol. The June 2015 samples (collected by Adirondack Environmental Services, were analyzed for TLC VOCs using USEPA Method 8260C, in accordance with the 1995 NYSDEC Analytical Services Protocol (ASP) Category B deliverable guidelines.

During the previous sampling event (3/17/2014), none of the four monitoring wells detected TCL VOCs concentration above laboratory detection limits. During the 6/26/2015 sampling methyl tert-butyl ether was detected in MW-8SR at 5.7 ug/L, which is below the NYSDEC Ambient Water Quality Standard (AWQS) of 10 µg/L. No other VOCs were detected above laboratory reporting limits in ground water collected from the shallow monitoring wells during the 6/26/2015 monitoring. Available historical data of detectable VOC's from ground water sampling reports are summarized in Table 1. Ground water elevations and depth to water measurements for all sampling events are summarized in Table 2.

4. CONCLUSIONS

Concentrations of methyl tert-butyl ether (MTBE) in MW-8S had increased somewhat since first appearing in the December 2007 sampling. Although this compound also appeared in well 11S during the December 2007 sampling event, it has not been detected in that well since that sampling. It was also not detected in any of the wells in the most recent sampling event in June 2015. The actual source of this compound is not definite, but since it has also been a fuel additive, one possibility is that the MTBE may be from vehicle fuel infiltrating from the parking lot near where the well is located. Although well 8S is apparently down gradient, if the waste site were the source of the contaminant, it would be reasonable to expect the appearance of MTBE in well 11S in subsequent samplings. It would also be reasonable to expect the appearance of other contaminants, originally found in the "site", in one of the down gradient wells. Continued monitoring of the current wells will help evaluate the source and detail if there is actual movement from the cap site.

The Wadsworth Center again secured an access agreement in 2015 with the property owner to the South of the site to allow access for continued monitoring.

Part of an annual review process, included in the SMP, is the reiteration to staff that official site restrictions are in place to ensure no projects/activities are undertaken within the site boundary without proper review and approval by the site coordinator and the DEC.

The asphalt cover system, while maintaining its original intent, has developed cracks with vegetation. This issue was raised with Facilities Management. Laboratory Operations and Facilities Management are procuring funding for a repaving project that is anticipated to be completed by the fall of 2016. The Wadsworth Center will be seeking guidance from DEC as to requirements that may need to be met for this type of project.

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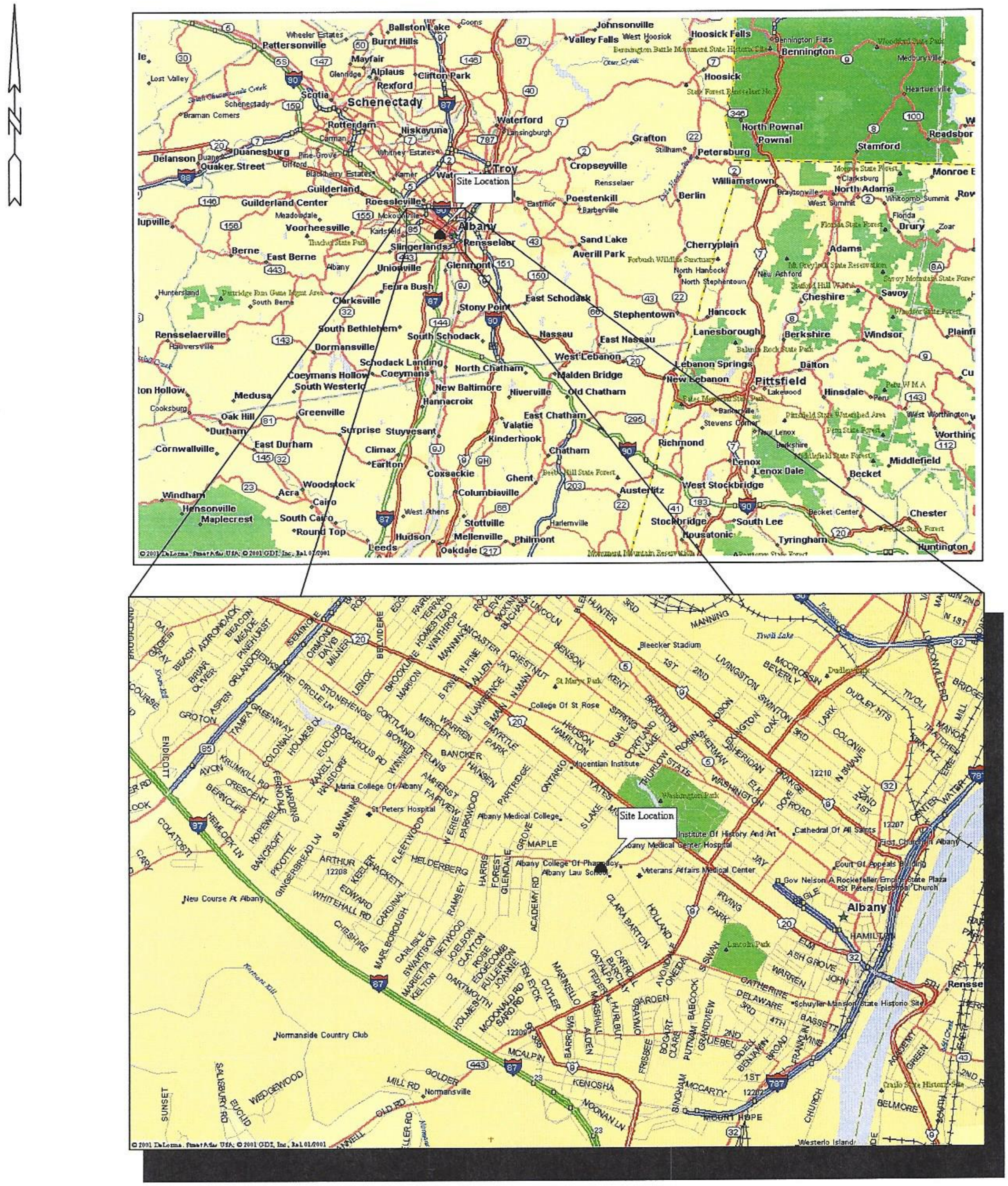
Figures



SITE LOCATION MAP
DAVID AXELROD FACILITY
ALBANY, NEW YORK

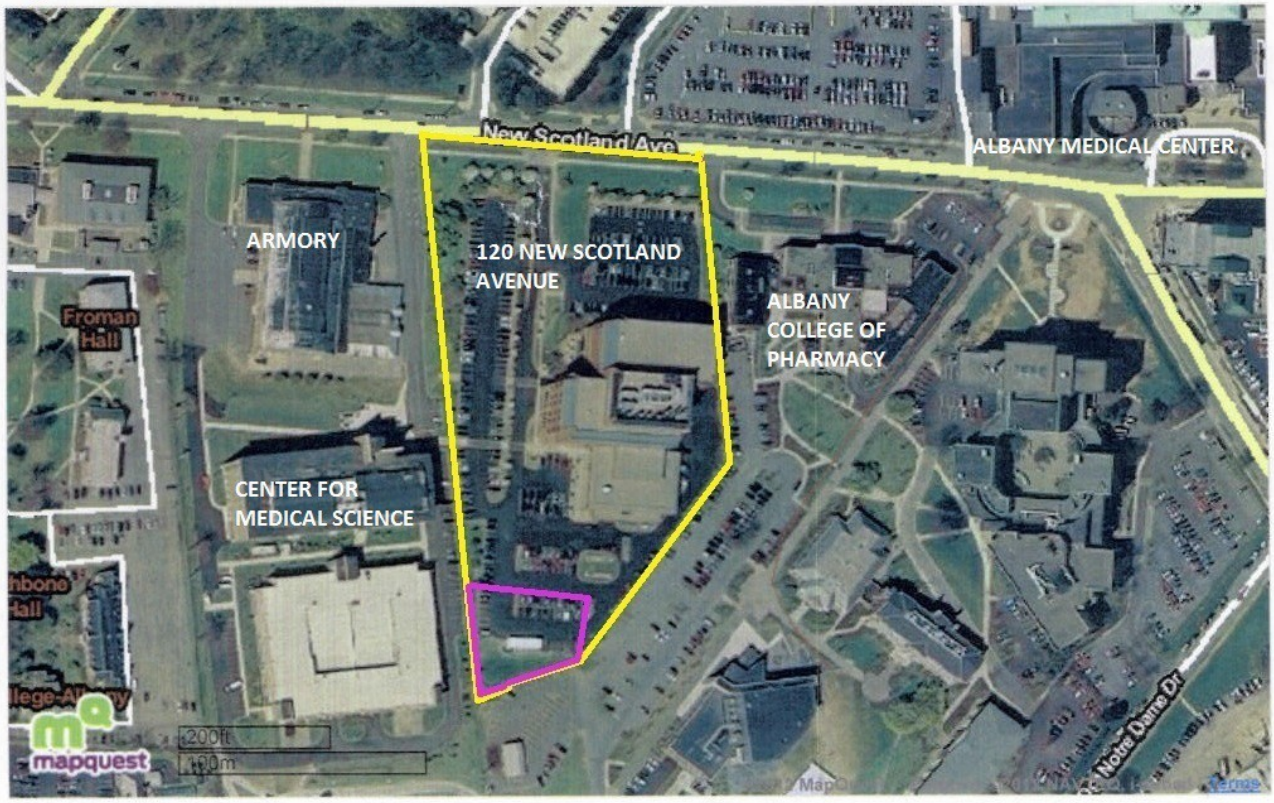
PREPARED FOR
NYS DEPARTMENT OF HEALTH

ERM-Northeast
ERM

SCALE	FIGURE
AS SHOWN	1
DATE 09/06	

PROJECT #0028555

Figure 1a - Site and Site Boundaries

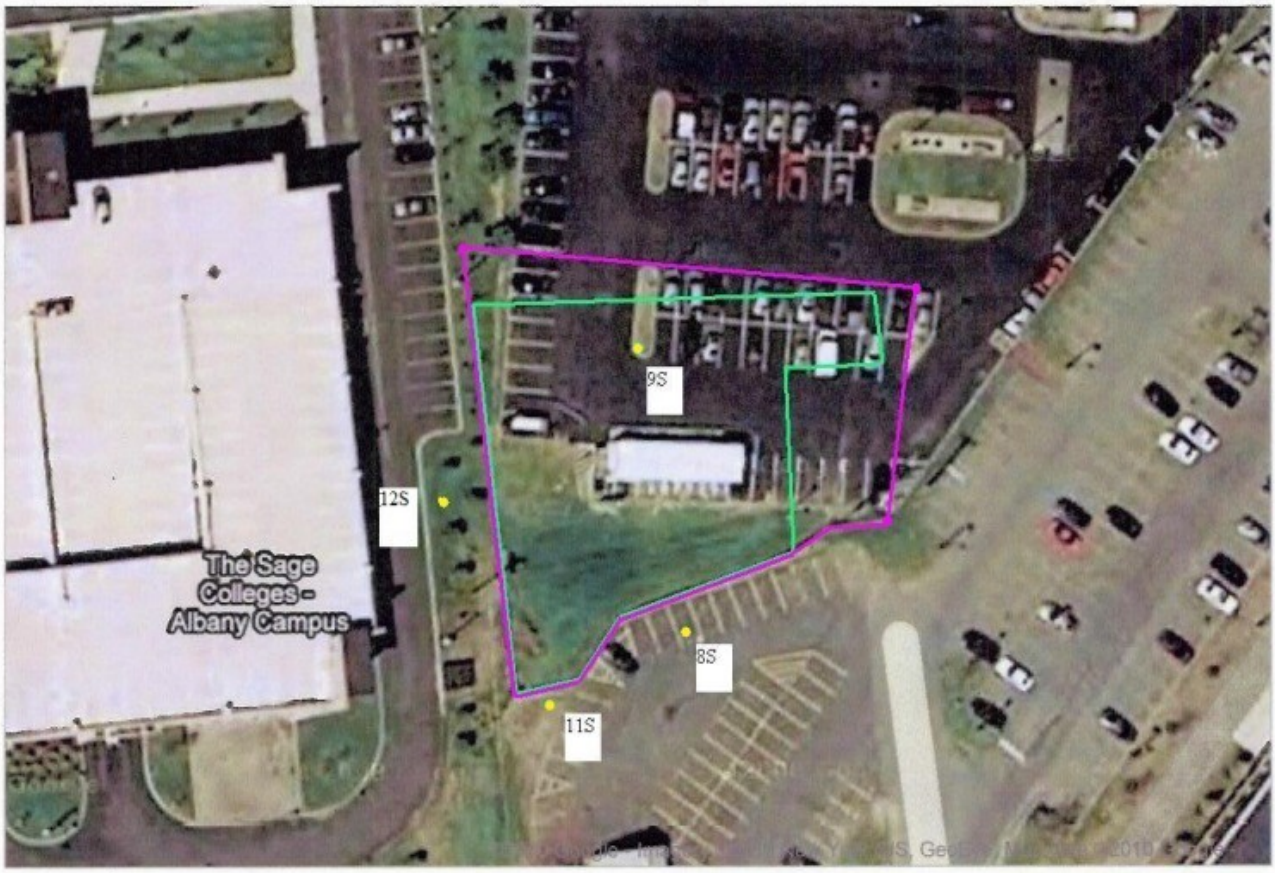


N

Approximate Controlled Area Boundary

Approximate Property Boundary

Figure 2 - Site Map with Well Locations



Approximate Cap Boundary

Monitoring Well Locations (12S, 8S, 9S, 11S)

Proposed Area Subject to SMP

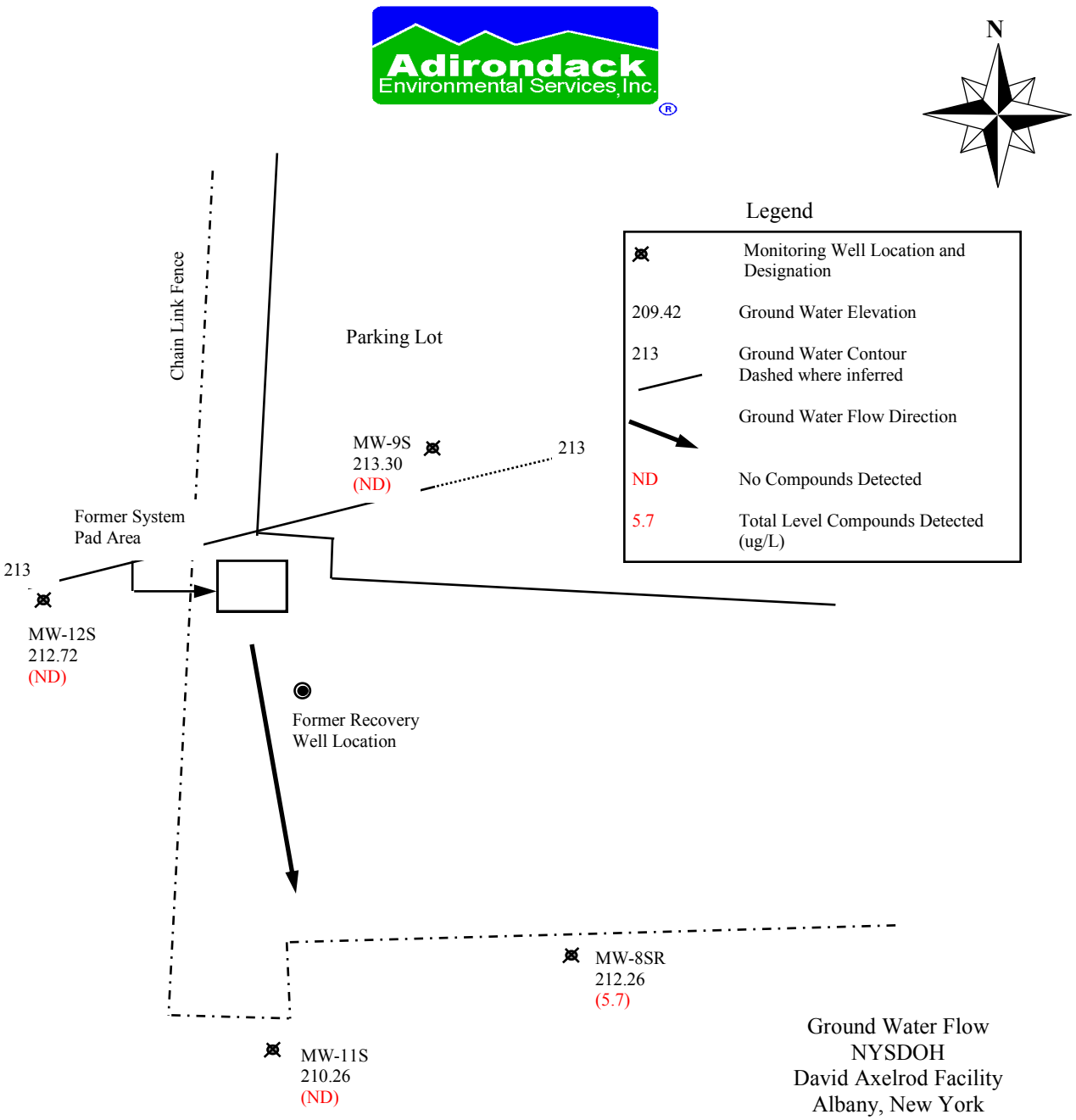
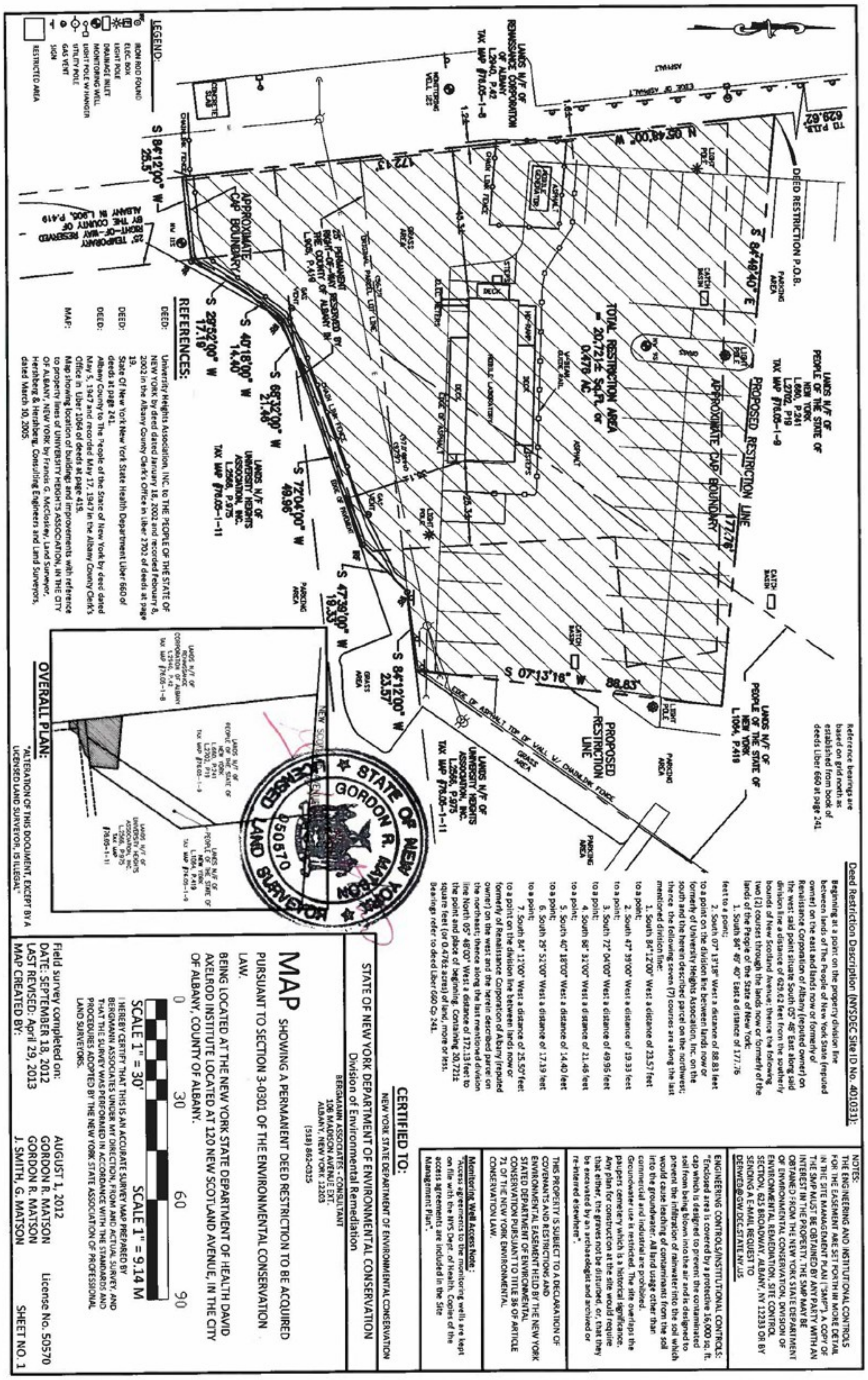


Figure 3

Notes: Locations are estimated and approximate

Figure 4 – Survey with Deed Restrictions



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Tables

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Table 1
Summary of Groundwater Elevation Data
Axelrod Facility
Albany, New York

AES project: 150626055

Sample Location / Date Sampled	NYSDEC Standard	MW-8S 12/22/2003	MW-9S 12/22/2003	MW-10S 12/22/2003	MW-11S 12/22/2003	MW-8S 3/2/2005	MW-9S 3/2/2005	MW-10S 3/2/2005	MW-11S 3/2/2005
TCL VOCs (ug/L)									
Methyl tert-butyl ether	10	U	U	NS	U	U	U	NS	2.10

Sample Location / Date Sampled	NYSDEC Standard	MW-8S 9/7/2006	MW-9S 9/7/2006	MW-10S 9/7/2006	MW-11S 9/7/2006	MW-8S 12/4/2007	MW-9S 12/4/2007	MW-10S 12/4/2007	MW-11S 12/4/2007
TCL VOCs (ug/L)									
Methyl tert-butyl ether	10	U	U	NS	**19 J**	8.24 J	U	NS	6.91 J

Sample Location / Date Sampled	NYSDEC Standard	MW-8S 3/19/2009	MW-9S 3/19/2009	MW-10S 3/19/2009	MW-11S 3/19/2009	MW-8S 6/8/2010	MW-9S 6/8/2010	MW-10S 6/8/2010	MW-11S 6/8/2010
TCL VOCs (ug/L)									
Methyl tert-butyl ether	10	**13**	U	NS	U	**13**	U	NS	U

Sample Location / Date Sampled	NYSDEC Standard	MW-8S 9/8/2011	MW-9S 9/8/2011	MW-11S 9/8/2011	MW-12S 9/8/2011	MW-8SR 1/30/2013	MW-9S 1/30/2013	MW-11S 1/30/2013	MW-12S 1/30/2013
TCL VOCs (ug/L)									
Methyl tert-butyl ether	10	NS	U	U	U	5.52	U	U	U
Ethyl Ether	NS	NS	U	U	U	54.2	1.32	U	U
Di-isopropyl ether	NS	NS	U	U	U	2.87	U	U	U
1,4-Dioxane	NS	NS	U	U	U	398	U	U	U

Sample Location / Date Sampled	NYSDEC Standard	MW-8SR 3/17/2014	MW-9S 3/17/2014	MW-11S 3/17/2014	MW-12S 3/17/2014	MW-8SR 6/26/2015	MW-9S 6/26/2015	MW-11S 6/26/2015	MW-12S 6/26/2015
TCL VOCs (ug/L)									
Methyl tert-butyl ether	10	U	U	U	U	5.7	U	U	U

NOTES:
U = Not Detected above the laboratory detection limits
NYSDEC Standards - NYSDEC Ambient Water Quality Standards - TOGS 1.1.1;
NS = No standard or guidance value given
TCL VOCs = Target Compound List Volatile Organic Compounds
ug/L = micrograms per liter
Bold Text - Above the NYSDEC Standard
J = Estimated Value
- Only those analytes that were detected in at least one sample are presented.
- All samples analyzed for TCL VOCs by EPA Method 8260
- MW-10S was not sampled (NS) since the well was destroyed.
- MW-8S was not sampled (NS) since the well was covered with new asphaltic pavement.

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Table 2
Summary of Groundwater Elevation Data
Axelrod Facility
Albany, New York

AES project: 150626055

Well ID	MW-8S	MW-9S	MW-11S	MW-12S
Elevation at Top of Casing	216.42	219.64	219.39	220.94
Total Depth of Well	17.92	19.88	16.35	19.75
Screen Length	10	15	10	10
Date				
12/22/2003	211.74	213.24	212.17	NA
3/2/2005	211.40	213.00	211.54	NA
9/7/2006	211.27	212.42	211.41	NA
12/4/2007	211.90	213.22	211.99	NA
3/19/2009	212.36	213.63	212.31	NA
6/8/2010	211.56	212.59	211.47	NA
9/8/2011	NM	214.32	214.97	216.88
1/30/2013	211.77	212.74	212.01	212.64
3/17/2014	209.42	213.21	212.99	216.89
6/26/2015	212.26	213.30	210.26	212.72

NOTES:
- All measurements reported in feet.
NA - Not Applicable - MW-12S installed April 8, 2011
NM = Not Measured (Well was covered with new asphaltic pavement since June 2010 sampling event).
* - Replacement Well MW-8SR installed January 26, 2013 - Elevation TOC = 216.88
Total depth of replacement well MW-8SR = 17.42 feet and screen length is 10 feet.

Depth to Water Data	MW-8S MW-8SR *	MW-9S	MW-11S	MW-12S
Date				
12/22/2003	4.68	6.40	7.22	NA
3/2/2005	5.02	6.64	7.85	NA
9/7/2006	5.15	7.22	7.98	NA
12/4/2007	4.52	6.42	7.40	NA
3/19/2009	4.06	6.01	7.08	NA
6/8/2010	4.86	7.05	7.92	NA
9/8/2011	NM	5.32	4.42	4.06
1/30/2013	5.11 *	6.90	7.38	8.30
3/17/2014	7.46	6.43	6.40	4.05
6/26/2015	4.62	6.34	9.13	8.22

September 14, 2015

Mr. Samuel Gleason
Project Manager
Dormitory Authority of the State of New York
515 Broadway
Albany, New York 12207

RE: David Axelrod Institute Parking Lot Repair Environmental Monitoring

Dear Mr. Gleason:

MJ Engineering & Land Surveying P.C., (MJ) has prepared this summary report for an environmental investigation recently completed at the the New York State Department of Health (NYSDOH) Wadsworth Center (WC). This report summarizes excavation and sampling activities completed for an approximate 45 foot by 45 foot temporary repair work area (Site) associated with the David Axelrod Institute (DAI) parking lot. The DAI is located at 120 New Scotland Avenue, Albany, New York. The Site, located in the southernmost portion of the DAI parking lot, is located within an inactive hazardous waste disposal site containing soil impacted with halogenated and non-halogenated solvents that is reportedly capped approximately 18 inches below the parking lot pavement. Since parking lot repairs were planned within this inactive hazardous waste area, MJ was contacted to provide environmental oversight and sampling during construction. **Figure 1** and **2** provide a general overview of the DAI parking lot and the approximate Site location, respectively.

On August 25, 2015, MJ provided on-site monitoring for the excavation activities and conducted waste characterization soil sampling for the excavated stockpiled soil. Pavement excavation and repair activities were performed by the Site contractor, Callanan Industries, Inc. (Callanan).

Summary of Excavation Activities

Callanan initiated the excavation of the parking lot on August 25, 2015. Asphalt and underlying soil were placed into a designated stockpile area located approximately 30 feet northwest from the excavated area.

Initial depth of the excavation was approximately 16 inches below grade at the southern end of the Site, but was later modified to 12 inches as to prevent exposure of the underlying capped area. A layer of geogrid, unassociated with the cap, was encountered at a depth of approximately 10 inches below grade and was stockpiled along with the excavated material. There was no observation of the cap throughout the duration of excavation activities.

Mr. Will Welling of the New York State Department of Environmental Conservation (NYSDEC) arrived onsite during excavation activities to inspect the project. Mr. Welling took photos and briefly spoke with MJ and Callanan about the progress of the project.

Following the excavation of the asphalt and underlying soil, Callanan prepared the excavated area for fill using a roller to compact the remaining soil. New York State Department of Transportation (NYSDOT) Item 304.12 sub-base was backfilled into the excavated area in preparation of asphalt paving.

Summary of Soil Sampling

One waste characterization composite soil sample was collected by MJ from soil stockpiles and analyzed for Toxic Characteristic Leaching Procedure (TCLP) metals (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver, and Mercury) and ignitability. Six discrete subsamples from the stockpile were collected, combined, mixed and placed in a labeled sample jar. Following sample collection, MJ transported and relinquished the soil sample to Test America Laboratory, an Environmental Laboratory Approval Program (ELAP) certified laboratory, for analysis.

The reported metal concentrations for the soil sample are summarized in **Table 1** below. Reported metal concentrations were either below the laboratory detection limits or below the United Stated Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) maximum regulatory level concentrations for toxicity of hazardous waste as listed in 40 CFR Part 261.21 and 261.24. Ignitibility of the soil was tested in addition to TCLP metals. No detection of ignitability was present in the soil sample. The soil sample laboratory analytical report is provided in **Attachment 1**.

Table 1: Soil sample results in comparison to EPA maximum regulatory level concentrations.

METAL	UNIT	EPA REGULATORY LEVEL	SAMPLE #1
Arsenic	mg/kg	5	ND (<0.075)
Barium	mg/kg	100	0.784
Cadmium	mg/kg	1	ND (<0.02)
Chromium	mg/kg	5	ND (<0.05)
Lead	mg/kg	5	ND (<0.05)
Selenium	mg/kg	1	ND (<0.1)
Silver	mg/kg	5	ND (<0.05)
Mercury	mg/kg	0.2	ND (<0.0002)

ND – Below laboratory detection limits

On September 4, 2015, MJ returned to the site to confirm the completion of the paving process by Callanan. The approximately 70 cubic yards of stockpiled soil was removed from Site on September 14th by Callanan and transported to their facility in South Bethlehem. A photographic log of the excavation activities is provided in **Attachment 2.**

MJ appreciates the opportunity of working with DASNY and NYSDOH. If you have any questions regarding this report please contact Tom Binsfeld at (518) 371-0799.

Sincerely

Tom Binsfeld, CPEA
Director of Environmental Services

Michael D. Panichelli, P.E.
President

Attachments:

Figure 1:	DAI Parking Lot
Figure 2:	Site Location
Attachment 1:	Soil Sample Laboratory Analytical Report
Attachment 2:	Excavation Activity Photographic Log

FIGURE 1

DAI PARKING LOT

FIGURE 1
DAI PARKING LOT

Engineering and Land Surveying, P.C.

FIGURE 2

SITE LOCATION

FIGURE 2
SITE LOCATION

Engineering and Land Surveying, P.C.

ATTACHMENT 2

SOIL SAMPLE LABORATORY ANALYTICAL REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-100174-1
Client Project/Site: DAI Institute

For:
MJ Engineering & Land Surveying PC
1533 Crescent Road
Clifton Park, New York 12065

Attn: Mr. Tom Binsfeld

Melissa Deyo

Authorized for release by:
8/28/2015 3:54:39 PM

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Definitions/Glossary

Client: MJ Engineering & Land Surveying PC
Project/Site: DAI Institute

TestAmerica Job ID: 460-100174-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 460-100174-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative
460-100174-1

Receipt
The samples were received on 8/26/2015 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: MJ Engineering & Land Surveying PC
Project/Site: DAI Institute

TestAmerica Job ID: 460-100174-1

Client Sample ID: DAI Institute Waste Characterization #1 — Lab Sample ID: 460-100174-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	784	J	1000	27.5	ug/L	5		6010C	TCLP

This Detection Summary does not include radiochemical test results.

Client: MJ Engineering & Land Surveying PC
Project/Site: DAI Institute

TestAmerica Job ID: 460-100174-1

Client Sample ID: DAI Institute Waste Characterization #1
Date Collected: 08/25/15 13:05
Date Received: 08/26/15 09:45

Lab Sample ID: 460-100174-1
Matrix: Solid

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		50.0	9.3	ug/L		08/27/15 08:43	08/27/15 22:02	5
Arsenic	ND		75.0	22.1	ug/L		08/27/15 08:43	08/27/15 22:02	5
Barium	**784**	**J**	1000	27.5	ug/L		08/27/15 08:43	08/27/15 22:02	5
Cadmium	ND		20.0	11.6	ug/L		08/27/15 08:43	08/27/15 22:02	5
Chromium	ND		50.0	22.5	ug/L		08/27/15 08:43	08/27/15 22:02	5
Lead	ND		50.0	20.8	ug/L		08/27/15 08:43	08/27/15 22:02	5
Selenium	ND		100	33.8	ug/L		08/27/15 08:43	08/27/15 22:02	5

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.14	ug/L		08/27/15 10:30	08/27/15 13:58	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Burn Rate	ND		2.20	2.20	mm/sec			08/27/15 13:15	1
Percent Moisture	**7.5**		1.0	1.0	%			08/26/15 16:23	1
Percent Solids	**92**		1.0	1.0	%			08/26/15 16:23	1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 460-319172/1-A
Matrix: Solid
Analysis Batch: 319261

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319172

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		10.0	1.9	ug/L		08/27/15 08:43	08/27/15 22:37	1
Arsenic	ND		15.0	4.4	ug/L		08/27/15 08:43	08/27/15 22:37	1
Barium	ND		200	5.5	ug/L		08/27/15 08:43	08/27/15 22:37	1
Cadmium	ND		4.0	2.3	ug/L		08/27/15 08:43	08/27/15 22:37	1
Chromium	ND		10.0	4.5	ug/L		08/27/15 08:43	08/27/15 22:37	1
Lead	ND		10.0	4.2	ug/L		08/27/15 08:43	08/27/15 22:37	1
Selenium	ND		20.0	6.8	ug/L		08/27/15 08:43	08/27/15 22:37	1

Lab Sample ID: LCS 460-319172/2-A ^2
Matrix: Solid
Analysis Batch: 319261

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	500	463.0		ug/L		93	80 - 120
Arsenic	5000	4686		ug/L		94	80 - 120
Barium	10000	10300		ug/L		103	80 - 120
Cadmium	1000	1053		ug/L		105	80 - 120
Chromium	5000	5024		ug/L		100	80 - 120
Lead	5000	5210		ug/L		104	80 - 120
Selenium	1000	950.8		ug/L		95	80 - 120

Lab Sample ID: LB 460-319025/1-C
Matrix: Solid
Analysis Batch: 319261

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 319172

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		10.0	1.9	ug/L		08/27/15 09:03	08/27/15 23:43	1
Arsenic	ND		15.0	4.4	ug/L		08/27/15 09:03	08/27/15 23:43	1
Barium	ND		200	5.5	ug/L		08/27/15 09:03	08/27/15 23:43	1
Cadmium	ND		4.0	2.3	ug/L		08/27/15 09:03	08/27/15 23:43	1
Chromium	ND		10.0	4.5	ug/L		08/27/15 09:03	08/27/15 23:43	1
Lead	ND		10.0	4.2	ug/L		08/27/15 09:03	08/27/15 23:43	1
Selenium	ND		20.0	6.8	ug/L		08/27/15 09:03	08/27/15 23:43	1

Lab Sample ID: 460-100174-1 MS
Matrix: Solid
Analysis Batch: 319261

Client Sample ID: DAI Institute Waste Characterization #1
Prep Type: TCLP
Prep Batch: 319172

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	ND		500	472.4		ug/L		94	75 - 125
Arsenic	ND		5000	4767		ug/L		95	75 - 125
Barium	784	J	10000	10540		ug/L		98	75 - 125
Cadmium	ND		1000	1018		ug/L		102	75 - 125
Chromium	ND		5000	4868		ug/L		97	75 - 125
Lead	ND		5000	4953		ug/L		99	75 - 125
Selenium	ND		1000	1008		ug/L		101	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 460-100174-1 DU — **Client Sample ID: DAI Institute Waste Characterization #1**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 319261 — **Prep Batch: 319172**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	ND		ND		ug/L		NC	20
Arsenic	ND		ND		ug/L		NC	20
Barium	784	J	775.0	J	ug/L		1	20
Cadmium	ND		ND		ug/L		NC	20
Chromium	ND		ND		ug/L		NC	20
Lead	ND		ND		ug/L		NC	20
Selenium	ND		ND		ug/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-319216/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 319279 — **Prep Batch: 319216**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.14	ug/L		08/27/15 10:30	08/27/15 15:00	1

Lab Sample ID: LCS 460-319216/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 319279 — **Prep Batch: 319216**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	5.07		ug/L		101	80 - 120

Lab Sample ID: LB 460-319025/1-D — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 319279 — **Prep Batch: 319216**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.14	ug/L		08/27/15 10:30	08/27/15 14:31	1

Lab Sample ID: 460-100174-1 MS — **Client Sample ID: DAI Institute Waste Characterization #1**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 319279 — **Prep Batch: 319216**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		5.00	5.26		ug/L		105	80 - 120

Lab Sample ID: 460-100174-1 DU — **Client Sample ID: DAI Institute Waste Characterization #1**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 319279 — **Prep Batch: 319216**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	ND		ND		ug/L		NC	20

Method: 1030 - Ignitability, Solids

Lab Sample ID: 460-100174-1 DU
Matrix: Solid
Analysis Batch: 319271

Client Sample ID: DAI Institute Waste Characterization #1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Burn Rate	ND			ND		mm/sec				NC	10

Method: Moisture - Percent Moisture

Lab Sample ID: 460-100174-1 DU
Matrix: Solid
Analysis Batch: 319020

Client Sample ID: DAI Institute Waste Characterization #1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	7.5			7.5		%				0	20
Percent Solids	92			92		%				0	20

Metals

Leach Batch: 319025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-100174-1	DAI Institute Waste Characterization #1	TCLP	Solid	1311	
460-100174-1 DU	DAI Institute Waste Characterization #1	TCLP	Solid	1311	
460-100174-1 MS	DAI Institute Waste Characterization #1	TCLP	Solid	1311	
LB 460-319025/1-C	Method Blank	TCLP	Solid	1311	
LB 460-319025/1-D	Method Blank	TCLP	Solid	1311	

Prep Batch: 319172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-100174-1	DAI Institute Waste Characterization #1	TCLP	Solid	3010A	319025
460-100174-1 DU	DAI Institute Waste Characterization #1	TCLP	Solid	3010A	319025
460-100174-1 MS	DAI Institute Waste Characterization #1	TCLP	Solid	3010A	319025
LB 460-319025/1-C	Method Blank	TCLP	Solid	3010A	319025
LCS 460-319172/2-A ^2	Lab Control Sample	Total/NA	Solid	3010A	
MB 460-319172/1-A	Method Blank	Total/NA	Solid	3010A	

Prep Batch: 319216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-100174-1	DAI Institute Waste Characterization #1	TCLP	Solid	7470A	319025
460-100174-1 DU	DAI Institute Waste Characterization #1	TCLP	Solid	7470A	319025
460-100174-1 MS	DAI Institute Waste Characterization #1	TCLP	Solid	7470A	319025
LB 460-319025/1-D	Method Blank	TCLP	Solid	7470A	319025
LCS 460-319216/2-A	Lab Control Sample	Total/NA	Solid	7470A	
MB 460-319216/1-A	Method Blank	Total/NA	Solid	7470A	

Analysis Batch: 319261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-100174-1	DAI Institute Waste Characterization #1	TCLP	Solid	6010C	319172
460-100174-1 DU	DAI Institute Waste Characterization #1	TCLP	Solid	6010C	319172
460-100174-1 MS	DAI Institute Waste Characterization #1	TCLP	Solid	6010C	319172
LB 460-319025/1-C	Method Blank	TCLP	Solid	6010C	319172
LCS 460-319172/2-A ^2	Lab Control Sample	Total/NA	Solid	6010C	319172
MB 460-319172/1-A	Method Blank	Total/NA	Solid	6010C	319172

Analysis Batch: 319279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-100174-1	DAI Institute Waste Characterization #1	TCLP	Solid	7470A	319216
460-100174-1 DU	DAI Institute Waste Characterization #1	TCLP	Solid	7470A	319216
460-100174-1 MS	DAI Institute Waste Characterization #1	TCLP	Solid	7470A	319216
LB 460-319025/1-D	Method Blank	TCLP	Solid	7470A	319216
LCS 460-319216/2-A	Lab Control Sample	Total/NA	Solid	7470A	319216
MB 460-319216/1-A	Method Blank	Total/NA	Solid	7470A	319216

General Chemistry

Analysis Batch: 319020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-100174-1	DAI Institute Waste Characterization #1	Total/NA	Solid	Moisture	
460-100174-1 DU	DAI Institute Waste Characterization #1	Total/NA	Solid	Moisture	
460-100174-1 MS	DAI Institute Waste Characterization #1	Total/NA	Solid	Moisture	
460-100174-1 MSD	DAI Institute Waste Characterization #1	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 319271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-100174-1	DAI Institute Waste Characterization #1	Total/NA	Solid	1030	
460-100174-1 DU	DAI Institute Waste Characterization #1	Total/NA	Solid	1030	

Lab Chronicle

Client: MJ Engineering & Land Surveying PC
Project/Site: DAI Institute

TestAmerica Job ID: 460-100174-1

Client Sample ID: DAI Institute Waste Characterization #1
Date Collected: 08/25/15 13:05
Date Received: 08/26/15 09:45

Lab Sample ID: 460-100174-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			319025	08/26/15 17:00	YAH	TAL EDI
TCLP	Prep	3010A			319172	08/27/15 08:43	QZY	TAL EDI
TCLP	Analysis	6010C		5	319261	08/27/15 22:02	CDC	TAL EDI
TCLP	Leach	1311			319025	08/26/15 17:00	YAH	TAL EDI
TCLP	Prep	7470A			319216	08/27/15 10:30	RBS	TAL EDI
TCLP	Analysis	7470A		1	319279	08/27/15 13:58	RBS	TAL EDI
Total/NA	Analysis	1030		1	319271	08/27/15 13:15	YAH	TAL EDI
Total/NA	Analysis	Moisture		1	319020	08/26/15 16:23	CJA	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: MJ Engineering & Land Surveying PC
Project/Site: DAI Institute

TestAmerica Job ID: 460-100174-1

Laboratory: TestAmerica Edison

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-16
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-15
New Jersey	NELAP	2	12028	06-30-15 *
New York	NELAP	2	11452	03-31-16
Pennsylvania	NELAP	3	68-00522	02-28-16
Rhode Island	State Program	1	LAO00132	12-30-15
USDA	Federal		NJCA-003-08	04-04-17

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

* Certification renewal pending - certification considered valid.

Method Summary

Client: MJ Engineering & Land Surveying PC
Project/Site: DAI Institute

TestAmerica Job ID: 460-100174-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
1030	Ignitability, Solids	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: MJ Engineering & Land Surveying PC
Project/Site: DAI Institute

TestAmerica Job ID: 460-100174-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-100174-1	DAI Institute Waste Characterization #1	Solid	08/25/15 13:05	08/26/15 09:45

TestAmerica Buffalo
TA - Buffalo, NY

Amherst, NY 14228
phone 716.691.2600 fax 716.691.7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

8/28/2015

Regulatory Program: ☐ DW ☐ NPDES ☑ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tom Binsfeld	Site Contact: Tom Binsfeld	Date: 8/25/15	COC No:
MJ Engineering & Land Surveying	Tel/Fax: 518-577-9959 (cell)	Lab Contact: A. Massa	Carrier:	1 of 1 COCs
1533 Crescent Rd	Analysis Turnaround Time			Sampler:
Clifton Park, NY 12065	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(518) 370-0799 Phone	TAT if different from Below 3 days			Walk-in Client:
(518) 371-0822 FAX	☑ 2 weeks			Lab Sampling:
Project Name: DAI Institute	☐ 1 week			
Site: Temporary Repair	☐ 2 days			Job / SDG No.: 100174
P O # (Project # 641.06)	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	TCLP (Metals)	Ignitability	Sample Specific Notes:
DAI Institute Waste Characterization # 1	8/25/15	1:05pm	C	Soil	1			X	X	-1
DAI Institute Waste Characterization # MS (matrix)	8/25/15	1:05pm	C	Soil	1			X	X	-1
DAI Institute Waste Characterization # MSD (matrix)	8/25/15	1:05pm	C	Soil	1			X	X	-1

3-Day RUSH

460-100174 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company: MJ Engineering	Date/Time: 8/25/15	Received by:	Company: TA-ALB	Date/Time: 8-25-15 13:34
Relinquished by:	Company: TA-ALB	Date/Time: 8/25/15 1800	Received by:	Company:	Date/Time:
Relinquished by: FedEx	Company:	Date/Time: 8/26/15 945	Received in Laboratory by:	Company: TA Edison	Date/Time: 8/26/15 945

CS# 59137 945 2.0/4.0°C IR#5

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 100174

Number of Coolers: 1 IR Gun #: 5

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.0 °C	4.0 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ Date: 8/26/15

Login Sample Receipt Checklist

Client: MJ Engineering & Land Surveying PC

Job Number: 460-100174-1

Login Number: 100174
List Number: 1
Creator: Lysy, Susan

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	591317
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.0°C IR#5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	NA: No analysis requiring residual chlorine check assigned

ATTACHMENT 3

EXCAVATION ACTIVITY PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

LOCATION:	PROJECT NO:
David Axelrod Institute, 120 New Scotland Avenue, Albany NY	641.06

PHOTOGRAPHIC LOG PLAN

PHOTOGRAPHIC LOG

LOCATION:	PROJECT NO:
David Axelrod Institute, 120 New Scotland Avenue, Albany NY	641.06

PHOTO ID: 1

DATE: 8/25/2015

DESCRIPTION: Excavated Area Approximately 16” in Depth

PHOTO ID: 2

DATE: 8/25/2015

DESCRIPTION: Geogrid Observed Approximately 10” Below Grade

PHOTOGRAPHIC LOG

LOCATION: David Axelrod Institute, 120 New Scotland Avenue, Albany NY

PROJECT NO: 641.06

PHOTO ID: 3

DATE: 8/25/2015

DESCRIPTION: Excavator Loading Excavated Materials Into Dump Truck

PHOTO ID: 4

DATE: 8/25/2015

DESCRIPTION: Designated Stockpile Northwest of Excavated Area

PHOTOGRAPHIC LOG

LOCATION:	PROJECT NO:
David Axelrod Institute, 120 New Scotland Avenue, Albany NY	641.06

PHOTO ID:
5

DATE:
8/25/2015

DESCRIPTION:
Temporary Stockpiles Located on Perimeter of Excavated Area

PHOTO ID:
6

DATE:
8/25/2015

DESCRIPTION:
Roller Compacting Remaining Soil Within Excavated Area

PHOTOGRAPHIC LOG

LOCATION:	PROJECT NO:
David Axelrod Institute, 120 New Scotland Avenue, Albany NY	641.06

PHOTO ID: 7

DATE: 9/3/2015

DESCRIPTION: Stockpile Covered With Poly

PHOTO ID: 8

DATE: 9/3/2015

DESCRIPTION: Completed Paved Excavated Area