



Soil and Land Use Technology, Inc.

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[www.salutinc.com](http://www.salutinc.com)

July 3, 2019

Department of General Services  
Office of Safety and Health, Facilities Division  
2000 14th Street NW, 5th Floor  
Washington, DC 20009

Subject:       Poured-in-Place Playground Surface Testing Summary Report  
                  Takoma Educational Campus  
                  7010 Piney Branch Road NW  
                  Washington, DC 20012

On June 21, 2019, a Soil and Land Use Technology, Inc. (SaLUT) Industrial Hygienist (IH) conducted lead testing on the poured-in-place (PIP) playground surface at Takoma Educational Campus, a property maintained by the Department of General Services (DGS), located at 7010 Piney Branch Road NW, Washington, DC 20012.

### **Site Description**

Takoma Education Center has a total of three playgrounds (PG). We numbered the PGs A, B, and C. All PGs totaled about 9255 ft<sup>2</sup> of PIP recycled rubber surfaces. PG A was the northeastern PG with about 3900 ft<sup>2</sup> of PIP surfaces. PG B is north of PG A, roughly runs north to south and was about 3280 ft<sup>2</sup> in size. PG C is the northernmost with approximately 2075 ft<sup>2</sup> PIP surfaces.

PG A seemed to be the oldest with multiple patches and several large holes, tears, splits, separations etc. PGs B and C seemed to be newer and in better shape. The weather at the time of the testing was hot (>90° F) and sunny with high winds of up to 30 mph.

### **Methodology**

The methodology for the onsite and laboratory testing is detailed in the *Poured-in-Place Playground Surfacing Testing Protocol*, dated June 27, 2019. In general, the following was conducted:

- Site reconnaissance
- Sampling layout and photograph documentation
- Lead screening with X-Ray Fluorescence (XRF)
- Collection of dust wipe samples
- Collection of bulk samples
- Field notes and sample documentation
- Laboratory analysis of bulk samples using Flame Atomic Absorption (Flame AA) on rinsate (wash) and cleaned bulk rubber material
- XRF of the collected dust-wipes

- Quality Control (QC) and Quality Assurance (QA)
- Data entry, initial analysis, and reporting

The results of the testing are tabulated below.

### Results

**Table 1: Results of the Bulk Sampling and Rinsate Analysis, June 21, 2019**

Sample No. ID	Sample Type / Material	Wash (ppm)	Rubber (ppm)
190621-MBA-324-B-1	Bulk / Rubber	<3000	50
190621-MBA-324-B-2	Bulk / Rubber	<5600	85
190621-MBA-324-B-3	Bulk / Rubber	<4500	150
190621-MBA-324-B-4	Bulk / Rubber	<17000	120
190621-MBA-324-B-5	Bulk / Rubber	<25000	<19
190621-MBA-324-B-6	Bulk / Rubber	120	<19
190621-MBA-324-B-7	Bulk / Rubber	240	<17
190621-MBA-324-B-8	Bulk / Rubber	110	<19
190621-MBA-324-B-9	Bulk / Rubber	170	85
190621-MBA-324-B-10	Bulk / Rubber	180	210
190621-MBA-324-B-11	Bulk / Rubber	170	<19
190621-MBA-324-B-12	Bulk / Rubber	190	22

Analyzed using EPA 7000B Flame Atomic Absorption

Note: mg/kg is equal to ppm

**Table 2: Results of the XRF Screening, June 21, 2019**

TIME	DURATION (secs)	SAMPLE #	LOCATION	Pb (ppm)	ERROR (+/-)
14:25	62.18	061921-tb-324-x-1	PG-A brown	36.81	8.41
14:32	42.83	061921-tb-324-x-2	PG-A brown	124.21	13.83
14:44	60.66	061921-tb-324-x-3	PG-A brown	257.04	15.79
14:51	60.43	061921-tb-324-x-4	PG-A yellow	17.53	7.25
14:58	61.48	061921-tb-324-x-5	PG-A black	32.33	6.22
15:06	31.95	061921-tb-324-x-6	PG-B red	127.77	16.99
15:33	52.17	190621-ahj-324-x-7	PG- B black	21.4	5.14
15:42	60.6	190621-ahj-324-x-8	PG- B red	31.37	7.95
15:54	67.36	190621-ahj-324-x-9	PG-C brown	309.95	17.81
16:08	76.55	190621-ahj-324-x-10	PG-C brown	159.38	13.08
16:19	69.15	190621-mba-324-x-11	PG-C black white	53.68	8.04
16:30	92.15	190621-mba-324-x-12	PG-C black white	98.79	10.41

ppm-parts per million

PG = Playground

**Table 3: Results of the Wipe Sampling XRF Analysis, Sampled June 21, 2019**

ANALYSIS TIME	TYPE	DURATION* <sup>1</sup> (secs)	SEQUENCE	SAMPLE #	PB (ug/ft <sup>2</sup> )	ERROR (+/-)
15:18	Cal	80.63	Final	Calibration	0.46	0.00
16:01	Wipe	400	Final	190621-thb-324-w-1	< LOD	5.70
16:18	Wipe	400	Final	190621-thb-324-w-2	< LOD	5.53
16:38	Wipe	400	Final	190621-thb-324-w-3	< LOD	5.86
16:54	Wipe	400	Final	190621-thb-324-w-4	< LOD	5.42
17:07	Wipe	400	Final	190621-thb-324-w-5	< LOD	5.80
17:35	Wipe	400	Final	190621-thb-324-w-6	< LOD	5.60
17:48	Wipe	400	Final	190621-thb-324-w-7	< LOD	5.85
18:03	Wipe	400	Final	190621-thb-324-w-9	< LOD	5.25
18:23	Wipe	400	Final	190621-thb-324-w-8	< LOD	5.53
18:38	Wipe	400	Final	190621-thb-324-w-10	< LOD	5.52
18:53	Wipe	400	Final	190621-mba-324-w-11	< LOD	5.14
19:12	Wipe	400	Final	190621-mba-324-w-12	< LOD	5.09
15:18	Cal	80.63	Final	Calibration	0.46	0.00

LOD = Limit of detection

\*1 – Duration is represented here as the total analysis time of 4 – 100 second analysis periods corrected by source energy (i.e. 100 second source duration was equal to 150 seconds actual time).

**Table 4: Results of Quality Assurance/Quality Control Wipe Sampling XRF Analysis vs. Laboratory EPA 7000B**

SAMPLE #	ANALYSIS METHOD	PB (ug/ft <sup>2</sup> )	ERROR (+/-)
190621-thb-324-w-3	XRF	< LOD	5.86
190621-thb-324-w-3-D	EPA 7000B	< 10	NA
190621-thb-324-w-5	XRF	< LOD	5.80
190621-thb-324-w-5-D	EPA 7000B	< 10	NA
190621-thb-324-w-10	XRF	< LOD	5.52
190621-thb-324-w-10-D	EPA 7000B	< 10	NA
190621-thb-324-w-12	XRF	< LOD	5.09
190621-thb-324-w-12-D	EPA 7000B	< 10	NA

EPA 7000B uses Flame Atomic Absorption (FLAA) done at AMA Analytical Laboratories.

LOD = Limit of Detection

### **Findings and Conclusions**

The bulk rubber sampling results indicated low levels of lead within the rubber surfacing material ranging from below detectable limits to 210 ppm. Additionally, lead in the rinsate (wash) samples indicated levels of lead from 110 to 240 ppm. Results of the XRF indicated screening levels of 17.5 to 310 ppm. Surface wipe samples were below detectable limits using XRF wipe sample analysis methods which was confirmed by duplicate sample analysis at AMA Analytical Laboratory using EPA 7000B methods.

The surface wipe sample represents surface dust that may be collected by children's hands, clothes, etc. The rinsate (wash) samples represent what lead may be readily absorbed if a child puts the bulk into their mouths and/or what may be deposited on their hands if they are handled. Both the surface wipe and the rinsate (wash) sample lead levels can be attributed to external sources, not the playground surfacing materials. The bulk samples indicate what lead is contained within the recycled rubber itself and which may be available if these rubber pieces were digestible.

Both the lead in bulk rinsate (wash water) and on the surfaces of the PIP playgrounds are in a matrix that potentially can be easily removed through regular maintenance and cleaning.

In conclusion, based on the current results of this investigation, the highest lead exposure risk is present in the dust more than the rubber itself.

Based on the findings and conclusions of this report, SaLUT provides the following initial recommendations:

1. Perform a lead hazard risk assessment combining and comparing all schools (scheduled for completion after the conclusion of testing).
2. In the interim, perform debris removal at and around the playground surfacing (scheduled for completion prior to school year 19/20 commencement).

Sincerely,



Senior Certified Industrial Hygienist  
Soil and Land Use Technology Inc. (SaLUT)



### **Attachments**

Attachment A - Laboratory Analytical Results and Chain-of-Custody Forms

Attachment B – Playground and Sample Location Maps

## **Attachment A**

### **Laboratory Analytical Results and Chain-of-Custody Forms**



# CERTIFICATE OF ANALYSIS



**Chain of Custody:** 307931  
**Client:** SaLUT, Inc.  
**Address:** 1818 New York Avenue, NE  
Suite 231  
Washington, DC 20002  
**Attention:** Mark Applegate

**Job Name:** Takoma (324) - Bulk Rubber  
**Job Location:** 7010 Piney Branch Road, NW, DC  
20012  
**Job Number:** 19-074  
**P.O. Number:** Not Provided

**Date Submitted:** 06/24/2019  
**Date Analyzed:** 06/29/2019  
**Report Date:** 06/29/2019  
**Date Sampled:** 06/21/2019  
**Person Submitting:** Mark Applegate

## Summary of Atomic Absorption Analysis for Lead

AMA Sample Number	Client Sample Number	Analysis Type	Sample Type	Reporting Limit	Final Result	Comments
307931-1	190621-MBA-324-B-1	Flame AA	Soil/Solid	19 mg/Kg	50 mg/Kg	
307931-2	190621-MBA-324-B-2	Flame AA	Soil/Solid	18 mg/Kg	85 mg/Kg	
307931-3	190621-MBA-324-B-3	Flame AA	Soil/Solid	19 mg/Kg	150 mg/Kg	
307931-4	190621-MBA-324-B-4	Flame AA	Soil/Solid	19 mg/Kg	120 mg/Kg	
307931-5	190621-MBA-324-B-5	Flame AA	Soil/Solid	19 mg/Kg	<19 mg/Kg	
307931-6	190621-MBA-324-B-6	Flame AA	Soil/Solid	19 mg/Kg	<19 mg/Kg	
307931-7	190621-MBA-324-B-7	Flame AA	Soil/Solid	17 mg/Kg	<17 mg/Kg	
307931-8	190621-MBA-324-B-8	Flame AA	Soil/Solid	19 mg/Kg	<19 mg/Kg	
307931-9	190621-MBA-324-B-9	Flame AA	Soil/Solid	18 mg/Kg	85 mg/Kg	
307931-10	190621-MBA-324-B-10	Flame AA	Soil/Solid	18 mg/Kg	210 mg/Kg	
307931-11	190621-MBA-324-B-11	Flame AA	Soil/Solid	19 mg/Kg	<19 mg/Kg	
307931-12	190621-MBA-324-B-12	Flame AA	Soil/Solid	19 mg/Kg	22 mg/Kg	

Analysis Method for Flame: Air, Wipes, Paints, and Soil/Solids: EPA 600/R-93/200(M)-7000B; Water: SM-3111B Analysis Method For Furnace: Air, Wipes, Paints, and Soil/Solids : EPA 600/R-93/200(M)-7010; Water: SM-3113B N/A = Not Applicable mg/Kg = parts per million (ppm) on a dry weight basis mg/L = parts per million (ppm) %Pb = percent lead on a dry weight basis ug = micrograms ug/L = parts per billion (ppb)  
Note: All samples were received in good condition unless otherwise noted.  
Note: All results have two significant digits. Any additional digits shown should not be considered when interpreting the result.

**Analyst(s):** Jean-Paul Littleton

See QC Summary for analytical results of quality control samples associated with these samples.

Air and Wipe results are not corrected for any blank results. Final results for air and wipe samples are based on client supplied information not verified by this laboratory.

All results are to be considered preliminary and subject to change unless signed by the Technical Director or Deputy.



## CERTIFICATE OF ANALYSIS

**Chain of Custody:** 307931

**Client:** SaLUT, Inc.

**Address:** 1818 New York Avenue, NE  
Suite 231  
Washington, DC 20002

**Attention:** Mark Applegate

**Job Name:** Takoma (324) - Bulk Rubber

**Job Location:** 7010 Piney Branch Road, NW, DC  
20012

**Job Number:** 19-074

**P.O. Number:** Not Provided

**Date Submitted:** 06/24/2019

**Date Analyzed:** 06/29/2019

**Report Date:** 06/29/2019

**Date Sampled:** 06/21/2019

**Person Submitting:** Mark Applegate

### Summary of Atomic Absorption Analysis for Lead

AMA Sample Number	Client Sample Number	Analysis Type	Sample Type	Reporting Limit	Final Result	Comments
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**Technical Director** George Land

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these Laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from us. Sample types, locations, and collection protocols are based upon the information provided by the persons submitting them and, unless collected by personnel of these Laboratories, we expressly disclaim any knowledge and liability for the accuracy and completeness of this information. Residual sample material will be discarded in accordance with the appropriate regulatory guidelines, unless otherwise requested by the client. This report must not be used to claim, and does not imply product certification, approval, or endorsement by NY ELAP, AIHA-LAP, or any agency of the Federal Government. All rights reserved. AMA Analytical Services, Inc.



## QC Summary for SDG #60706

### Overview

Analysis Type: Flame AA  
Sample Type: Soil/Solid  
Analysis Date: 06/29/2019

### Samples Included

307931-1 307931-10 307931-11 307931-12 307931-2 307931-3 307931-4 307931-5  
307931-6 307931-7 307931-8 307931-9

### Preparation Blank ✓

Result: -0.028 ppm

### Report Limit Verification Sample ✓

Percent Recovery: 92.9%

### Duplicates ✓

RPD: N/A

### Matrix Spike Analysis ✓

Spiked Sample Percent Recovery: 107.2%  
Spike Duplicate Percent Recovery: 103.0%  
RPD: 4.0%

### Matrix Blank ✓

Result: 0.086 ppm

### Laboratory Control Sample #1 ✓

Percent Recovery: 114.5%

### Laboratory Control Sample #2 ✓

Percent Recovery: 111.08%

### Reference Sample

Percent Recovery: N/A

### Calibration Curve ✓

Correlation: 0.999646

### Serial Dilution / Bench Spike

Serial Dilution RPD: N/A  
Bench Spike Percent Recovery: N/A

### Notes

Both Duplicate results are below the reporting limit, making RPD limits for these QC samples not applicable.



**Mailing/Billing Information:**

1. Client Name: Julius

2. Address 1: \_\_\_\_\_

3. Address 2: \_\_\_\_\_

4. Address 3: \_\_\_\_\_

5. Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

### Submittal Information:

1. Job Name: Takoma (324) 1610  
 2. Job Location: 7010 Piney Branch Road, NW DC 20012  
 3. Job #: 19-074 P.O. #:  
 4. Contact Person: Mark Applegate Cell:  
 5. Collected by: Cell:

Reporting Info (Results provided as soon as technically feasible). If no TAT/Reporting Info is provided, AMA will assign defaults of 5-Day and email/fax to contacts on file.

<b>AFTER HOURS (must be pre-scheduled)</b> <input type="checkbox"/> 4 Hours <input type="checkbox"/> Late Night <input type="checkbox"/> Immediate    Date Due: _____ <input type="checkbox"/> 24 Hours    Time Due: _____ Comments: _____		<b>NORMAL BUSINESS HOURS</b> <input type="checkbox"/> 4 Hours <input type="checkbox"/> 3 Day <input type="checkbox"/> Same Day <input type="checkbox"/> 5 Day + <input type="checkbox"/> Results Required By Noon <input type="checkbox"/> Next Day    Date Due: _____ <input type="checkbox"/> 2 Day		<b>REPORT TO:</b> <input type="checkbox"/> Email: _____ <input type="checkbox"/> Email 2: _____ <input type="checkbox"/> Verbals: _____	
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## Asbestos Analysis

\*PCM Air – Please Indicate Filter Type: \_\_\_\_\_  
☐ NIOSH 7400 \_\_\_\_\_ (QTY)  
☐ Fiberglass \_\_\_\_\_ (QTY)

TEM Air\* – Please Indicate Filter Type: \_\_\_\_\_

☐ AHERA \_\_\_\_\_ (QTY)  
☐ NIOSH 7402 \_\_\_\_\_ (QTY)  
☐ Other (specify \_\_\_\_\_) \_\_\_\_\_ (QTY)

## PLM Bulk

☐ EPA 600 – Visual Estimate \_\_\_\_\_ (QTY) ☐ Pos Stop  
☐ EPA Point Count \_\_\_\_\_ (QTY)  
☐ NY State Friable 198.1 \_\_\_\_\_ (QTY)  
☐ Grav. Reduction ELAP 198.6 \_\_\_\_\_ (QTY)  
☐ Other (specify \_\_\_\_\_), \_\_\_\_\_ (QTY)

## MISC

☐ Asbestos Soil PLM\_\_ (Qual) PLM\_\_ (Quan) PLM/TEM\_\_ (Qual) PLM/TEM\_\_ (Quan)

\*It is recommended that blank samples be submitted with all air and surface samples

## TEM Bulk

☐ ELAP 198.4/Chatfield \_\_\_\_\_ (QTY)  
☐ NY State PLM/TEM \_\_\_\_\_ (QTY)  
☐ Residual Ash \_\_\_\_\_ (QTY)  
☐ Vermiculite \_\_\_\_\_

## TEM Dust\*

☐ Qual. (pres/abs) Vacuum/Dust\_\_\_\_\_ (QTY)  
☐ Quan. (s/area) Vacuum D5755-95 \_\_\_\_\_ (QTY)  
☐ Quan. (s/area) Dust D6480-99 \_\_\_\_\_ (QTY)

## TEM Water

☐ Qual. (pres/abs)\_\_\_\_\_ (QTY)  
☐ ELAP 198.2/EPA 100.2\_\_\_\_\_ (QTY)  
☐ EPA 100.1\_\_\_\_\_ (QTY)

☒ All samples received in good condition unless otherwise noted.  
(TEM Water samples \_\_\_\_\_ °C)

If field data sheets are submitted, there is no need to complete bottom section.

## Metals Analysis

☐ Pb Paint Chip \_\_\_\_\_ (QTY)  
☐ \*Pb Dust Wipe (wipe type \_\_\_\_\_), \_\_\_\_\_ (QTY)  
☐ \*Pb Air \_\_\_\_\_ (QTY)  
☒ Pb Soil/Solid 13 \_\_\_\_\_ (QTY)  
☒ Pb TCLP 13 \_\_\_\_\_ (QTY)  
☐ Drinking Water ☐ Pb \_\_\_\_\_ (QTY) ☐ Cu \_\_\_\_\_ (QTY) ☐ As \_\_\_\_\_ (QTY)  
☐ Waste Water ☐ Pb \_\_\_\_\_ (QTY) ☐ Cu \_\_\_\_\_ (QTY) ☐ As \_\_\_\_\_ (QTY)  
☐ Pb Furnace (Media \_\_\_\_\_) \_\_\_\_\_ (QTY)

## Fungal Analysis

Collection Apparatus for Spore Traps/Air Samples:\_\_\_\_\_

Collection Media \_\_\_\_\_

☐ \*Spore-Trap \_\_\_\_\_ (QTY)      ☐ Surface Vacuum Dust \_\_\_\_\_ (QTY)

☐ \*Surface Swab \_\_\_\_\_ (QTY)

☐ \*Surface Tape \_\_\_\_\_ (QTY)

☐ Other (Specify) \_\_\_\_\_ (QTY)

[illegible]

Print Name		Signature	Date	Time	Shipping Information
Relinquished by:			24		<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS
Received by:			6/25/19		<input checked="" type="checkbox"/> In-Person <input type="checkbox"/> Drop Box <input type="checkbox"/> Courier

## Non-Air Monitoring & Sampling Datasheet

Location address: Takoma (324) ~~7010~~ 7010 Piney Branch Rd, NW DC 20012

Sampler: Mark Applegate Sampling date: 6/21/19

General sampling notes: Bulk loose rubber bits

Sample #	Location/area	Material	Type	Area (ft <sup>2</sup> )	Analysis method	Notes:
<del>1</del>	A					Middle Area in between seats and slide / hole
190621-MBA-324-B-1						
<del>2</del>	A					Top of mat (Loss debris)
190621-MBA-324-B-2						
<del>3</del>	A					LOSE DEBRIS - JUNGLE GYM LOWER PULL UP BAR
190621-MBA-324-B-3						
<del>4</del>	A					LOSE DEBRIS - BOTTOM OF ROCK CLIMB
190621-MBA-324-B-4						
<del>5</del>	A					LOSE DEBRIS - BOTTOM OF YELLOW TWIST STEPS
190621-MBA-324-B-5						
<del>6</del>	B					BY 127 CLASSRM - WATER SPIGOT / Substrate
190621-MBA-324-B-6						
<del>7</del>	B					64 BLACK BOX
190621-MBA-324-B-7						

Notes:

Sampler signature: Mark Applegate Date: 6-21-19

Received by\*: DEG Lab: AMP Analytical Date: 6/24/2019

\*Receiver acknowledges that all samples were received in good order, properly containerized and preserved and that every sample was without damage and/or obvious tampering of custody seals.



## Non-Air Monitoring & Sampling Datasheet

Location address: TAKOMA (324) 7010 Piney Branch Rd. NW DC 20012

Sampler: Mark Applegate Sampling date: 6/21/19

General sampling notes: BULK loose rubber bits

Sample #	Location/area	Material	Type	Area (ft <sup>2</sup> )	Analysis method	Notes:
8	B					UNDER SOUTH OF JUNGLE GYM
190621-MBA-324-B-8						
9	C					Bottom of jungle gym slide
190621-MBA-324-B-9						
10	C					middle of the tire swing
190621-MBA-324-B-10						
11	C					Outside section of the bridge
190621-MBA-324-B-11						
12	C					below the feeder-totter
190621-MBA-324-B-12						

Notes:

Sampler signature: Mark Applegate Date: 6-24/19

Received by\*: ASL Lab: amp analytical Date: 6/28/19

\*Receiver acknowledges that all samples were received in good order, properly containerized and preserved and that every sample was without damage and/or obvious tampering of custody seals.



# CERTIFICATE OF ANALYSIS



**Chain of Custody:** 615550  
**Client:** SaLUT, Inc.  
**Address:** 1818 New York Avenue, NE  
Suite 231  
Washington, DC 20002  
**Attention:** Mark Applegate

**Job Name:** Takoma (324) - Rinsed Dust  
**Job Location:** 7010 Piney Branch Road, NW, DC  
20012  
**Job Number:** 19-074  
**P.O. Number:** Not Provided

**Date Submitted:** 06/24/2019  
**Date Analyzed:** 06/28/2019  
**Report Date:** 06/28/2019  
**Date Sampled:** 06/21/2019  
**Person Submitting:** Mark Applegate

## Summary of Atomic Absorption Analysis for Lead

AMA Sample Number	Client Sample Number	Analysis Type	Sample Type	Reporting Limit	Final Result	Comments
615550-1	190621-MBA-324-B-1	Flame AA	Soil/Solid	3000 mg/Kg	<3000 mg/Kg	Rinsed Dust Samples
615550-2	190621-MBA-324-B-2	Flame AA	Soil/Solid	5600 mg/Kg	<5600 mg/Kg	
615550-3	190621-MBA-324-B-3	Flame AA	Soil/Solid	4500 mg/Kg	<4500 mg/Kg	
615550-4	190621-MBA-324-B-4	Flame AA	Soil/Solid	17000 mg/Kg	<17000 mg/Kg	
615550-5	190621-MBA-324-B-5	Flame AA	Soil/Solid	25000 mg/Kg	<25000 mg/Kg	
615550-6	190621-MBA-324-B-6	Flame AA	Soil/Solid	96 mg/Kg	120 mg/Kg	
615550-7	190621-MBA-324-B-7	Flame AA	Soil/Solid	130 mg/Kg	240 mg/Kg	
615550-8	190621-MBA-324-B-8	Flame AA	Soil/Solid	65 mg/Kg	110 mg/Kg	
615550-9	190621-MBA-324-B-9	Flame AA	Soil/Solid	89 mg/Kg	170 mg/Kg	
615550-10	190621-MBA-324-B-10	Flame AA	Soil/Solid	52 mg/Kg	180 mg/Kg	
615550-11	190621-MBA-324-B-11	Flame AA	Soil/Solid	52 mg/Kg	170 mg/Kg	
615550-12	190621-MBA-324-B-12	Flame AA	Soil/Solid	49 mg/Kg	190 mg/Kg	

Analysis Method for Flame: Air, Wipes, Paints, and Soil/Solids: EPA 600/R-93/200(M)-7000B; Water: SM-3111B Analysis Method For Furnace: Air, Wipes, Paints, and Soil/Solids : EPA 600/R-93/200(M)-7010; Water: SM-3113B N/A = Not Applicable mg/Kg = parts per million (ppm) on a dry weight basis mg/L = parts per million (ppm) %Pb = percent lead on a dry weight basis ug = micrograms ug/L = parts per billion (ppb)  
Note: All samples were received in good condition unless otherwise noted.  
Note: All results have two significant digits. Any additional digits shown should not be considered when interpreting the result.

**Analyst(s):** Suphin Chinnapad

See QC Summary for analytical results of quality control samples associated with these samples.

Air and Wipe results are not corrected for any blank results. Final results for air and wipe samples are based on client supplied information not verified by this laboratory.

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## CERTIFICATE OF ANALYSIS

**Chain of Custody:** 615550

**Client:** SaLUT, Inc.

**Address:** 1818 New York Avenue, NE  
Suite 231  
Washington, DC 20002

**Attention:** Mark Applegate

**Job Name:** Takoma (324) - Rinsed Dust

**Job Location:** 7010 Piney Branch Road, NW, DC  
20012

**Job Number:** 19-074

**P.O. Number:** Not Provided

**Date Submitted:** 06/24/2019

**Date Analyzed:** 06/28/2019

**Report Date:** 06/28/2019

**Date Sampled:** 06/21/2019

**Person Submitting:** Mark Applegate

### Summary of Atomic Absorption Analysis for Lead

AMA Sample Number	Client Sample Number	Analysis Type	Sample Type	Reporting Limit	Final Result	Comments
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**Technical Director** G. Edward Carney

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these Laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from us. Sample types, locations, and collection protocols are based upon the information provided by the persons submitting them and, unless collected by personnel of these Laboratories, we expressly disclaim any knowledge and liability for the accuracy and completeness of this information. Residual sample material will be discarded in accordance with the appropriate regulatory guidelines, unless otherwise requested by the client. This report must not be used to claim, and does not imply product certification, approval, or endorsement by NY ELAP, AIHA-LAP, or any agency of the Federal Government. All rights reserved. AMA Analytical Services, Inc.



## QC Summary for SDG #60699

### Overview

Analysis Type: Flame AA  
Sample Type: Soil/Solid  
Analysis Date: 06/28/2019

### Samples Included

615550-1 615550-10 615550-11 615550-12 615550-2 615550-3 615550-4 615550-5  
615550-6 615550-7 615550-8 615550-9

### Preparation Blank ✓

Result: 0.078 ppm

### Report Limit Verification Sample ✓

Percent Recovery: 119.3%

### Duplicates ✓

RPD: 13.5%

### Matrix Spike Analysis ✓

Spiked Sample Percent Recovery: 103.1%  
Spike Duplicate Percent Recovery: 101.5%  
RPD: 1.6%

### Matrix Blank ✓

Result: 0.030 ppm

### Laboratory Control Sample #1 ✓

Percent Recovery: 92.4%

### Laboratory Control Sample #2 ✓

Percent Recovery: 92.43%

### Reference Sample

Percent Recovery: N/A

### Calibration Curve ✓

Correlation: 0.999563

### Serial Dilution / Bench Spike

Serial Dilution RPD: N/A  
Bench Spike Percent Recovery: N/A

### Notes



**Mailing/Billing Information:**

1. Client Name: Julius

2. Address 1: \_\_\_\_\_

3. Address 2: \_\_\_\_\_

4. Address 3: \_\_\_\_\_

5. Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

### Submittal Information:

1. Job Name: Takoma (324) 1610  
 2. Job Location: 7010 Piney Branch Road, NW DC 20012  
 3. Job #: 19-074 P.O. #:  
 4. Contact Person: Mark Applegate Cell:  
 5. Collected by: Cell:

Reporting Info (Results provided as soon as technically feasible). If no TAT/Reporting Info is provided, AMA will assign defaults of 5-Day and email/fax to contacts on file.

<b>AFTER HOURS (must be pre-scheduled)</b> <input type="checkbox"/> 4 Hours <input type="checkbox"/> Late Night <input type="checkbox"/> Immediate    Date Due: _____ <input type="checkbox"/> 24 Hours    Time Due: _____ Comments: _____		<b>NORMAL BUSINESS HOURS</b> <input type="checkbox"/> 4 Hours <input type="checkbox"/> 3 Day <input type="checkbox"/> Same Day <input type="checkbox"/> 5 Day + <input type="checkbox"/> Results Required By Noon <input type="checkbox"/> Next Day    Date Due: _____ <input type="checkbox"/> 2 Day		<b>REPORT TO:</b> <input type="checkbox"/> Email: _____ <input type="checkbox"/> Email 2: _____ <input type="checkbox"/> Verbals: _____	
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## Asbestos Analysis

\*PCM Air – Please Indicate Filter Type: \_\_\_\_\_  
☐ NIOSH 7400 \_\_\_\_\_ (QTY)  
☐ Fiberglass \_\_\_\_\_ (QTY)

TEM Air\* – Please Indicate Filter Type: \_\_\_\_\_

☐ AHERA \_\_\_\_\_ (QTY)  
☐ NIOSH 7402 \_\_\_\_\_ (QTY)  
☐ Other (specify \_\_\_\_\_) \_\_\_\_\_ (QTY)

## PLM Bulk

☐ EPA 600 – Visual Estimate \_\_\_\_\_ (QTY) ☐ Pos Stop  
☐ EPA Point Count \_\_\_\_\_ (QTY)  
☐ NY State Friable 198.1 \_\_\_\_\_ (QTY)  
☐ Grav. Reduction ELAP 198.6 \_\_\_\_\_ (QTY)  
☐ Other (specify \_\_\_\_\_), \_\_\_\_\_ (QTY)

## MISC

☐ Asbestos Soil PLM\_\_ (Qual) PLM\_\_ (Quan) PLM/TEM\_\_ (Qual) PLM/TEM\_\_ (Quan)

\*It is recommended that blank samples be submitted with all air and surface samples

## TEM Bulk

☐ ELAP 198.4/Chatfield \_\_\_\_\_ (QTY)  
☐ NY State PLM/TEM \_\_\_\_\_ (QTY)  
☐ Residual Ash \_\_\_\_\_ (QTY)  
☐ Vermiculite \_\_\_\_\_

## TEM Dust\*

☐ Qual. (pres/abs) Vacuum/Dust\_\_\_\_\_ (QTY)  
☐ Quan. (s/area) Vacuum D5755-95 \_\_\_\_\_ (QTY)  
☐ Quan. (s/area) Dust D6480-99 \_\_\_\_\_ (QTY)

## TEM Water

☐ Qual. (pres/abs)\_\_\_\_\_ (QTY)  
☐ ELAP 198.2/EPA 100.2\_\_\_\_\_ (QTY)  
☐ EPA 100.1\_\_\_\_\_ (QTY)

☒ All samples received in good condition unless otherwise noted.  
(TEM Water samples \_\_\_\_\_ °C)

If field data sheets are submitted, there is no need to complete bottom section.

## Metals Analysis

☐ Pb Paint Chip \_\_\_\_\_ (QTY)  
☐ \*Pb Dust Wipe (wipe type \_\_\_\_\_) \_\_\_\_\_ (QTY)  
☐ \*Pb Air \_\_\_\_\_ (QTY)  
☒ Pb Soil/Solid 13 \_\_\_\_\_ (QTY)  
☒ Pb TCLP 13 \_\_\_\_\_ (QTY)  
☐ Drinking Water ☐ Pb \_\_\_\_\_ (QTY) ☐ Cu \_\_\_\_\_ (QTY) ☐ As \_\_\_\_\_ (QTY)  
☐ Waste Water ☐ Pb \_\_\_\_\_ (QTY) ☐ Cu \_\_\_\_\_ (QTY) ☐ As \_\_\_\_\_ (QTY)  
☐ Pb Furnace (Media \_\_\_\_\_) \_\_\_\_\_ (QTY)

## Fungal Analysis

Collection Apparatus for Spore Traps/Air Samples:\_\_\_\_\_

Collection Media \_\_\_\_\_

☐ \*Spore-Trap \_\_\_\_\_ (QTY)      ☐ Surface Vacuum Dust \_\_\_\_\_ (QTY)

☐ \*Surface Swab \_\_\_\_\_ (QTY)

☐ \*Surface Tape \_\_\_\_\_ (QTY)

☐ Other (Specify) \_\_\_\_\_ (QTY)

[illegible]

	Print Name	Signature	Date	Time	Shipping Information
Relinquished by:			24		<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS
Received by:			6/25/19		<input checked="" type="checkbox"/> In-Person <input type="checkbox"/> Drop Box <input type="checkbox"/> Courier

## Non-Air Monitoring & Sampling Datasheet

Location address: Takoma (324) ~~7010~~ Piney Branch Rd, NW DC 20012

Sampler: Mark Applegate Sampling date: 6/21/19

General sampling notes: Bulk loose rubber bits

Sample #	Location/area	Material	Type	Area (ft <sup>2</sup> )	Analysis method	Notes:
<del>1</del> 190621-MBA-324-B-1	A					Middle Area in between seats and slide / hole
<del>2</del> 190621-MBA-324-B-2	A					Top of mat (Loss debris)
<del>3</del> 190621-MBA-324-B-3	A					LOSE DEBRIS - JUNGLE GYM LOWER PULL UP BAR
<del>4</del> 190621-MBA-324-B-4	A					LOSE DEBRIS - BOTTOM OF ROCK CLIMB
<del>5</del> 190621-MBA-324-B-5	A					LOSE DEBRIS - BOTTOM OF YELLOW TWIST STEPS
<del>6</del> 190621-MBA-324-B-6	B					BY 127 CLASSRM - WATER SPIGOT / Substrate
<del>7</del> 190621-MBA-324-B-7	B					64 BLACK BOX

Notes:

Sampler signature: Mark Applegate Date: 6-21-19

Received by\*: DEly Lab: AMP Analytical Date: 6/24/2019

\*Receiver acknowledges that all samples were received in good order, properly containerized and preserved and that every sample was without damage and/or obvious tampering of custody seals.



## Non-Air Monitoring & Sampling Datasheet

Location address: TAKOMA (324) 7010 Piney Branch Rd. NW DC 20012

Sampler: Mark Applegate Sampling date: 6/21/19

General sampling notes: BULK loose rubber bits

Sample #	Location/area	Material	Type	Area (ft <sup>2</sup> )	Analysis method	Notes:
<u>8</u>	<u>B</u>					<u>UNDER SOUTH OF JUNGLE GYM</u>
<u>190621-MBA-324-B-8</u>						
<u>9</u>	<u>C</u>					<u>Bottom of jungle gym slide</u>
<u>190621-MBA-324-B-9</u>						
<u>10</u>	<u>C</u>					<u>middle of the tire swing</u>
<u>190621-MBA-324-B-10</u>						
<u>11</u>	<u>C</u>					<u>Outside section of the bridge</u>
<u>190621-MBA-324-B-11</u>						
<u>12</u>	<u>C</u>					<u>below the feeder-totter</u>
<u>190621-MBA-324-B-12</u>						

Notes:

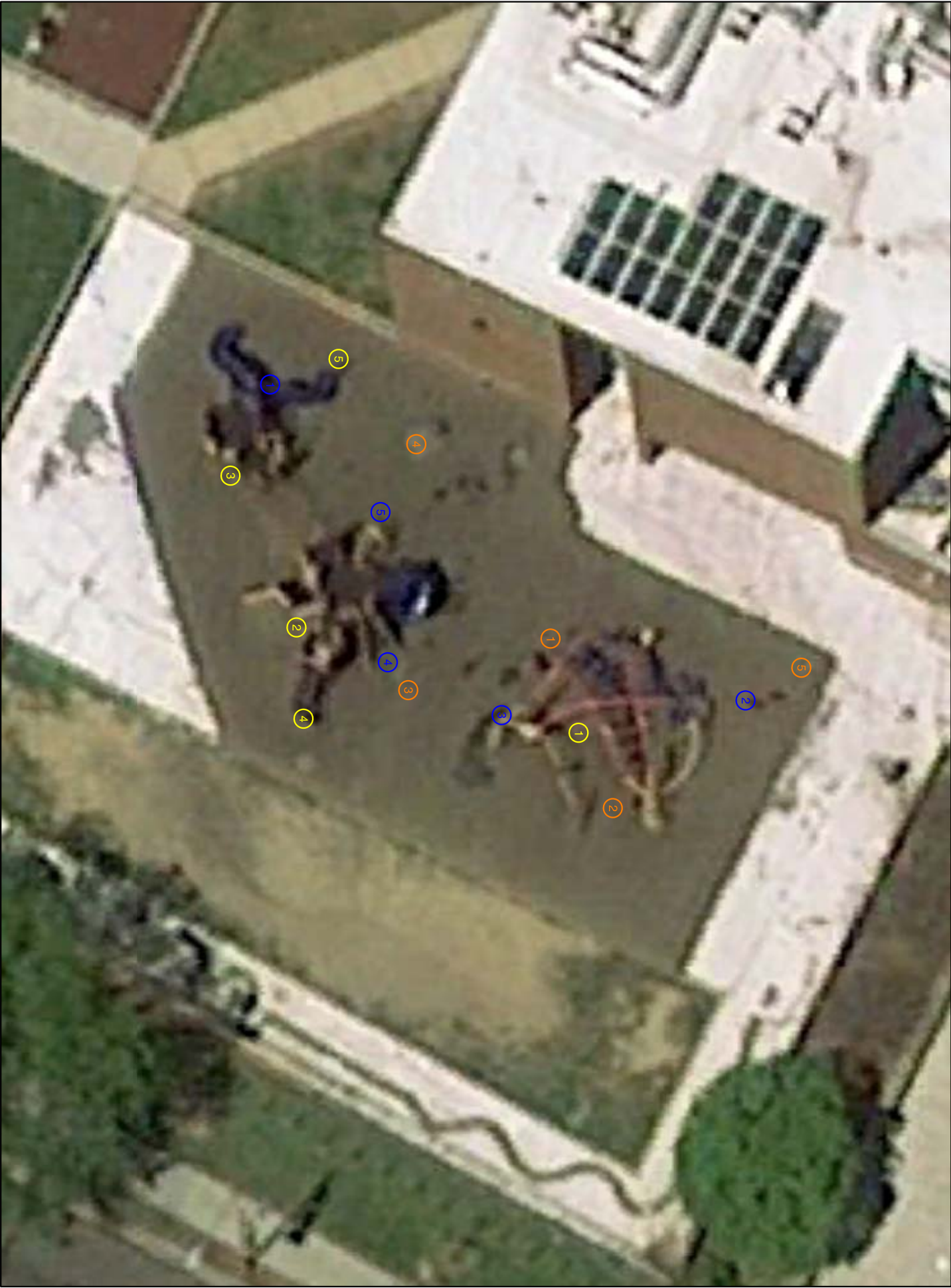
Sampler signature: Mark Applegate Date: 6-24/19

Received by\*: ASL Lab: amp analytical Date: 6/28/19

\*Receiver acknowledges that all samples were received in good order, properly containerized and preserved and that every sample was without damage and/or obvious tampering of custody seals.

## **Attachment B**

### **Playground and Sample Location Maps**



Soil and Land Use Technology, Inc.  
1818 New York Ave, NE, Suite 231  
Washington, DC 20002  
(301) 595-3783

**SCALE:**  
Not to Scale

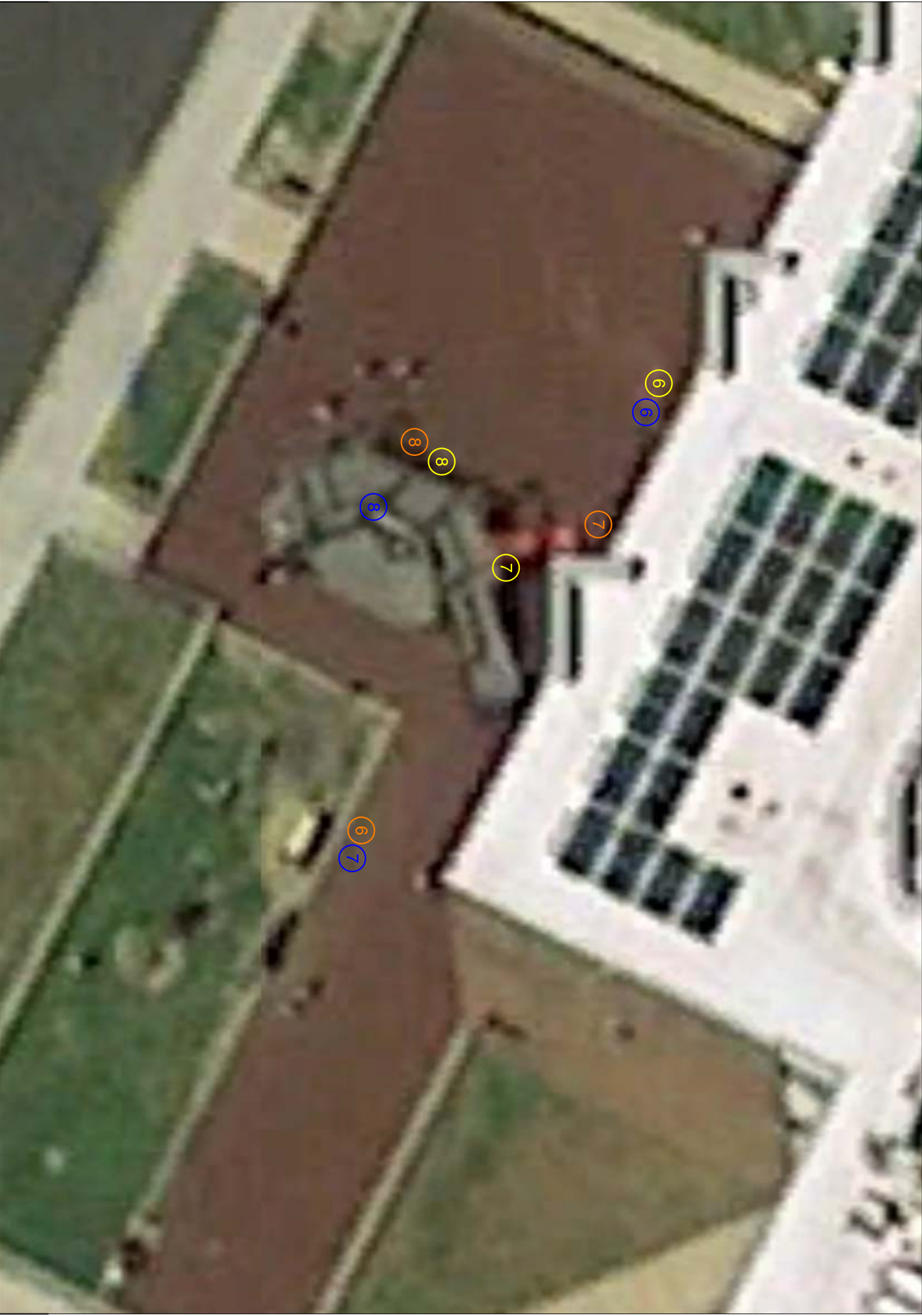
Takoma Education Campus #324  
**Playground**  
7010 Piney Branch Rd. NW  
Washington, DC 20012

**Playground A**  
Approx. 3900 ft<sup>2</sup>

- XRF Reading
- Bulk Sample
- Dust Wipe Sample







Soil and Land Use Technology, Inc.  
1818 New York Ave, NE, Suite 231  
Washington, DC 20002  
(301) 595-3783

**SCALE:**  
Not to Scale

**Takoma Education Campus #324**  
**Playground**  
7010 Piney Branch Rd. NW  
Washington, DC 20012

**Playground B**  
Approx. 3280 ft²

-  - XRF Reading
-  - Bulk Sample
-  - Dust Wipe Sample





Soil and Land Use Technology, Inc.  
1818 New York Ave, NE, Suite 231  
Washington, DC 20002  
(301) 595-3783

**SCALE:**  
Not to Scale

**Takoma Education Campus #324**  
**Playground**  
7010 Piney Branch Rd. NW  
Washington, DC 20012

**Playground C**  
Approx. 2075 ft²

- XRF Reading
- Bulk Sample
- Dust Wipe Sample

