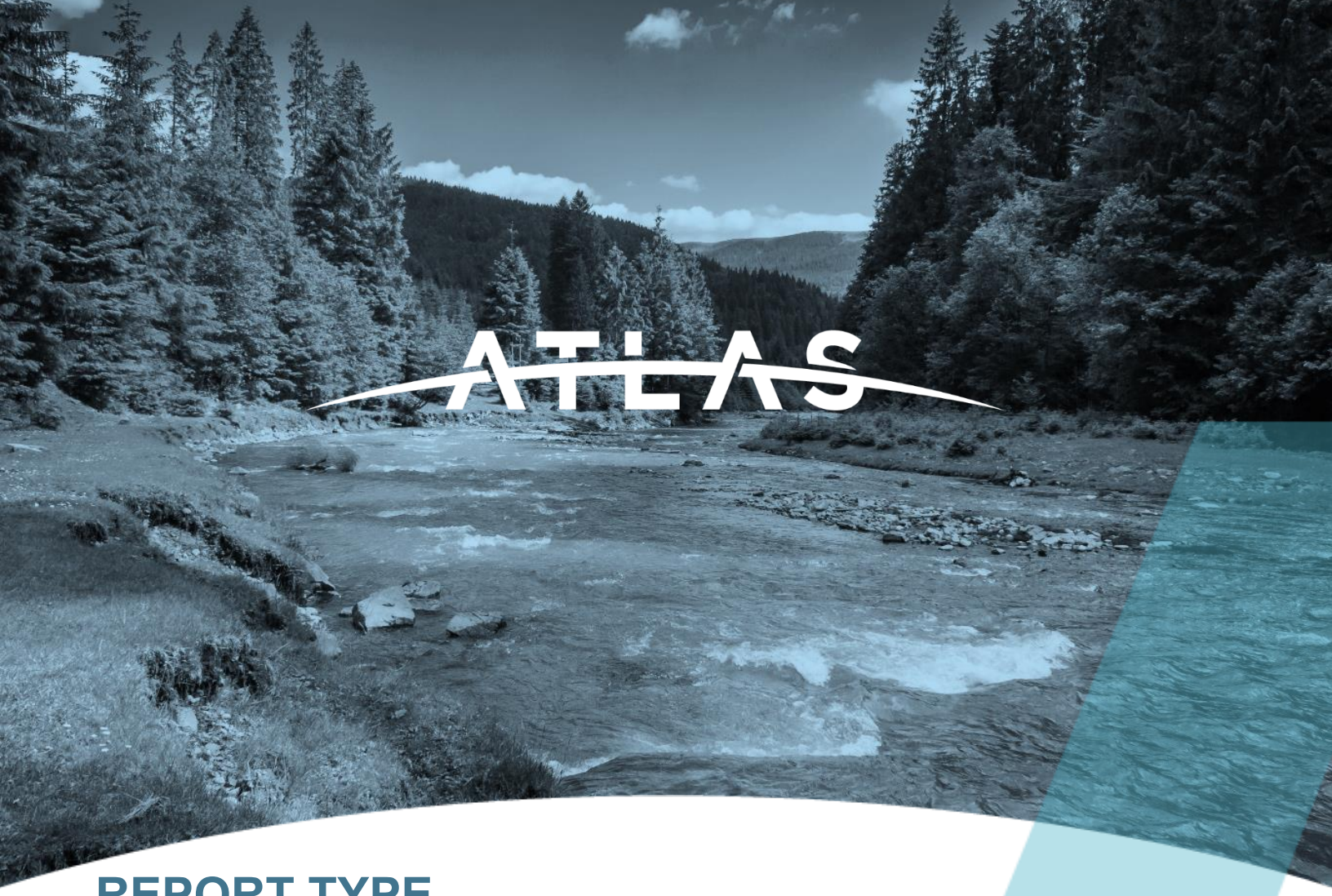

REPORT TYPE

LONG TERM MONITORING AND MAINTENANCE REPORT

THOMAS PRINCE SCHOOL

PRINCETON, MASSACHUSETTS

Atlas Project No. 0321663003

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February 8, 2023

Common Environmental Abbreviations and Acronyms

ACEC	Area of Critical Environmental Concern
ACO	Administrative Consent Order
ACOP	Administrative Consent Order with Penalty
ADC	Alternative Daily Cover
ADD	Average Daily Dose
ADE	Average Daily Exposure
AAI	All Appropriate Inquiry
AOC	Area of Concern
AWQC	Ambient Water Quality Criteria
APH	Air Petroleum Hydrocarbon
API	American Petroleum Institite
APS	Additional Polluting Substance
AS	Air Sparge
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
ATC Eclipse	ATC Eclipse Response Management Center (a Division of ATC Group Services, LLC)
ATG	Automatic Tank Gauge
ATSDR	Agency for Toxic Substances and Disease Registry
AUL	Activity and Use Limitation
bgs	Below Ground Surface
BDATs	Best Domonstrated Available Technologies
BMP	Best Management Practice
BOL	Bill of Lading
BOH	Board of Health
bsg	Below Surface Grade
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
BUD	Beneficial Use Determination
CAM	Compendium of Analytical Methods
CEP	Critical Exposure Pathway
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
cfm	Cubic feet per minute
cm^2	Square centimeter
CMR	Code of Massachusetts Regulations
COC	Contaminant of Concern
ConCom	Conservation Commission
CORRACTS	Corrective Action Report
CRA	Comprehensive Remedial Action
CREC	Controlled Recognized Environmental Conditions
CSA	Comprehensive Site Assessment
CSF	Cancer Slope Factor
CSM	Conceptual Site Model
CTDEEP	Connecticut Department of Energy and Environmental Protection
CTDPH	Connecticut Department of Public Health
dba	Doing business as
DDD	Dichlordiphenyl dichloroethane
DDE	Dichlordiphenyl dichloroethylene
DDT	Dichlordipheyl Trichloroethane
DEC (R/CI)	Direct Exposure Criteria (Residential/Commercial Industrial)
DEQE	Department of Environmental Quality Engineering
DNAPL	Dense Non-Aqueous Phase Liquid
DO	Dissolved Oxygen
DOS	Date of Service
DPS	Downgradient Property Status
DPW	Department of Public Works
DQA	Data Qaulity Assessment
DQO	Data Qaulity Objective
DTB	Depth to Bottom
DTL	Depth to Liquid
DTP	Depth to Product
DTW	Depth to Water
DUE	Data Usability Evaluation
DWSA	Drinking Water Source Area
ECS	Environmental Compliance Services, Inc.
EDB	Ethylene Dibromide
EDR	Environmental Data Resources Inc.
EDR Hist Auto	EDR Historical Automobile
EFR	Enhanced Fluid Recovery
EIP	Electronic Interface Probe
ELCR	Excess Lifetime Cancer Risk
ELUR	Environmental Land Use Restriction
EP	Exposure Point
EPC	Exposure Point Concentration
EPH	Extractable Petroleum Hydrocarbons, MADEP Method 04-1.1
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
ETPH	Extractable Total Petroleum Hydrocarbons
EW	Extraction Well
fbg	Feet Below Grade
Fe	Iron
FEMA	Federal Emergency Management Agency
FFPM	Fluid Flow in Porous Media
FIR	Final Inspection Report
frac tank	Fractionation Tank
ft	Foot
GA	Class GA Groundwater Classification Area
GAC	Granular Activated Carbon
GB	Class GB Groundwater Classification Area
GC/FID	Gas Chromatogram/Flame Ionization Detector
GIS	Geographic Information System
gpm	Gallons per minute
gpd	Gallons per Day
gpy	Gallons per Year
GPR	Ground Penetrating Radar
GW	Groundwater
GWPC	Ground Water Protection Criteria
GW P&T	Groundwater Pump and Treat
GWTS	Groundwater Treatment System
GW-l, GW-2, GW-3	MCP Method 1 Groundwater Categories
HI	Hazard Index
HITME	High Intensity Targeted Multi-Phase Extraction
hp	Horsepower
HREC	Historical Recognized Environmental Conditions
HW GEN	Hazardous Waste Generator
IAS	Indoor Air Sample
I/C DEC	Industrial/Commercial Direct Exposure Criteria
I/C VC	Industrial/Commercial Volatilization Criteria
in. HG	inches of mercury
ID	Inside Diameter
IHE	Imminent Hazard Evaluation
IRA	Immediate Response Action
IRIS	Integrated Risk Information System
ISCO	In Situ Chemical Oxidation

Common Environmental Abbreviations and Acronyms

ITRC	Interstate Technology and Regulatory Council
IW	Injection Well
IWPA	Interim Wellhead Protection Area
kg	Kilogram
LCS	Laboratory Control Spike
LCSD	Laboratory Control Spike Duplicate
LCSM	LNAPL Conceptual Site Model
LEL	Lower Explosive Limit
LEP	Licensed Environmental Professional
LGAC	Liquid-Phase Granular Activated Carbon
LNAPL	Light Non-Aqueous Phase Liquid
LRA	Limited Removal Action
LSI	Limited Subsurface Investigation
LSP	Licensed Site Professional
M1RC	Method 1 Risk Characterization
MBAS	Methyl Blue Active Substance
MCP	Massachusetts Contingency Plan
MDL	Method Detection Limit
MEMA	Massachusetts Emergency Management Agency
M.G.L.c. 21E	Massachusetts General Law, chapter 21E
mg	milligram
mg/g	milligrams per gram
mg/m^3	milligrams per cubic meter
mg/L	milligrams per liter
MMIP	Monitoring and Maintenance Implementation Plan
MMIR	Monitoring and Maintenance Implementation Report
Mn	Manganese
MNA	Monitored Natural Attenuation
Mod	Modification
MS	Matrix Spike
MSDS	Matrix Spike Duplicate
MPE	Multi-Phase Extraction
MSDS	Material Safety Data Sheet
MSR	Material Shipping Record and Log
msl	Mean Sea Level
MtBE	Methyl Tertiary Butyl Ether
MW	Monitoring Well
ND	Non-detect - not detected above instrument detection limit.
NFRAP	No Further Remedial Action Planned
ng/m^3	Nanogram per cubic meter
NAOF	Notice of Audit Findings
NGVD	National Geodetic Vertical Datum
NHESP	National Heritage of Endangered Species Program
NOAA	National Oceanic and Atmosphric Administration
NOAF	Notice of Audit Findings
NOI	Notice of Intent
NON	Notice of Noncompliance
NOR	Notice of Responsibility
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NRS	Numerical Ranking System
OD	Occupational Safety and Health Administration
OHM	Oil and Hazardous Materials
OMM	Operation, Maintenance and/or Monitoring
OOC	Order of Conditions
OOD	Organic Matter Oxidant Demand
ORC	Oxygen Releasing Compound
ORP	Oxidation-Reduction Potential
ORS	MassDEP Office of Research and Standards
OSHA	Occupational Safety and Health Administration
OSWER	EPA Office of Solid Waste and Emergency Response
OWS	Oil Water Separator
PFOA	Perfluorooctanoic acid
PFAS	Per- and Polyfluorinated Alkyl Substances
PFOS	Perfluorooctanesulfonic Acid
PAH	Polynuclear Aromatic Hydrocarbon
PAOC	Potential Area of Concern
PARCSS	Precision, Accuracy, Representativeness, Comparability, Completeness and Sensitivity
PCB	Polychlorinated Biphenyl
PDWW	Private Drinking Water Well
PEL	Permissible Exposure Limit
Phase I	Phase I Initial Site Investigation
Phase I ESA	Phase I Environmental Site Assessment
Phase II CSA	Phase II Comprehensive Site Assessment
Phase II ESA	Phase II Environmental Site Assessment
Phase III RAP	Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives
Phase IV RIP	Phase IV – Implementation of Selected Remedial Action Alternative
PIANO	Parffin, isoparaffin, aromatic, naphthene, and olefin hydrocarbons
PID	Photoionization Detector
PLM	Positive Limiting Barrier (i.e. grooves in dispenser mat)
PMC (GA or GB)	Pollutant Mobility Criteria for groundwater classified as GA or GB groundwaters
POET	Point of Entry Treatment
POTW	Publicaly Owned Treatment Works
PPA	Potentially Productive Aquifer
ppb	Parts-per-Billion
ppm	Parts-per-Million
ppm(v)	Parts per million (by volume)
P-pump	Peristaltic Pump
ppt	Parts per thousand
PRP	Potentially Responsible Party
PSNC	Permanent Solution with No Conditions
PSS	Permanent Solution Statement
PUF	Polyurethane Foam
PVC	Polyvinyl Chloride
QAPP	Quality Assessment Project Plan
QA/QC	Quality Assurance/Quality Control
RA	Release Area
RAA	Remedial Action Alternative
RAF	Release Ammendment Form
RAF's	Relative Absorption Factors
RAM	Release Abatement Measure
RAO	Response Action Outcome
RAP	Remedial Action Plan
RAPS	Response Action Performance Standards
RBC	Risk Based Concentration
RC	Risk Characterization
RCs	Reportable Concentrations
RCGW-l & 2, RCS-l &2	Reportable Concentration Groundwater/Soil Categories - Massachusetts
RCP	Reasonable Confidence Protocols
RCRA	Resource Conservation and Recovery Act
RCSA	Regulations of Connecticut State Agencies
REC	Recognized Environmental Condition
RES DEC	Residential Direct Exposure Criteria
RES SAT	Residual Saturation
RES VC	Residential Volatilzation Criteria

Common Environmental Abbreviations and Acronyms

RfD	Reference Dose
RGP	Remedial General Permit
RIP	Remedy Implementation Plan
RMR	Remedial Monitoring Report
RLF	Release Log Form
RNF	Release Notification Form
ROS	Remedy Operation Status
RL	Reporting Limit
ROS Report	Phase V Inspection and Monitroing Report in Support of ROS
RSR	Remediation Standard Regulations
RTN	Release Tracking Number
RVC	Residential Volatilization Criteria
RW	Recovery Well
Scfm	Standard cubic feet per minute
sf	Square Feet
S-1, S-2, S-3	MCP Method 1 Soil Categories
SHWS	State Hazardous Waste Site
SOP	Standard Operating Procedures
SOW	Scope-of-Work
SPLP	Synthetic Percipitation Leaching Procedure
SQG	Small Quantity Generator
SRM	Substantial Release Migration
SSDS	Sub-Slab Depressurization System
SVE	Soil Vapor Extraction
SVOC	Semi Volatile Organic Compound
SVVP	Soil Vapor Volatilazation Criteria
SWPC	Surface Water Protection Criteria
SWQG	Surface Water Quality Guidance
TAC	Target Indoor Air Concentration
TCLP	Toxicity Characteristic Leaching Procedure
TDA	Temporary Remedial Discharge Permit Authorization
T_n	Transmissivity
TOC	Total Organic Carbon
TOD	Total Oxidant Demand
TOR	Threat of Release
TOVs	Total Organic Vapors
TPH	Total Petroleum Hydrocarbons
UCL	Upper Concentration Limit
ug/g	micrograms per gram
ug/Kg	micrograms per kilogram
ug/L	micrograms per liter
ug/m^3	microgram per cubic meter
UHWM	Uniform Hazaradous Waste Manifest
UHWMTN	Uniform Hazaradous Waste Manifest Tracking Number
UR	Unit Risk
UST	Underground Storage Tank
USTCPA	Underground Storage Tank Petroleum Clean-Up Account
USTPCP	Underground Storage Tank Petroleum Clean-Up Account Program
UTM	Universal Transverse Mercator
Vactor	High Vacuum Extractor
VC	Volatilzation Criteria
VEGE	Vacuum Enhanced Groundwater Extraction
VGAC	Vapor-Phase Granular Activated Carbon
VIP	Vapor Intrusion Pathway
VOC	Volatile Organic Compound
VPH	Volatile Petroleum Hydrocarbons, MADEP Method 04-1.1
WPA	Wetlands Protection Act
WWTP	Waste Water Treatment Plant

REGULATORY AGENCIES

BWSC	Bureau of Waste Site Cleanup
CTDEEP	Connecticut Department of Energy and Environmental Protection
CTDPH	Connecticut Department of Public Health
MassDEP	Massachusetts Department of Environmental Protection
MassDMF	Massachusetts Department of Marine Fisheries
MassDOT	Massachusetts Department of Transportation
MassDOR	Massachusetts Department of Revenue
MassGIS	Massachusetts Geographic Information System
Massport	Massachusetts Port Authority
MEMA	Massachusetts Emergency Management Agency
NHESP	National Heritage & Endangered Species Program
NRC	National Response Center
RIDEM	Rhode Island Department of Environmental Management
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Survey

SUBCONTRACTORS

Alpha	Alpha Analytical
ATC	ATC Group Services, LLC
Atlas	Atlas Technical Consultants LLC or Atlas Technical
CHI	Clean Harbors, Inc.
Contest	Contest Analytical Services
Cyn	Cyn Environmental Services, dba, Clean Harbors Environmental Services
Drilex	Drilex Environmental, West Boylston, MA
ECS	Environmental Compliance Services, Inc.
ESMI	Environmental Soil Management, Inc., Loudon, NH
Eurofins/Spectrum	Eurofins/Spectrum Analytical, Inc. , Agawam, MA
Geolabs	Geolabs, Inc., Braintree, MA
Geosearch	Geosearch, Inc - Westminster, MA
LaMountain	LaMountain Brothers, Inc, Oxford, MA
Liddell	Liddell Brothers, Inc. (traffic management)
New Hampshire Boring	New Hampshire Boring, Inc., Londonderry, NH
Ondrick	Ted Ondrick Company, LLC
STI	Service Tech, Inc.
Tanknology	Tanknology, Inc., Austin, TX
USE	US Ecology

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1.0 INTRODUCTION

On behalf of the Town of Princeton, the purpose of this report is to present the results of annual long term monitoring and maintenance activities that were conducted at the Thomas Prince School in August-September 2022 and January 2023. Included within this report are the results and discussions related to recoating of exterior epoxy coated surfaces and follow-up wipe sampling that was performed in August-September 2022 and indoor air and wipe samples that were collected on January 16, 2023. This report has been provided as public information via the website of the Wachusett Regional School District (WRSD). Refer to the acronym list which follows the Table of Contents for a listing of common acronyms utilized within this report.

1.1 BACKGROUND

The Thomas Prince School is a public elementary school located in the Town of Princeton, Massachusetts. The school building is operated by the WRSD and owned by the Town of Princeton. The school currently serves students in the grades of kindergarten through eight and fulltime/part time educators. The school is occupied for typical school session from late August through June between the hours of 8:30 AM to 3 PM on weekdays. School sponsored “before and after care programming” occurs for an additional 3.5 hours per day. The school is also used for childhood activities during the summer on a varying schedule. A locus map, showing the location of the school is presented as **Figure 1**. A plan showing the building and locations of rooms within the building is presented as **Figure 2**.

In April 2011, during preparation for a window replacement project being performed as part of Green Repair Program administered under the Massachusetts School Building Authority, analysis of samples of window caulking and window glazing material collected from the school indicated the presence of PCB’s in those building materials. Additional sampling, conducted in June 2011, confirmed the presence of PCB’s in window caulking and also indicated the presence of PCB’s in structural joint caulking as well as masonry substrate materials adjacent to the window caulking. PCB’s in building materials is regulated under the Toxic Substances Control Act (TSCA, 40 CFR, Part 761). Use of PCB’s in building materials is an unauthorized use under this act.

Based on conditional approvals by USEPA, PCB mitigation activities were previously completed at the school. These activities included the removal and/or disposal of *PCB Bulk Product Waste* (window and joint caulking), *PCB Remediation Waste* (building materials and soil), PCB fluorescent light ballasts/stained light housings, *PCB Capacitors* and the encapsulation of identified PCB contaminated porous surfaces (concrete, concrete block and brick) with two layers of an epoxy coating. Per USEPA, the presence of encapsulated PCB contaminated porous surfaces requires long term monitoring and maintenance consisting of surface wipe sampling, indoor air sampling, visual inspection of the encapsulated porous surfaces and maintenance of those surfaces, as required. Multiple rounds of indoor air sampling, surface wipe sampling, building materials sampling and associated analyses for PCB’s have been performed at the school. This data is summarized in a report prepared for the school titled “Long Term Monitoring and Maintenance Report, 2012 – Present”, dated September 30, 2017.

2.0 ANNUAL MONITORING AND MAINTENANCE

Data obtained during annual monitoring and maintenance activities that have been performed at the Thomas Prince School, as well as other documents related to the PCB assessment and remediation at the school, have been provided to the USEPA via hard copy and electronic copy formats and to the general public via posting on the WRSD website at https://www.wrsd.net/plans_documents/pcb_information. Included within this report are the following tables which summarize the analytical data obtained from wipe sampling (performed on September 15, 2022) following the epoxy recoating of previously epoxy coated exterior surfaces and the wipe sampling and indoor air sampling that was completed at the school on January 16, 2023.

- **Table 1** presents a summary of the post-remedial, epoxy recoated, exterior *porous surface* wipe sample analytical results obtained in September 2022. The laboratory certificates of analysis associated with the wipe sample results are included in **Attachment I**.
- **Table 2** presents a summary of the post-remedial, epoxy coated, *porous surface* wipe sample analytical results obtained in January 2023. The laboratory certificates of analysis associated with the wipe sample results are included in **Attachment I**.
- **Table 3** presents a summary of all indoor air sampling analytical results which have been obtained at the school as part of pre/post PCB assessment and remedial mitigation activities. The laboratory certificates of analysis associated with the indoor air sampling performed in January 2023 are included in **Attachment II**.
- **Table 4** presents a summary of the field readings, primarily related to time and air flow rates, collected during the air sampling activities in January 2023.
- **Table 5** presents information related to the conversion of the raw laboratory air data (presented in the laboratory report in **Attachment II**) from ng/PUF cartridge to ng/m^3 of air.

All wipe samples collected as part of these activities were done so in conformance with the methods recommended by USEPA[1]. The wipe samples were collected using hexane doused cotton gauze wipes over a 100 cm^2 area. The samples were extracted per EPA Method 3540C and analyzed for PCB's via EPA Method 8082. The results are compared to the EPA guideline for the cleanup of PCBs on surfaces in schools of 1 ug/100 cm^2.

As part of the long term monitoring activities performed at the school, indoor air samples were collected in general conformance with EPA Method TO-10A[2], using individual low flow air sampling pumps, calibrated to approximately 5 liters/minute flow rates, to pull interior air through laboratory supplied polyurethane foam sample media cartridges. The samples were typically collected over a duration of approximately 6 hours and 40 minutes at flow rates of approximately 5 liters per minute (for a total sample volume of air of approximately 2 cubic meters). The air samples were submitted for laboratory analysis via USEPA Method 680 for PCB Homologs by Gas Chromatography with Mass Spectrometry Detection. The results are compared to the current calculated EPA "Exposure Levels for Evaluating PCB's in Indoor School Air" (EPA guidance values) as presented in **Table 3**.

[1] Smith, John H. (1987). Wipe sampling and double wash/rinse cleanup as recommended by the Environmental Protection Agency PCB Spill Cleanup Policy. USEPA. June 23, 1987 (revised and clarified on April 18, 1991) and information presented in 40 CFR 761.123, Definition of Standard wipe test.

[2] USEPA. (1999). Compendium of methods for the determination of toxic organic compounds in ambient air. Second Edition. Compendium Method TO-10A. Determination of pesticides and polychlorinated biphenyls in ambient air using low volume polyurethane foam (PUF) sampling followed by gas chromatographic /multi-detector detection. USEPA Office of Research and Development, Center for Environmental Research Information. Cincinnati, OH 45268. January, 1999.

2.1 SEPTEMBER 15, 2022 – POST RE-APPLICATION OF EPOXY COATING TO PREVIOUSLY EPOXY COATED EXTERIOR POROUS SURFACES SURFACE WIPE SAMPLING

Surface Wipe Samples – September 15, 2022

During August-September 2022, the exterior concrete/masonry substrate associated with the window casements and air vents of the 100-Wing and 200-Wing Classrooms at the Thomas Prince School were re-coated with two (2) coats of SikaGard 62® High-build, protective epoxy coatings. The re-application of epoxy coatings was required as the initial Sika-Gard 62® coatings, previously applied to these areas as part of the PCB remediation at the school, were observed to be fading, thinning and cracking. This observed deterioration of the epoxy coatings had resulted in the detection of PCB's above the permissible regulatory limit of 1 ug/100cm^2 during the surface wipe sampling performed in October 2021.

Following the re-coating, confirmatory wipe samples were collected from the areas where PCB's had been detected during the October 2021 sampling event[3]. The results (**Table 1**), show that PCB's were not detected in any of the exterior post-coating confirmatory wipe samples above the laboratory reporting limit of 0.5 ug/100 cm^2. The laboratory certificates of analysis associated with the wipe sample results are included in **Attachment I**.

2.2 JANUARY 16, 2023 – 9TH ROUND OF POST "FINAL MITIGATION" SURFACE WIPE AND INDOOR AIR SAMPLING

Surface Wipe Samples – January 16, 2023

The 9th round of "post final mitigation" surface wipe samples were collected on January 16, 2023 from the epoxy coated *porous surfaces* from 1) the interior substrate surrounding the windows of classrooms 100, 104, 108, 203, 207 and 209; and, 2) the exterior substrate surrounding the windows of classrooms 201, 203, 205, 207 and 209. The surface wipe samples were collected and evaluated following procedures as presented in the Site specific Monitoring and Maintenance Implementation Plan dated October 2017. The samples were analyzed by the independent analytical laboratory Alpha Analytical, Inc. (Alpha) of Westborough, MA, per the methods indicated above. The laboratory analytical report is presented in **Attachment I** and the results are summarized in **Table 2**.

The results of the analytical testing shows that ten (10) of the eleven (11) wipe samples produced results below the laboratory reporting limit of 0.5 ug/100 cm^2. The one remaining sample (interior located sample at classroom 100) had a concentration of PCB below the guideline value of 1 ug/100 cm^2.

Indoor Air Samples – January 16, 2023

The 9th round of "post final mitigation" indoor air samples were collected on January 16, 2023 from classrooms 104, 110, 201, 205, the Cafeteria and the Library. The indoor air samples were collected and evaluated following procedures as presented in the Site specific MMIP dated October 2017. The samples

[3] PCB's had been detected in October 2021 above guidelines in exterior located samples 100/102 EXT, 104/106 EXT, 108/110 EXT and 211 EXT. All wipe samples were collected in general conformance with the methods recommended by USEPA. The wipe samples were collected using hexane doused cotton gauze wipes over a 100 cm^2 area. The samples were extracted per EPA Method 3540C and analyzed for PCB's via EPA Method 8082. The results are compared to the EPA guideline for the cleanup of PCBs on surfaces in schools of 1 ug/100 cm^2. The sampling methodology was obtained from Smith, John H. (1987); Wipe sampling and double wash/rinse cleanup as recommended by the Environmental Protection Agency PCB Spill Cleanup Policy. USEPA. June 23, 1987 (revised and clarified on April 18, 1991) and information presented in 40 CFR 761.123, Definition of Standard wipe test.

were analyzed by Alpha per the methods indicated above. The laboratory analytical report is presented in **Attachment II** and the results are summarized in **Table 3**. The analytical results are reported in units of "ng/cart" (i.e. ng/PUF cartridge) which is a mass per unit measurement. Therefore, for any detected PCB's, the data presented in the laboratory report would be divided by the corresponding volume of sample air (recorded in cubic meters (m^3)) that was pulled through the individual PUF cartridge for a particular sample, to obtain a mass per volume measurement (ng/m^3). This would be conducted to compare any laboratory reported value to the EPA guideline values. Since no PCB compounds were detected above the laboratory reporting limit of 0.5 ng/m^3 in five (5) of the six (6) samples collected, this calculation was only performed for one (1) sample, that collected from the Library. The result of the PCB's detected in this sample was calculated to be 2.6 ng/m^3. The air sample volume conversions are presented in **Table 4** and the laboratory data conversion calculations are presented in **Table 5**.

The results of the indoor air analytical testing were favorable as no PCB's were detected above 0.5 ng/m^3 in any of the rooms sampled during this event. The value of 0.5 ng/m^3 is significantly below the lowest EPA Guidance value for evaluating PCB's in school indoor air of 100 ng/m^3, applicable for children aged 1-3 years[4]. In accordance with the October 2017 MMIP and/or USEPA requirements, since no indoor air sampling result exceeded 300 ng/m^3 (protective of children from age 6-12 years), no additional action is required at this time and future indoor air monitoring will continue in accordance with the MMIP.

2.3 REQUIRED MAINTENANCE

It is the opinion of Atlas that the findings of the confirmatory sampling performed on September 15, 2022 and January 16, 2023 indicate that maintenance of the epoxy encapsulated porous surfaces is not required at this time. This opinion is based on the laboratory analytical results which demonstrate PCB's greater than 1 $ug/100cm^2$ were not detected in wipe samples collected from the substrate surfaces and that the visual appearance of the surfaces is good with no significant chipping, cracking or other signs of surficial deterioration of the epoxy coatings. In August-September 2022, the epoxy encapsulated porous surfaces of the exterior 100-Wing and 200-Wing classrooms (including the exterior surfaces surrounding the air vents) were recoated with two (2) coats of SikaGard 62® High-build, protective epoxy coatings.

In accordance with the October 2017 MMIP, a visual inspection of the epoxy encapsulated porous surfaces was performed during the January 2023 sampling event. The inspection was performed to determine if the integrity of the epoxy encapsulate had become unacceptably deteriorated or compromised, thus potentially reducing the continued effectiveness of the coating in limiting potential formation of dust, limiting direct contact to and limiting potential volatilization of the low level of PCB's contained in the underlying substrate material. Observations of conditions of the epoxy coatings are presented on the inspection forms presented in **Attachment III**. The visual aspects considered during the inspections included, but were not limited to, the following:

- Physical condition of the coatings and new caulking (i.e. cracking, flaking, chipping, peeling, thinning, etc.);
- The presence of decorations or other items that are adhered to the coated surfaces; and,
- Other signs of disturbance of the coatings or new caulking.

No significant thinning, cracking, flaking, and/or chipping of the epoxy coatings was observed in association with the exterior 100-Wing or 200-Wing classroom windows. Refer to **Attachment III**, the Annual Visual Inspection Forms, for specific observations and any maintenance recommendations.

[4] This information was obtained on 04/30/2020 from the EPA website https://www.epa.gov/pcbs/exposure-levels-evaluating-polychlorinated-biphenyls-pcbs-indoor-school-air. The values presented therein are the EPA Calculated "Exposure Levels for Evaluating PCB's in School Indoor Air", Health Protective GUIDANCE Values.

3.0 COMMUNICATION

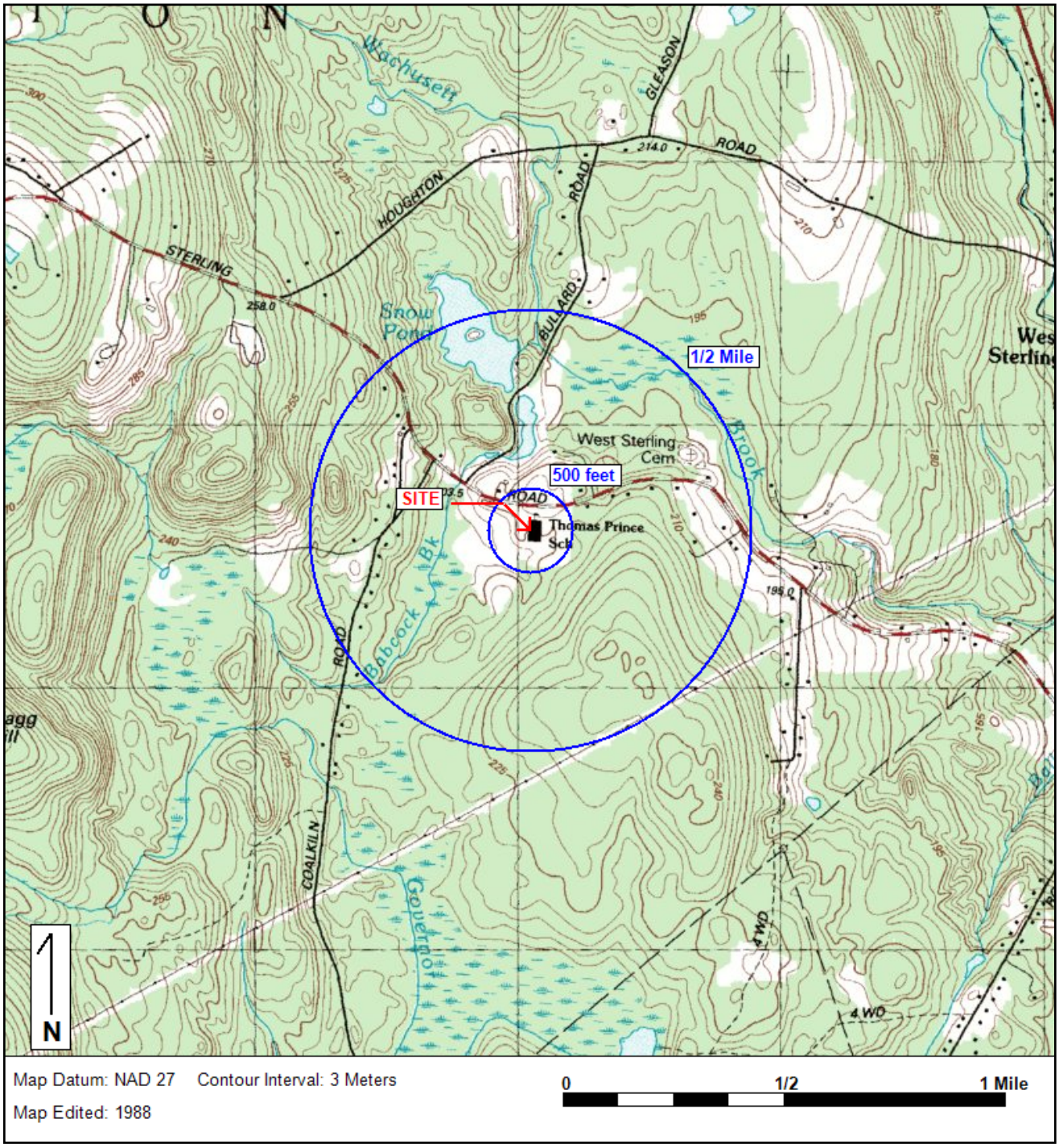
This report has been posted to the WRSD website under the heading *PCB Information* at https://www.wrsd.net/plans_documents/pcb_information. Links to this information can also be found on the Home Site of the WRSD website under the tab “Plans and Documents” as well as on the webpage specific to the Thomas Prince School under “School Info”.

FIGURES

ATLAS Technical
10 State Street
Woburn, MA 01801
Phone: 781-246-8897
www.oneatlas.com

Thomas Prince School
170 Sterling Street
Princeton, MA

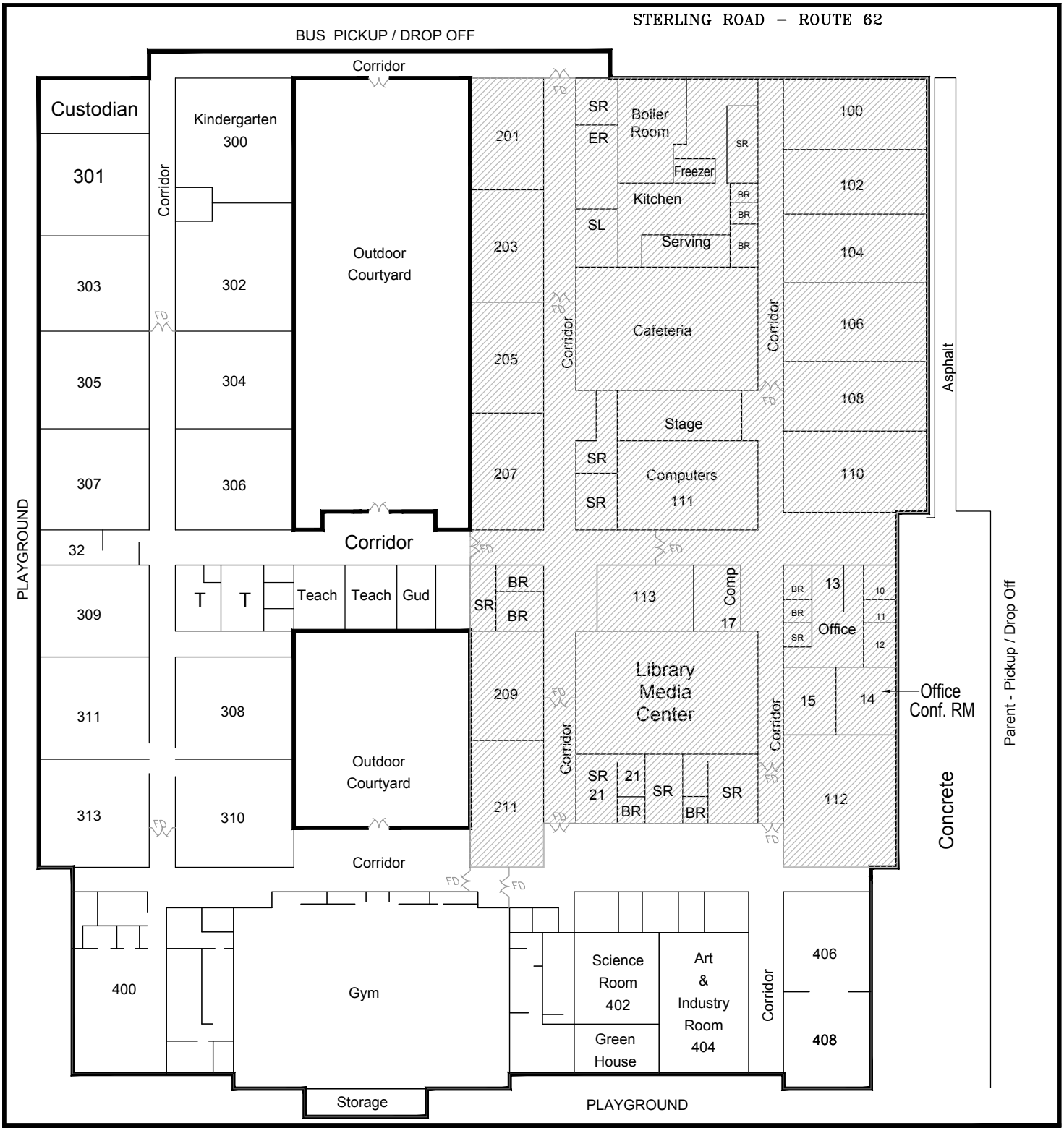
Figure 1: SITE LOCUS



Base Map: U.S. Geological Survey; Quadrangle Location: Sterling, MA

Lat/Lon: 42.4425 NORTH, 71.8438 WEST - UTM Coordinates: 19 266094.53 EAST / 4702820.5 NORTH

Generated By: Rick Starodoj



Legend

BR - Bathroom
SR - Storage Room
ER - Electrical Room
SL - Staff Lounge
FD - Fire Door

Building Constructed 1962
Un-hatched sections were constructed in 1991

ATLAS
10 State Street * Woburn, MA 01801
Phone: 781-246-8897 Fax: 781-246-8950

PROJECT:
Thomas Prince School
170 Sterling Road – Route 62
Princeton, Masschusetts

TITLE:
Room ID Plan

COMPUTER CADFILE : 216630e.dwg

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
RAS	CK	CK	CK
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
NTS	11/12/21	216630	2

TABLES

Table 1
2022 - POST RE-COATING EXTERIOR WIPE SAMPLE RESULTS

SAMPLE ID	Date	Aroclor	Concentration ug/100cm^2	Notes	SAMPLE LOCATION and COMMENTS
100/102 EXT	9/15/2022	1254	<0.5	1	Center between the windows 7' from grade
104/106 EXT	9/15/2022	1254	<0.5	1	Center between the windows 6' from grade
108/110 EXT	9/15/2022	1254	<0.5	1	Center between the windows 3' from grade
211 EXT	9/15/2022	1254	<0.5	1	Center, 4' above grade
Blank	9/15/2022		<0.5		

Notes:
All samples collected as hexane wipes over a 100 square centimeter (cm^2) area.
Regulatory exposure limit for unrestricted use in school is 1 ug/100 cm^2
<0.5 = Not Detected above the laboratory reporting limit (RL).
Bold indicates value greater than 1 ug/100 cm^2

1. Exterior surface areas re-coated with two (2) coats of SikaGard 62® High-build, protective, epoxy coating

SAMPLE ID	Date	Aroclor	Concentration ug/100cm^2	Notes	SAMPLE LOCATION and COMMENTS
100 INT	1/16/2023	1254	0.542	1	4th blk above sill, S side, parallel and perpendicular facing block
104 INT	1/16/2023		<0.5	1	5th Block above sill, N side, parallel and perpendicular facing block
108 INT	1/16/2023		<0.5	1	3rd Block above sill, N side, parallel and perpendicular facing block
203 INT	1/16/2023		<0.5	2	3rd Block up from the Sill, in between the windows, parallel facing block
207 INT	1/16/2023		<0.5	2	4th Block up from the Sill, in between the windows, parallel facing block
209 INT	1/16/2023		<0.5	2	5th Block up from the Sill, in between the windows, parallel facing block
201 EXT	1/16/2023		<0.5	2	Center, S side, 5' from grade
203 EXT	1/16/2023		<0.5	2	N side, inside perpendicular, 5' from grade
205 EXT	1/16/2023		<0.5	2	Center, S, N side, 5' from grade
207 EXT	1/16/2023		<0.5	2	N sill, center
209 EXT	1/16/2023		<0.5	2	Center, N side, 4' from grade
Blank	1/16/2023		<0.5		

Notes:
All samples collected as hexane wipes over a 100 square centimeter (cm^2) area.
All 100 Wing Room Int samples collected from parrallel and perpendicular face of block.
All 200 Wing Room Int samples collected from face of block parrallel to interior of room.
Regulatory exposure limit for unrestricted use in school is 1 ug/100 cm^2
<0.5 = Not Detected above the laboratory reporting limit (RL).
Bold indicates value greater than 1 ug/100 cm^2
1). Epoxy coating covered by veneer of latex paint.
2). Epoxy coating not covered by veneer of latex paint.

Thomas Prince School
170 Sterling Road
Princeton, Massachusetts

Table 3
INDOOR AIR SAMPLING RESULTS
USEPA Method TO-10A

Indoor Air
USEPA Method TO-10A/680/8082
Polychlorinated Biphenyls

Sample Location	Sampling Date	Method		Notes	Sample Designation	Total Aroclor	Total Homolog's	Total Aroclor	Homolog's (EPA Method 680)									
		Aroclor (8082)	Homolog's (680)						Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl
Classroom 100	8/20/2011	x	x		RM 100	288		288										
	3/22/2012		x				21.83		<2.47	17.5	4.33	<4.94	<4.94	<4.94	<7.40	<7.40	<12.3	<12.3
	12/28/2012		x				ND		<2.17	<2.17	<2.17	<4.33	<4.33	<4.33	<6.49	<6.49	<10.8	<10.8
	12/23/2013		x				ND		<2.45	<2.45	<2.45	<4.89	<4.89	<4.89	<7.34	<7.34	<12.2	<12.2
	4/19/2017		x				4.98		<4.61	<4.61	<4.61	<4.61	4.98	<4.61	<4.61	<4.61	<4.61	<4.61
	11/6/2018		x				50.4		<5	12.6	9.7	14.9	13.2	<5	<5	<5	<5	<5
	10/11/2021		x				26.3		<5	5.0	5.2	8.2	7.9	<5	<5	<5	<5	<5
Classroom 102	8/20/2011	x			RM 102	102.7		102.7										
	12/28/2012		x				ND		<2.16	<2.16	<2.16	<4.31	<4.31	<4.31	<6.47	<6.47	<10.8	<10.8
	11/11/2014		x				ND		<2.50	<2.50	<2.50	<5.01	<5.01	<5.01	<7.51	<7.51	<12.5	<12.5
	4/22/2020		x				6.1		<10	<10	6.1	<10	<10	<10	<10	<10	<10	<10
Classroom 104	8/20/2011	x			RM 104	254		254										
	12/28/2012		x				ND		<2.16	<2.16	<2.16	<4.31	<4.31	<4.31	<6.47	<6.47	<10.8	<10.8
	11/11/2014		x				ND		<2.65	<2.65	<2.65	<5.30	<5.30	<5.30	<7.95	<7.95	<13.3	<13.3
	4/19/2017		x				ND		<4.56	<4.56	<4.56	<4.56	<4.56	<4.56	<4.56	<4.56	<4.56	<4.56
	4/22/2020		x				20.8		<10	14	6.8	<10	<10	<10	<10	<10	<10	<10
	1/16/2023		x				ND		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Classroom 106	8/20/2011	x			RM 106	534		534										
	9/22/2011		x				72.52		< 2.46	5.52	24.6	25.6	16.8	< 4.93	< 7.39	< 7.39	< 12.3	< 12.3
	3/22/2012		x				55.4		<2.47	26.7	28.7	<4.94	<4.94	<4.94	<7.41	<7.41	<12.4	<12.4
	12/28/2012		x				ND		<2.14	<2.14	<2.14	<4.27	<4.27	<4.27	<6.41	<6.41	<10.7	<10.7
	12/23/2013		x				ND		<2.40	<2.40	<2.40	<4.80	<4.80	<4.80	<7.20	<7.20	<12.0	<12.0
	2/16/2016		x				ND		<2.22	<2.22	<2.22	<4.80	<4.44	<4.44	<6.66	<6.66	<11.1	<11.1
	11/6/2018		x				35.3		<5	10.3	8.0	9.0	8.0	<5	<5	<5	<5	<5
	10/11/2021		x				12.2		<5	<5	6.5	5.7	<5	<5	<5	<5	<5	<5
Classroom 108	8/20/2011	x			RM 108	360		360										
	8/20/2011	x				171.6		171.6										
	11/8/2011		x				25.6		<2.5	13.7	11.9	<5	<5	<5	<7.5	<7.5	<12.5	<12.5
	12/28/2012		x				ND		<2.37	<2.37	<2.37	<4.74	<4.74	<4.74	<7.11	<7.11	<11.8	<11.8
	2/16/2016		x				ND		<2.22	<2.22	<2.22	<4.44	<4.44	<4.44	<6.66	<6.66	<11.1	<11.1
	11/6/2018		x				68.3		5.4	24.4	14.2	13.4	10.9	<5	<5	<5	<5	<5
	10/11/2021		x				36.7		<5	<5	6.5	7.3	11.0	11.9	<5	<5	<5	<5
Classroom 110	8/20/2011	x			RM 110	191.9		191.9										
	12/28/2012		x				ND		<2.43	<2.43	<2.43	<4.85	<4.85	<4.85	<7.28	<7.28	<12.1	<12.1
	12/23/2013		x				ND		<2.43	<2.43	<2.43	<4.87	<4.87	<4.87	<7.30	<7.30	<12.2	<12.2
	4/19/2017		x				ND		<4.53	<4.53	<4.53	<4.53	<4.53	<4.53	<4.53	<4.53	<4.53	<4.53
	4/22/2020		x				19.7		<10	7.6	7.5	4.6	<10	<10	<10	<10	<10	<10
	1/16/2023		x				ND		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	1/16/2023		x	1			ND		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Table 3
INDOOR AIR SAMPLING RESULTS
USEPA Method TO-10A

Sample Location	Sampling Date	Method		Notes	Sample Designation	Total Aroclor	Total Homolog's	Total Aroclor	Homolog's (EPA Method 680)									
		Aroclor (8082)	Homolog's (680)						Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl
Classroom 201	**8/1/2011**	x			**RM 201**	**322**		**322**										
	3/22/2012		x				**171.47**		<2.46	**7.07**	**19.8**	**65.6**	**79**	<4.92	<7.38	<7.38	<12.3	<12.3
	12/28/2012		x				**ND**		<2.36	<2.36	<2.36	<4.72	<4.72	<4.72	<7.08	<7.08	<11.8	<11.8
	12/23/2013		x				**ND**		<2.42	<2.42	<2.42	<4.83	<4.83	<4.83	<7.25	<7.25	<12.1	<12.1
	2/16/2016		x				**ND**		<2.36	<2.36	<2.36	<4.72	<4.72	<4.72	<7.08	<7.08	<11.8	<11.8
	4/19/2017		x				**ND**		<4.60	<4.60	<4.60	<4.60	<4.60	<4.60	<4.60	<4.60	<4.60	<4.60
	4/22/2020		x				**ND**		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	1/16/2023		x				**ND**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Classroom 203	**8/1/2011**	x			**RM 203**	**318.9**		**318.9**										
	3/22/2012		x				**131.9**		<2.50	**26.1**	**20.7**	**48.5**	**36.6**	<4.99	<7.49	<7.49	<12.5	<12.5
	12/28/2012		x				**ND**		<2.32	<2.32	<2.32	<4.63	<4.63	<4.63	<6.94	<6.94	<11.6	<11.6
	11/11/2014		x				**ND**		<2.48	<2.48	<2.48	<4.96	<4.96	<4.96	<7.43	<7.43	<12.4	<12.4
	11/6/2018		x				**36.7**		<5	<5	**5.7**	**14.4**	**16.6**	<5	<5	<5	<5	<5
	10/11/2021		x				**33.0**		<5	**5.2**	**5.5**	**9.0**	**13.3**	<5	<5	<5	<5	<5
Classroom 205	**8/1/2011**		x		**RM 205**	**661.2**		**661.2**										
	3/22/2012		x				**220.59**		<2.44	**5.59**	<2.44	**102**	**113**	<4.88	<7.31	<7.31	<12.2	<12.2
	12/28/2012		x				**ND**		<2.35	<2.35	<2.35	<4.70	<4.70	<4.70	<7.04	<7.04	<11.7	<11.7
	12/23/2013		x				**ND**		<2.47	<2.47	<2.47	<4.94	<4.94	<4.94	<7.40	<7.40	<12.3	<12.3
	2/16/2016		x				**ND**		<2.35	<2.35	<2.35	<4.70	<4.70	<4.70	<7.04	<7.04	<11.7	<11.7
	4/19/2017		x				**ND**		<2.35	<2.35	<2.35	<4.70	<4.70	<4.70	<7.04	<7.04	<11.7	<11.7
	4/19/2017		x	1			**19.18**		<4.62	<4.62	<4.62	**8.23**	**10.95**	<4.62	<4.62	<4.62	<4.62	<4.62
	4/22/2020		x				**ND**		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	1/16/2023		x				**ND**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Classroom 207	**8/1/2011**	x			**RM 207**	**591**		**591**										
	3/22/2012		x				**134.11**		<2.49	**6.71**	**15.4**	**71.3**	**40.7**	<4.98	<7.47	<7.47	<12.4	<12.4
	12/28/2012		x				**ND**		<2.32	<2.32	<2.32	<4.63	<4.63	<4.63	<6.94	<6.94	<11.6	<11.6
	11/11/2014		x				**ND**		<2.47	<2.47	<2.47	<4.94	<4.94	<4.94	<7.41	<7.41	<12.3	<12.3
	11/11/2014		x	1			**ND**		<2.54	<2.54	<2.54	<5.07	<5.07	<5.07	<7.61	<7.61	<12.7	<12.7
	11/6/2018		x				**45.1**		<5	**5.5**	**6.0**	**15.6**	**18.0**	<5	<5	<5	<5	<5
	10/11/2021		x				**39.7**		<5	<5	**5.2**	**12.8**	**16.5**	**5.2**	<5	<5	<5	<5
	10/11/2021		x	1			**47.2**		<5	**6.1**	**6.2**	**14.7**	**20.2**	<5	<5	<5	<5	<5

Table 3
INDOOR AIR SAMPLING RESULTS
USEPA Method TO-10A

Sample Location	Sampling Date	Method		Notes	Sample Designation	Total Aroclor	Total Homolog's	Total Aroclor	Homolog's (EPA Method 680)									
		Aroclor (8082)	Homolog's (680)						Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl
Classroom 209	**8/1/2011**	x			**RM 209**	**1021**		**1021**										
	9/22/2011		x				**900.87**		**5.87**	**12**	**77.1**	**250**	**487**	**68.9**	< 7.45	< 7.45	< 12.4	< 12.4
	11/8/2011		x				**179.01**		**3.3**	**6.55**	**20.8**	**48.2**	**94.6**	**5.56**	<7.5	<7.5	<12.5	<12.5
	3/22/2012		x				**311.8**		<2.44	**15.6**	**23.2**	**88.6**	**168**	**16.4**	<7.31	<7.31	<12.2	<12.2
	3/22/2012		x	1			**248.73**		<2.45	**11.0**	**7.23**	**84.5**	**146**	<4.9	<7.35	<7.35	<12.2	<12.2
	12/28/2012		x				**ND**		<2.30	<2.30	<2.30	<4.61	<4.61	<4.61	<6.91	<6.91	<11.5	<11.5
	12/28/2012		x	1			**ND**		<2.30	<2.30	<2.30	<4.61	<4.61	<4.61	<6.91	<6.91	<11.5	<11.5
	12/23/2013		x				**ND**		<2.40	<2.40	<2.40	<4.81	<4.81	<4.81	<7.21	<7.21	<12.0	<12.0
	12/23/2013		x	1			**ND**		<2.41	<2.41	<2.41	<4.81	<4.81	<4.81	<7.22	<7.22	<12.0	<12.0
	2/16/2016		x				**ND**		<2.37	<2.37	<2.37	<4.74	<4.74	<4.74	<7.10	<7.10	<11.8	<11.8
	2/16/2016		x	1			**ND**		<2.44	<2.44	<2.44	<4.89	<4.89	<4.89	<7.33	<7.33	<12.2	<12.2
	11/6/2018		x				**55.8**		<5	**7.7**	**11.2**	**18.8**	**18.2**	<5	<5	<5	<5	<5
	11/6/2018		x	1			**43.2**		<4.8	**7.2**	**8.8**	**12.1**	**15.1**	<4.8	<4.8	<4.8	<4.8	<4.8
	10/11/2021		x				**40.0**		<4.8	**5.4**	**5.7**	**9.8**	**19.1**	<4.8	<4.8	<4.8	<4.8	<4.8
Classroom 211	**8/1/2011**	x			**RM 211**	**396.3**		**396.3**										
	3/22/2012		x				**78.35**		<2.43	**21.3**	**8.25**	**25.0**	**23.8**	<4.86	<7.29	<7.29	<12.2	<12.2
	12/28/2012		x				**ND**		<2.28	<2.28	<2.28	<4.57	<4.57	<4.57	<6.85	<6.85	<11.4	<11.4
	11/11/2014		x				**ND**		<2.46	<2.46	<2.46	<4.92	<4.92	<4.92	<7.38	<7.38	<12.3	<12.3
	4/19/2017		x				**12.38**		<4.65	<4.65	<4.65	<4.65	**12.38**	<4.65	<4.65	<4.65	<4.65	<4.65
	4/22/2020		x				**ND**		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cafeteria	**8/20/2011**	x			**Cafeteria**	**169.1**		**169.1**										
	8/20/2011	x				**197.3**		**197.3**										
	8/20/2011	x		1		**197.7**		**197.7**										
	9/22/2011		x				**6.28**		< 2.51	< 2.51	**6.28**	< 5.01	< 5.01	< 5.01	< 7.52	< 7.52	< 12.5	< 12.5
	9/22/2011		x	1			**11.8**		< 2.4	< 2.4	**5.98**	**5.82**	< 4.81	< 4.81	< 7.21	< 7.21	< 12	< 12
	3/22/2012		x				**ND**		<2.48	<2.48	<2.48	<4.95	<4.95	<4.95	<7.43	<7.43	<12.4	<12.4
	12/23/2013		x				**ND**		<2.51	<2.51	<2.51	<5.03	<5.03	<5.03	<7.54	<7.54	<12.6	<12.6
	11/11/2014		x				**ND**		<2.47	<2.47	<2.47	<4.94	<4.94	<4.94	<7.40	<7.40	<12.3	<12.3
	2/16/2016		x				**ND**		<2.43	<2.43	<2.43	<4.87	<4.87	<4.87	<7.30	<7.30	<12.22	<12.22
	4/19/2017		x				**ND**		<4.55	<4.55	<4.55	<4.55	<4.55	<4.55	<4.55	<4.55	<4.55	<4.55
	1/16/2023		x				**ND**		<5	<5	<4.55	<4.55	<4.55	<4.55	<4.55	<4.55	<4.55	<4.55
Kitchen	**8/20/2011**	x			**KITCHEN**	**146.9**		**146.9**										
	9/22/2011		x				**12.07**		**3.27**	< 2.47	**2.58**	**6.22**	< 4.95	< 4.95	< 7.42	< 7.42	< 12.3	< 12.3
	3/22/2012		x				**5.39**		<2.41	**5.39**	<2.41	<4.82	<4.82	<4.82	<7.23	<7.23	<12.0	<12.0

Thomas Prince School
170 Sterling Road
Princeton, Massachusetts

Table 3
INDOOR AIR SAMPLING RESULTS
USEPA Method TO-10A

Indoor Air
USEPA Method TO-10A/680/8082
Polychlorinated Biphenyls

Sample Location	Sampling Date	Method		Notes	Sample Designation	Total Aroclor	Total Homolog's	Total Aroclor	Homolog's (EPA Method 680)									
		Aroclor (8082)	Homolog's (680)						Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl
Library	8/20/2011	x			LIBRARY	144.2		144.2										
	8/20/2011	x				158.5		158.5										
	9/22/2011		x				18.64		< 2.44	3.04	15.6	< 4.88	< 4.88	< 4.88	< 7.32	< 7.32	< 12.2	< 12.2
	3/22/2012		x				3.86		<2.48	<2.48	3.86	<4.96	<4.96	<4.96	<7.44	<7.44	<12.4	<12.4
	12/23/2013		x				ND		<2.44	<2.44	<2.44	<4.88	<4.88	<4.88	<7.31	<7.31	<12.2	<12.2
	1/16/2023		x				5.56		<5	<5	<5	5.56	<5	<5	<5	<5	<5	<5
Computer Lab 111	8/20/2011	x			RM 111	155.7		155.7										
	9/22/2011		x				23.29		8.69	4.17	3.91	6.52	< 4.97	< 4.97	< 7.45	< 7.45	< 12.4	< 12.4
Home Economics 112	8/20/2011	x	x		RM 112	24.8	ND	24.8	< 12.2	< 12.2	< 12.2	< 24.4	< 24.4	< 24.4	< 36.7	< 36.7	< 61.1	< 61.1
	8/20/2011	x		1		ND												
Off Library 113	8/20/2011	x			RM 113	140.3		140.3										
	9/22/2011		x				14.74		< 2.46	2.92	6.72	5.1	< 4.93	< 4.93	< 7.39	< 7.39	< 12.3	< 12.3
Office Common Area 13	8/20/2011	x	x		RM 13	148.6	13.3	148.6	< 12.3	13.3	< 12.3	< 24.6	< 24.6	< 24.6	< 37	< 37	< 61.6	< 61.6
	9/22/2011		x				4.98		< 2.45	< 2.45	4.98	< 4.91	< 4.91	< 4.91	< 7.36	< 7.36	< 12.3	< 12.3
Stage Area	8/20/2011	x			STAGE	144.3		144.3										
Staff Lounge -- Off Kitchen	8/20/2011	x			T LOUNGE	109.5		109.5										
Electrical Room	8/20/2011	x			ELEC ROOM	93.5		93.5										
100 Corridor North	8/20/2011	x			100 COR A	289		289										
	9/22/2011		x		100 COR N		64.33		4.53	17.9	18	10.9	13	< 4.93	< 7.4	< 7.4	< 12.3	< 12.3
100 Corridor South	8/20/2011	x			100 COR B	155.5		155.5										
	9/22/2011		x		100 COR S		29.31		< 2.48	11.8	10.1	7.41	< 4.96	< 4.96	< 7.44	< 7.44	< 12.4	< 12.4
Central Corridor West	8/20/2011	x			MID COR A	ND												
	9/22/2011		x		CENTRAL COR MID		41.8		6.24	3.71	7.22	5.13	19.5	< 4.93	< 7.4	< 7.4	< 12.3	< 12.3
Central Corridor East	8/20/2011	x			MID COR B	170.5		170.5										
	9/22/2011		x		CENTRAL COR E		10.6		3.95	< 2.52	6.65	< 5.03	< 5.03	< 5.03	< 7.55	< 7.55	< 12.6	< 12.6
200 Corridor North	8/20/2011	x			200 COR A	123		123										
	9/22/2011		x		200 COR N		16.34		4.25	2.65	3.01	6.43	< 4.9	< 4.9	< 7.36	< 7.36	< 12.3	< 12.3
200 Corridor South	8/20/2011	x			200 COR B	199		199										
	9/22/2011		x		200 COR S		34.1		5.59	3.85	6.36	7.8	10.5	< 4.9	< 7.34	< 7.34	< 12.2	< 12.2
Storage Room Opposite 211	8/20/2011	x			RM 21	274.4		274.4										
South Corridor West	8/20/2011	x			SOUTH COR A	38.9		38.9										
South Corridor East	8/20/2011	x			SOUTH COR B	35.2		35.2										
	8/20/2011	x	x		RM 300	ND	ND		< 12.5	< 12.5	< 12.5	< 25.1	< 25.1	< 25.1	< 37.6	< 37.6	< 62.6	< 62.6

Thomas Prince School
170 Sterling Road
Princeton, Massachusetts

Table 3
INDOOR AIR SAMPLING RESULTS
USEPA Method TO-10A

Indoor Air
USEPA Method TO-10A/680/8082
Polychlorinated Biphenyls

Sample Location	Sampling Date	Method		Notes	Sample Designation	Total Aroclor	Total Homolog's	Total Aroclor	Homolog's (EPA Method 680)									
		Aroclor (8082)	Homolog's (680)						Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl
Kindergarten	**8/20/2011**	x	x		**RM 302**	**20.1**	**ND**	**20.1**	< 12.4	< 12.4	< 12.4	< 24.8	< 24.8	< 24.8	< 37.1	< 37.1	< 61.9	< 61.9
		x		1		**33.9**		**33.9**										
300 Corridor North	**8/20/2011**	x			**300 COR A**	**ND**												
300 Corridor South	**8/20/2011**	x			**300 COR B**	**ND**												
North Corridor West	**8/20/2011**	x			**ENT COR B**	**22.3**		**22.3**										
North Corridor East	**8/20/2011**	x			**ENT COR A**	**ND**												
Classroom 303	**8/20/2011**	x	x		**RM 303**	**20.8**	**ND**	**20.8**	< 12.4	< 12.4	< 12.4	< 24.9	< 24.9	< 24.9	< 37.3	< 37.3	< 62.2	< 62.2
Classroom 308	**8/20/2011**	x	x		**RM 308**	**ND**	**ND**		< 12.3	< 12.3	< 12.3	< 24.5	< 24.5	< 24.5	< 36.8	< 36.8	< 61.3	< 61.3
Gymnasium West	**8/20/2011**	x			**GYM A**	**30.5**		**30.5**										
Gymnasium East	**8/20/2011**	x	x		**GYM B**	**37.1**	**ND**	**37.1**	< 12.2	< 12.2	< 12.2	< 24.5	< 24.5	< 24.5	< 36.7	< 36.7	< 61.2	< 61.2
Science Room	**8/20/2011**	x	x		**RM 402**	**ND**	**ND**		< 12.6	< 12.6	< 12.6	< 25.2	< 25.2	< 25.2	< 37.8	< 37.8	< 63.1	< 63.1
Art & Industry Room	**8/20/2011**	x	x		**RM 404**	**ND**	**ND**		< 12.2	< 12.2	< 12.2	< 24.4	< 24.4	< 24.4	< 36.5	< 36.5	< 60.9	< 60.9
Outside (NW Cnr. of Bldg.)	**8/20/2011**	x			**OUTSIDE A**	**ND**												
Outside (S. Courtyard)	**8/20/2011**	x			**OUTSIDE B**	**ND**												
	9/22/2011		x		**OUTSIDE S COURTYARD**		**ND**		< 2.42	< 2.42	< 2.42	< 4.84	< 4.84	< 4.84	< 7.26	< 7.26	< 12.1	< 12.1

Notes:

Concentrations in nanograms (billionth of a gram) per cubic meter (ng/m3).

"<" or "ND" denotes = Not Detected at laboratory reporting limit.

Yellow shading denotes most recent indoor air sampling results

1 = Denotes sample dulicate.

08/01/11 - Initial IAS round - limited to 200-wing classrooms

08/20/11 - 2nd IAS round - comprehensive round throughout building

09/22/11 - 3rd IAS round - targeted to show effects of initial "cleaning".

11/08/11 - 4th IAS round - Limited to classrooms 209 & 108.

3/22/12 - 5th IAS Round - Post Mitigation 200-Wing, Cafeteria & Kitchen

Post Abatement Indoor Air Sample Results - Blue Highlight

12/28/12 - 6th IAS Round - Initial Post-Mitigation

12/23/13 - 7th IAS Round - 2nd Post-Mitigation

11/11/14 - 8th IAS Round - 3rd Post-mitigation

2/16/16 - 9th IAS Round - 4th Post-Mitigation

4/19/17 - 10th IAS Round - 5th Post-Mitigation

11/06/18 - 11th IAS Round - 6th Post-Mitigation

4/22/20 - 12th IAS Round - 7th Post-Mitigation

10/11/22 - 13th IAS Round - 8th Post-Mitigation

1/18/23 - 14th IAS Round - 9th Post-Mitigation

EPA Calculated Exposure Levels for Evaluating PCB's in School Indoor Air (ng/m^3), Health Protective GUIDANCE Values (EPA, November 12, 2022)

Age (years)	ng/m^3	
1-<2	100	
2-<3	100	
3-<6	200	
6-<12	300	Elementary School
12-<15	500	Middle School
15-<19	600	High School
19+	500	Adult

Table 4 - 2023 AIR SAMPLING LOG and AIR VOLUME CALCULATIONS

CLIENT: Town of Princeton
ECS Project: 0321663002
LOCATION: THOMAS PRINCE SCHOOL, 170 STERLING ROAD, PRINCETON, MA
DATE: 1/16/23
WEATHER: Cold (30°F), Cloudy
PERSONNEL: CEK
PURPOSE: IAS for PCB
Lab METHOD: TO-10A Method 680 Homologs
SMPL MEDIA: PUF
PUMP TYPE: Gilian
CAL EQUIP: Bios Defender 510 (5 ml/min - 5 L/min) sent - Mesalabs Defender 500 Series 10 ml/min - 500 ml/min Pine # 019929
CONTRACT LAB Alpha Analytical
Barometric Ps. 29.59 "Hg start 29.6 "Hg end Ave. Pressure "Hg
Altitude: 625'
SAMPLE Target Duration: 400 minutes (6 hr 40 min) @ 5L/min = 2 m^3 - Target flow rate to obtain target volume

SAMPLE ID	PUMP ID	On Loc Temp °F	Off Loc Temp °F	TIME Start (h/m/s)	TIME End (h/m/s)	Total Time (h/m/s)	Total Time (Mins)	Flow start (L/min)	Flow End (L/min)	AVE FLOW (L/min)	Vol of Air thru PUF (L)	Vol of Air Thru PUF (m^3)	ALPHA PUF ID	COMMENTS
RM 104	42618	82	82	0:13:54	7:00:23	6:46:29	406.48	5.130	5.226	5.1780	**2,104.8**	**2.1**		Gilian GilAir PLUS Air Sampling Pump, Pump Malfunctioned, had to adjust times
RM 110	26387	82	82	0:21:21	7:14:00	6:52:39	412.65	5.030	4.970	5.0000	**2,063.3**	**2.1**		Gilian GilAir PLUS Air Sampling Pump
RM 201	26389	74	74	0:35:00	6:47:33	6:12:33	372.55	5.190	5.220	5.2050	**1,939.1**	**1.9**		Gilian GilAir PLUS Air Sampling Pump
RM 205	28500	74	74	0:41:04	6:58:02	6:16:58	376.90	5.140	5.179	5.1595	**1,944.6**	**1.9**		Gilian GilAir PLUS Air Sampling Pump
Caf	r176269	74	74	0:06:38	7:01:10	6:54:32	414.50	5.110	5.187	5.1485	**2,134.1**	**2.1**		Gilian GilAir PLUS Air Sampling Pump
Lib	R217214	74	74	0:00:00	6:52:27	6:52:27	412.50	5.090	5.322	5.2060	**2,147.5**	**2.1**		Gilian GilAir PLUS Air Sampling Pump
DUP - RM 110	28490	82	82	0:27:20	6:54:00	6:26:40	386.70	5.130	5.148	5.1390	**1,987.3**	**2.0**		Gilian GilAir PLUS Air Sampling Pump, Pump Malfunctioned, had to adjust times
														Total time in min. x ave. flow rate in L/min.= total vol. of air in Liters passed through PUF. Total vol. of air in liters x (m^3/ 1000 Liters) = flow in m^3
														Samples collected with lights on and doors closed.
Flow Calibration Device	Defender 510													Defender 510-H, ID 41862, S/N 157531, Cal 12-15-2022, Due Dec 2018, Perf By Jim Denoncourt (Pine)

Thomas Prince School
170 Sterling Road
Princeton, Massachusetts

Table 5
2023 - Indoor Air Sample Concentration Conversions
(ng/cartridge to ng/m^3)

Indoor Air
USEPA Method TO-10A/680/8082
Polychlorinated Biphenyls

Sample Designation	Sampling Date	Measurement	Units	Total Homolog's	Homolog's (EPA Method 680)									
					Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl
Library	**10/11/2021**	**conc.**	**ng/cart**	**5.6**	<5	<5	<5	**5.56**	<5	<5	<5	<5	<5	,5
		flow	**m^3**		2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
		conc.	**ng/m^3**	**2.6**	#VALUE!	#VALUE!	#VALUE!	**2.6**	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!

Bolded value indicates detected compound

Light highlight indicates compound not detected above laboratory reporting limit

conc in ng/cartridge x total flow through cartridge in m^3 = conc. in ng/m^3

2/9/2023

ATTACHMENT I

ANALYTICAL REPORT

Lab Number:	L2302588
Client:	ATC Group Services LLC 10 State Street Suite 100 Woburn, MA 01801
ATTN:	Charles Klingler
Phone:	(774) 272-2212
Project Name:	TPS
Project Number:	03216630084PH2
Report Date:	01/23/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

Project Name: TPS
Project Number: 03216630084PH2

Lab Number: L2302588
Report Date: 01/23/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2302588-01	100 INT	WIPE	PRINCETON, MA	01/16/23 12:50	01/17/23
L2302588-02	104 INT	WIPE	PRINCETON, MA	01/16/23 12:55	01/17/23
L2302588-03	108 INT	WIPE	PRINCETON, MA	01/16/23 13:00	01/17/23
L2302588-04	203 INT	WIPE	PRINCETON, MA	01/16/23 13:15	01/17/23
L2302588-05	207 INT	WIPE	PRINCETON, MA	01/16/23 13:10	01/17/23
L2302588-06	209 INT	WIPE	PRINCETON, MA	01/16/23 13:04	01/17/23
L2302588-07	201 EXT	WIPE	PRINCETON, MA	01/16/23 13:50	01/17/23
L2302588-08	203 EXT	WIPE	PRINCETON, MA	01/16/23 13:55	01/17/23
L2302588-09	209 EXT	WIPE	PRINCETON, MA	01/16/23 13:46	01/17/23
L2302588-10	BLANK	WIPE	PRINCETON, MA	01/16/23 13:31	01/17/23
L2302588-11	207 EXT	WIPE	PRINCETON, MA	01/16/23 14:04	01/17/23
L2302588-12	205 EXT	WIPE	PRINCETON, MA	01/16/23 13:58	01/17/23

Project Name:	TPS	**Lab Number:**	L2302588
Project Number:	03216630084PH2	**Report Date:**	01/23/23

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 NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. 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. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. 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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management 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:  Kelly O'Neill

Title: Technical Director/Representative Date: 01/23/23

ORGANICS

PCBS

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-01
Client ID: 100 INT
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 12:50
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 15:10
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	0.542		ug/100cm2	0.500	--	1	B
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	0.542		ug/100cm2	0.500	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	92		30-150	B
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	73		30-150	A

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-02
Client ID: 104 INT
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 12:55
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 15:23
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	ND		ug/100cm2	0.500	--	1	B
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	ND		ug/100cm2	0.500	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	92		30-150	B
2,4,5,6-Tetrachloro-m-xylene	61		30-150	A
Decachlorobiphenyl	72		30-150	A

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-03
Client ID: 108 INT
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 13:00
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 15:36
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	ND		ug/100cm2	0.500	--	1	B
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	ND		ug/100cm2	0.500	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	65		30-150	B
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	51		30-150	A

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-04
Client ID: 203 INT
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 13:15
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 15:49
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	ND		ug/100cm2	0.500	--	1	A
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	ND		ug/100cm2	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	88		30-150	B
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	68		30-150	A

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-05
Client ID: 207 INT
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 13:10
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 16:01
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	ND		ug/100cm2	0.500	--	1	A
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	ND		ug/100cm2	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	87		30-150	B
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	68		30-150	A

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-06
Client ID: 209 INT
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 13:04
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 16:14
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	ND		ug/100cm2	0.500	--	1	A
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	ND		ug/100cm2	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	100		30-150	B
2,4,5,6-Tetrachloro-m-xylene	48		30-150	A
Decachlorobiphenyl	80		30-150	A

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-07
Client ID: 201 EXT
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 13:50
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 16:27
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	ND		ug/100cm2	0.500	--	1	A
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	ND		ug/100cm2	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	92		30-150	B
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	72		30-150	A

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-08
Client ID: 203 EXT
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 13:55
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 16:40
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	ND		ug/100cm2	0.500	--	1	A
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	ND		ug/100cm2	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	79		30-150	B
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	62		30-150	A

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-09
Client ID: 209 EXT
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 13:46
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 16:53
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	ND		ug/100cm2	0.500	--	1	A
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	ND		ug/100cm2	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	B
Decachlorobiphenyl	99		30-150	B
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	81		30-150	A

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-10
Client ID: BLANK
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 13:31
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 17:05
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	ND		ug/100cm2	0.500	--	1	A
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	ND		ug/100cm2	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	91		30-150	B
Decachlorobiphenyl	99		30-150	B
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	76		30-150	A

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-11
Client ID: 207 EXT
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 14:04
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 17:18
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	ND		ug/100cm2	0.500	--	1	A
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	ND		ug/100cm2	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	85		30-150	B
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	67		30-150	A

Project Name: TPS
Project Number: 03216630084PH2
Lab Number: L2302588
Report Date: 01/23/23

SAMPLE RESULTS

Lab ID: L2302588-12
Client ID: 205 EXT
Sample Location: PRINCETON, MA

Date Collected: 01/16/23 13:58
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 01/22/23 17:31
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/100cm2	0.500	--	1	A
Aroclor 1221	ND		ug/100cm2	0.500	--	1	A
Aroclor 1232	ND		ug/100cm2	0.500	--	1	A
Aroclor 1242	ND		ug/100cm2	0.500	--	1	A
Aroclor 1248	ND		ug/100cm2	0.500	--	1	A
Aroclor 1254	ND		ug/100cm2	0.500	--	1	A
Aroclor 1260	ND		ug/100cm2	0.500	--	1	A
Aroclor 1262	ND		ug/100cm2	0.500	--	1	A
Aroclor 1268	ND		ug/100cm2	0.500	--	1	A
PCBs, Total	ND		ug/100cm2	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	91		30-150	B
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	72		30-150	A

Project Name: TPS
Project Number: 03216630084PH2

Lab Number: L2302588
Report Date: 01/23/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 01/22/23 14:32
Analyst: ER

Extraction Method: EPA 3540C
Extraction Date: 01/18/23 09:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/21/23
Cleanup Method: EPA 3660B
Cleanup Date: 01/21/23

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-12 Batch: WG1734655-1						
Aroclor 1016	ND		ug/100cm2	0.500	--	A
Aroclor 1221	ND		ug/100cm2	0.500	--	A
Aroclor 1232	ND		ug/100cm2	0.500	--	A
Aroclor 1242	ND		ug/100cm2	0.500	--	A
Aroclor 1248	ND		ug/100cm2	0.500	--	A
Aroclor 1254	ND		ug/100cm2	0.500	--	A
Aroclor 1260	ND		ug/100cm2	0.500	--	A
Aroclor 1262	ND		ug/100cm2	0.500	--	A
Aroclor 1268	ND		ug/100cm2	0.500	--	A
PCBs, Total	ND		ug/100cm2	0.500	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	82		30-150	B
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	60		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: TPS

Project Number: 03216630084PH2

Lab Number: L2302588

Report Date: 01/23/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-12 Batch: WG1734655-2 WG1734655-3									
Aroclor 1016	75		68		40-140	10		50	A
Aroclor 1260	68		61		40-140	10		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		86		30-150	B
Decachlorobiphenyl	95		92		30-150	B
2,4,5,6-Tetrachloro-m-xylene	71		73		30-150	A
Decachlorobiphenyl	67		68		30-150	A

Project Name: TPS
Project Number: 03216630084PH2

Lab Number: L2302588
Report Date: 01/23/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2302588-01A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)
L2302588-02A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)
L2302588-03A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)
L2302588-04A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)
L2302588-05A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)
L2302588-06A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)
L2302588-07A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)
L2302588-08A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)
L2302588-09A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)
L2302588-10A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)
L2302588-11A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)
L2302588-12A	Glass 120ml/4oz w/1:4 Acetone:Hexane	B	NA		4.6	Y	Absent		PCB-8082-3540C_CM2(365)

*Values in parentheses indicate holding time in days

Project Name:	TPS	**Lab Number:**	L2302588
Project Number:	03216630084PH2	**Report Date:**	01/23/23

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	TPS	**Lab Number:**	L2302588
Project Number:	03216630084PH2	**Report Date:**	01/23/23

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

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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report

Project Name:	TPS	**Lab Number:**	L2302588
Project Number:	03216630084PH2	**Report Date:**	01/23/23

Data Qualifiers

ND - Not detected at the reporting limit (RL) for the sample.

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.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report

Project Name:	TPS	**Lab Number:**	L2302588
Project Number:	03216630084PH2	**Report Date:**	01/23/23

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

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

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
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.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, 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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

Serial_No:01232315:57

CHAIN OF CUSTODY

PAGE 1 OF 2

ALPHA ANALYTICAL

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Date Rec'd in Lab: 1/17/23 ATC

ALPHA Job #: L2302588

Project Information
Project Name: TPS
Project Location: Princeton MA
Project #: 0321663008, PH2
Project Manager: Klingler
ALPHA Quote #:

Report Information - Data Deliverables
☐ ADEx ☒ EMAIL

Billing Information
☒ Same as Client info PO #: TPS23

Client Information
Client: Atlas Technical
Address: 10 State St, Suite 100 Woburn, MA
Phone: 774-272-2212
Email: Charles.Klingler@oneatlas.com

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 TSCA Criteria Wipe

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due:

Additional Project Information:
Email invoice to me and Christine.Calhoun@oneatlas.com
Lab RL < 1 ug/wipe

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☒ PCB (3540C, 8082) ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint

SAMPLE INFO — Filtration: ☒ Field ☐ Lab to do; Preservation: ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	PCB	Sample Comments	Total # Bottles
02588-01	100 INT	1/16/23	12:50	Wipe	CEK	X		
02	104 INT	↓	12:55	↓	↓	X		
03	108 INT	↓	13:00	↓	↓	X		
04	203 INT	↓	13:15	↓	↓	X		
05	207 INT	↓	1310	↓	↓	X		
06	209 INT	↓	1304	↓	↓	X		
	~~100/102 EXT~~							
	~~104/106 EXT~~							
	~~108/110 EXT~~							
07	201 EXT	↓	13:50	↓	↓	X		

Container Type: G
Preservative: O

Container Type	Preservative
P= Plastic	A= None
A= Amber glass	B= HCl
V= Vial	C= HNO_3
G= Glass	D= H_2SO_4
B= Bacteria cup	E= NaOH
C= Cube	F= MeOH
O= Other	G= $NaHSO_4$
E= Encore	H = $Na_2S_2O_3$
D= BOD Bottle	I= Ascorbic Acid
	J = NH_4Cl
	K= Zn Acetate
	O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	1/17/23 0900	[signature] Storage	
[signature] Storage	1.17.23	Rob Maerte AAL	1-17-23 1030
Rob Maerte	1.17.23 1610	[signature]	1-17-23 16:10

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

Serial_No:01232315:57

CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 1/17/23

ALPHA Job #: L2302588

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Project Information

Project Name: TPS

Project Location: Princeton, MA (CEK)

Project #: 0321663008.4 PH2

Project Manager: Klingler

ALPHA Quote #:

Report Information - Data Deliverables

☐ ADEx ☑ EMAIL

Billing Information

☐ Same as Client info PO #: TPS 23

Client Information

Client: Atlas Technical

Address: 10 State St Suite 100, Woburn, MA

Phone: 774-272-2212

Email:

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 TSCA Criteria Wipes

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due:

Additional Project Information:

LAB RL < 1ug/wipe

Analysis

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST 3540C, 8082
TPH: ☐ Quant Only ☐ Fingerprint

SAMPLE INFO
Filtration ☑ Field ☐ Lab to do
Preservation ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	PCB (3540C, 8082)	Sample Comments	TOTAL # BOTTLES
02588-08	203 EXT	1/16/23	13:55	Wipe	CEK	X		
09	209 EXT	↓	13:46	Wipe	CEK	X		
10	BLANK	↓	13:31	Wipe	CEK	X		
11	207 EXT	↓	14:04	Wipe	CEK	X		
12	205 EXT	↓	13:57	Wipe	CEK	X		
	Container Type					G		
	Preservative					O		

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= HNO_3, D= H_2SO_4, E= NaOH, F= MeOH, G= $NaHSO_4$, H = $Na_2S_2O_3$, I= Ascorbic Acid, J = NH_4Cl, K= Zn Acetate, O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Chad E. Klingler	1/17/23 0900	Storage	
Storage	1-17-23	Rob Maestro AAL	1-17-23 1030

FORM NO: 01-01 (rev. 12-Mar-2012)

ATTACHMENT II

ANALYTICAL REPORT

Lab Number:	L2302683
Client:	ATC Group Services LLC 10 State Street Suite 100 Woburn, MA 01801
ATTN:	Charles Klingler
Phone:	(774) 272-2212
Project Name:	TPS
Project Number:	0321663004
Report Date:	02/02/23

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: TPS
Project Number: 0321663004

Lab Number: L2302683
Report Date: 02/02/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2302683-01	RM 104	AIR MEDIA	PRINCETON MA	01/16/23 07:00	01/17/23
L2302683-02	RM 110	AIR MEDIA	PRINCETON MA	01/16/23 07:14	01/17/23
L2302683-03	RM 110 DUP	AIR MEDIA	PRINCETON MA	01/16/23 06:54	01/17/23
L2302683-04	RM 201	AIR MEDIA	PRINCETON MA	01/16/23 06:47	01/17/23
L2302683-05	RM 205	AIR MEDIA	PRINCETON MA	01/16/23 06:58	01/17/23
L2302683-06	CAF	AIR MEDIA	PRINCETON MA	01/16/23 07:01	01/17/23
L2302683-07	LIB	AIR MEDIA	PRINCETON MA	01/16/23 06:52	01/17/23
L2302683-08	BLANK	AIR MEDIA	PRINCETON MA	01/16/23 07:14	01/17/23

Project Name:	TPS	**Lab Number:**	L2302683
Project Number:	0321663004	**Report Date:**	02/02/23

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 NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. 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. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. 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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name: TPS
Project Number: 0321663004

Lab Number: L2302683
Report Date: 02/02/23

Case Narrative (continued)

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: Christopher J. Anderson

Title: Technical Director/Representative

Date: 02/02/23

ORGANICS

PCBS

Project Name: TPS
Project Number: 0321663004
Lab Number: L2302683
Report Date: 02/02/23

SAMPLE RESULTS

Lab ID: L2302683-01
Client ID: RM 104
Sample Location: PRINCETON MA

Date Collected: 01/16/23 07:00
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air Media
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 01/22/23 14:56
Analyst: CNC

Extraction Method: EPA 3540C
Extraction Date: 01/19/23 14:16

Volume of Air: --

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners/Homologs (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	--	1
Dichlorobiphenyls	ND		ng/cart	5.00	--	1
Trichlorobiphenyls	ND		ng/cart	5.00	--	1
Tetrachlorobiphenyls	ND		ng/cart	5.00	--	1
Pentachlorobiphenyls	ND		ng/cart	5.00	--	1
Hexachlorobiphenyls	ND		ng/cart	5.00	--	1
Heptachlorobiphenyls	ND		ng/cart	5.00	--	1
Octachlorobiphenyls	ND		ng/cart	5.00	--	1
Nonachlorobiphenyls	ND		ng/cart	5.00	--	1
Decachlorobiphenyl	ND		ng/cart	5.00	--	1
Total PCB	ND		ng/cart	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13 (surr)	91		50-125
Cl8-BZ#202-C13 (surr)	88		50-125

Project Name: TPS
Project Number: 0321663004
Lab Number: L2302683
Report Date: 02/02/23

SAMPLE RESULTS

Lab ID: L2302683-02
Client ID: RM 110
Sample Location: PRINCETON MA

Date Collected: 01/16/23 07:14
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air Media
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 01/22/23 16:05
Analyst: CNC

Extraction Method: EPA 3540C
Extraction Date: 01/19/23 14:16

Volume of Air: --

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners/Homologs (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	--	1
Dichlorobiphenyls	ND		ng/cart	5.00	--	1
Trichlorobiphenyls	ND		ng/cart	5.00	--	1
Tetrachlorobiphenyls	ND		ng/cart	5.00	--	1
Pentachlorobiphenyls	ND		ng/cart	5.00	--	1
Hexachlorobiphenyls	ND		ng/cart	5.00	--	1
Heptachlorobiphenyls	ND		ng/cart	5.00	--	1
Octachlorobiphenyls	ND		ng/cart	5.00	--	1
Nonachlorobiphenyls	ND		ng/cart	5.00	--	1
Decachlorobiphenyl	ND		ng/cart	5.00	--	1
Total PCB	ND		ng/cart	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13 (surr)	91		50-125
Cl8-BZ#202-C13 (surr)	90		50-125

Project Name: TPS
Project Number: 0321663004
Lab Number: L2302683
Report Date: 02/02/23

SAMPLE RESULTS

Lab ID: L2302683-03
Client ID: RM 110 DUP
Sample Location: PRINCETON MA

Date Collected: 01/16/23 06:54
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air Media
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 01/22/23 17:14
Analyst: CNC

Extraction Method: EPA 3540C
Extraction Date: 01/19/23 14:16

Volume of Air: --

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners/Homologs (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	--	1
Dichlorobiphenyls	ND		ng/cart	5.00	--	1
Trichlorobiphenyls	ND		ng/cart	5.00	--	1
Tetrachlorobiphenyls	ND		ng/cart	5.00	--	1
Pentachlorobiphenyls	ND		ng/cart	5.00	--	1
Hexachlorobiphenyls	ND		ng/cart	5.00	--	1
Heptachlorobiphenyls	ND		ng/cart	5.00	--	1
Octachlorobiphenyls	ND		ng/cart	5.00	--	1
Nonachlorobiphenyls	ND		ng/cart	5.00	--	1
Decachlorobiphenyl	ND		ng/cart	5.00	--	1
Total PCB	ND		ng/cart	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13 (surr)	87		50-125
Cl8-BZ#202-C13 (surr)	86		50-125

Project Name: TPS
Project Number: 0321663004
Lab Number: L2302683
Report Date: 02/02/23

SAMPLE RESULTS

Lab ID: L2302683-04
Client ID: RM 201
Sample Location: PRINCETON MA

Date Collected: 01/16/23 06:47
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air Media
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 01/22/23 18:23
Analyst: CNC

Extraction Method: EPA 3540C
Extraction Date: 01/19/23 14:16

Volume of Air: --

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners/Homologs (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	--	1
Dichlorobiphenyls	ND		ng/cart	5.00	--	1
Trichlorobiphenyls	ND		ng/cart	5.00	--	1
Tetrachlorobiphenyls	ND		ng/cart	5.00	--	1
Pentachlorobiphenyls	ND		ng/cart	5.00	--	1
Hexachlorobiphenyls	ND		ng/cart	5.00	--	1
Heptachlorobiphenyls	ND		ng/cart	5.00	--	1
Octachlorobiphenyls	ND		ng/cart	5.00	--	1
Nonachlorobiphenyls	ND		ng/cart	5.00	--	1
Decachlorobiphenyl	ND		ng/cart	5.00	--	1
Total PCB	ND		ng/cart	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13 (surr)	93		50-125
Cl8-BZ#202-C13 (surr)	90		50-125

Project Name: TPS
Project Number: 0321663004
Lab Number: L2302683
Report Date: 02/02/23

SAMPLE RESULTS

Lab ID: L2302683-05
Client ID: RM 205
Sample Location: PRINCETON MA

Date Collected: 01/16/23 06:58
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air Media
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 01/22/23 19:32
Analyst: CNC

Extraction Method: EPA 3540C
Extraction Date: 01/19/23 14:16

Volume of Air: --

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners/Homologs (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	--	1
Dichlorobiphenyls	ND		ng/cart	5.00	--	1
Trichlorobiphenyls	ND		ng/cart	5.00	--	1
Tetrachlorobiphenyls	ND		ng/cart	5.00	--	1
Pentachlorobiphenyls	ND		ng/cart	5.00	--	1
Hexachlorobiphenyls	ND		ng/cart	5.00	--	1
Heptachlorobiphenyls	ND		ng/cart	5.00	--	1
Octachlorobiphenyls	ND		ng/cart	5.00	--	1
Nonachlorobiphenyls	ND		ng/cart	5.00	--	1
Decachlorobiphenyl	ND		ng/cart	5.00	--	1
Total PCB	ND		ng/cart	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13 (surr)	92		50-125
Cl8-BZ#202-C13 (surr)	83		50-125

Project Name: TPS
Project Number: 0321663004
Lab Number: L2302683
Report Date: 02/02/23

SAMPLE RESULTS

Lab ID: L2302683-06
Client ID: CAF
Sample Location: PRINCETON MA

Date Collected: 01/16/23 07:01
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air Media
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 01/22/23 20:42
Analyst: CNC

Extraction Method: EPA 3540C
Extraction Date: 01/19/23 14:16

Volume of Air: --

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners/Homologs (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	--	1
Dichlorobiphenyls	ND		ng/cart	5.00	--	1
Trichlorobiphenyls	ND		ng/cart	5.00	--	1
Tetrachlorobiphenyls	ND		ng/cart	5.00	--	1
Pentachlorobiphenyls	ND		ng/cart	5.00	--	1
Hexachlorobiphenyls	ND		ng/cart	5.00	--	1
Heptachlorobiphenyls	ND		ng/cart	5.00	--	1
Octachlorobiphenyls	ND		ng/cart	5.00	--	1
Nonachlorobiphenyls	ND		ng/cart	5.00	--	1
Decachlorobiphenyl	ND		ng/cart	5.00	--	1
Total PCB	ND		ng/cart	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13 (surr)	94		50-125
Cl8-BZ#202-C13 (surr)	89		50-125

Project Name: TPS
Project Number: 0321663004
Lab Number: L2302683
Report Date: 02/02/23

SAMPLE RESULTS

Lab ID: L2302683-07
Client ID: LIB
Sample Location: PRINCETON MA

Date Collected: 01/16/23 06:52
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air Media
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 01/22/23 21:51
Analyst: CNC

Extraction Method: EPA 3540C
Extraction Date: 01/19/23 14:16

Volume of Air: --

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners/Homologs (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	--	1
Dichlorobiphenyls	ND		ng/cart	5.00	--	1
Trichlorobiphenyls	ND		ng/cart	5.00	--	1
Tetrachlorobiphenyls	5.56		ng/cart	5.00	--	1
Pentachlorobiphenyls	ND		ng/cart	5.00	--	1
Hexachlorobiphenyls	ND		ng/cart	5.00	--	1
Heptachlorobiphenyls	ND		ng/cart	5.00	--	1
Octachlorobiphenyls	ND		ng/cart	5.00	--	1
Nonachlorobiphenyls	ND		ng/cart	5.00	--	1
Decachlorobiphenyl	ND		ng/cart	5.00	--	1
Total PCB	5.56		ng/cart	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13 (surr)	98		50-125
Cl8-BZ#202-C13 (surr)	95		50-125

Project Name: TPS
Project Number: 0321663004
Lab Number: L2302683
Report Date: 02/02/23

SAMPLE RESULTS

Lab ID: L2302683-08
Client ID: BLANK
Sample Location: PRINCETON MA
Date Collected: 01/16/23 07:14
Date Received: 01/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air Media
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 01/22/23 23:00
Analyst: CNC
Extraction Method: EPA 3540C
Extraction Date: 01/19/23 14:16

Volume of Air: --

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners/Homologs (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	--	1
Dichlorobiphenyls	ND		ng/cart	5.00	--	1
Trichlorobiphenyls	ND		ng/cart	5.00	--	1
Tetrachlorobiphenyls	ND		ng/cart	5.00	--	1
Pentachlorobiphenyls	ND		ng/cart	5.00	--	1
Hexachlorobiphenyls	ND		ng/cart	5.00	--	1
Heptachlorobiphenyls	ND		ng/cart	5.00	--	1
Octachlorobiphenyls	ND		ng/cart	5.00	--	1
Nonachlorobiphenyls	ND		ng/cart	5.00	--	1
Decachlorobiphenyl	ND		ng/cart	5.00	--	1
Total PCB	ND		ng/cart	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13 (surr)	98		50-125
Cl8-BZ#202-C13 (surr)	90		50-125

Project Name: TPS
Project Number: 0321663004
Lab Number: L2302683
Report Date: 02/02/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 01/22/23 12:38
Analyst: CNC

Extraction Method: EPA 3540C
Extraction Date: 01/19/23 14:16

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners/Homologs (LowVol) - Mansfield Lab for sample(s): 01-08 Batch: WG1735098-1					
Monochlorobiphenyls	ND		ng/cart	5.00	--
Dichlorobiphenyls	ND		ng/cart	5.00	--
Trichlorobiphenyls	ND		ng/cart	5.00	--
Tetrachlorobiphenyls	ND		ng/cart	5.00	--
Pentachlorobiphenyls	ND		ng/cart	5.00	--
Hexachlorobiphenyls	ND		ng/cart	5.00	--
Heptachlorobiphenyls	ND		ng/cart	5.00	--
Octachlorobiphenyls	ND		ng/cart	5.00	--
Nonachlorobiphenyls	ND		ng/cart	5.00	--
Decachlorobiphenyl	ND		ng/cart	5.00	--
Total PCB	ND		ng/cart	5.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13 (surr)	101		50-125
Cl8-BZ#202-C13 (surr)	95		50-125

Lab Control Sample Analysis

Batch Quality Control

Project Name: TPS

Project Number: 0321663004

Lab Number: L2302683

Report Date: 02/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners/Homologs (LowVol) - Mansfield Lab Associated sample(s): 01-08 Batch: WG1735098-2								
Cl1-BZ#1	92		-		40-140	-		30
CL1-BZ#3	88		-		40-140	-		30
Cl2-BZ#4/#10	90		-		40-140	-		30
Cl2-BZ#8	87		-		40-140	-		30
Cl3-BZ#19	92		-		40-140	-		30
Cl3-BZ#18	88		-		40-140	-		30
Cl2-BZ#15	85		-		40-140	-		30
Cl4-BZ#54	92		-		40-140	-		30
Cl3-BZ#29	88		-		40-140	-		30
Cl4-BZ#50	91		-		40-140	-		30
Cl3-BZ#-31	84		-		40-140	-		30
Cl3-BZ#28	86		-		40-140	-		30
Cl4-BZ#45	91		-		40-140	-		30
Cl4-BZ#52	92		-		40-140	-		30
Cl4-BZ#49	88		-		40-140	-		30
Cl5-BZ#104	92		-		40-140	-		30
Cl4-BZ#47	89		-		40-140	-		30
Cl4-BZ#44	88		-		40-140	-		30
Cl3-BZ#37	82		-		40-140	-		30
Cl5-BZ#121/#95/#88	91		-		40-140	-		30
Cl4-BZ#74	88		-		40-140	-		30
Cl6-BZ#155	89		-		40-140	-		30
Cl4-BZ#70	86		-		40-140	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TPS

Project Number: 0321663004

Lab Number: L2302683

Report Date: 02/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners/Homologs (LowVol) - Mansfield Lab Associated sample(s): 01-08 Batch: WG1735098-2								
Cl4-BZ#66	89		-		40-140	-		30
Cl5-BZ#101/#90	94		-		40-140	-		30
Cl4-BZ#56	88		-		40-140	-		30
Cl5-BZ#99	91		-		40-140	-		30
Cl5-BZ#87/#111	92		-		40-140	-		30
Cl6-BZ#154	93		-		40-140	-		30
Cl5-BZ#110	96		-		40-140	-		30
Cl4-BZ#81	88		-		40-140	-		30
Cl6-BZ#151	84		-		40-140	-		30
Cl6-BZ#147/#149	83		-		40-140	-		30
Cl4-BZ#77	78		-		40-140	-		30
Cl5-BZ#107/#123	86		-		40-140	-		30
Cl7-BZ#188	87		-		40-140	-		30
Cl5-BZ#118	82		-		40-140	-		30
Cl6-BZ#146	83		-		40-140	-		30
Cl5-BZ#114	85		-		40-140	-		30
Cl6-BZ#153	94		-		40-140	-		30
Cl5-BZ#105	87		-		40-140	-		30
Cl6-BZ#138	86		-		40-140	-		30
Cl6-BZ#129/#158	80		-		40-140	-		30
Cl7-BZ#187	86		-		40-140	-		30
Cl7-BZ#183	86		-		40-140	-		30
Cl5-BZ#126	83		-		40-140	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TPS

Project Number: 0321663004

Lab Number: L2302683

Report Date: 02/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners/Homologs (LowVol) - Mansfield Lab Associated sample(s): 01-08 Batch: WG1735098-2								
Cl7-BZ#174	80		-		40-140	-		30
Cl6-BZ#128	80		-		40-140	-		30
Cl6-BZ#167	84		-		40-140	-		30
Cl8-BZ#202	84		-		40-140	-		30
Cl7-BZ#177	86		-		40-140	-		30
Cl8-BZ#204/#200-CAL	84		-		40-140	-		30
Cl6-BZ#156	78		-		40-140	-		30
Cl6-BZ#157	87		-		40-140	-		30
Cl7-BZ#180	81		-		40-140	-		30
Cl8-BZ#201	80		-		40-140	-		30
Cl7-BZ#170	84		-		40-140	-		30
Cl6-BZ#169	85		-		40-140	-		30
Cl9-BZ#208	82		-		40-140	-		30
Cl7-BZ#189	80		-		40-140	-		30
Cl8-BZ#195	79		-		40-140	-		30
Cl8-BZ#194	82		-		40-140	-		30
Cl8-BZ#205	87		-		40-140	-		30
Cl9-BZ#206	81		-		40-140	-		30
Cl10-BZ#209	87		-		40-140	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TPS
Project Number: 0321663004

Lab Number: L2302683
Report Date: 02/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners/Homologs (LowVol) - Mansfield Lab Associated sample(s): 01-08 Batch: WG1735098-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Cl3-BZ#19-C13	88				50-125
Cl8-BZ#202-C13	84				50-125

Project Name: TPS
Project Number: 0321663004

Lab Number: L2302683
Report Date: 02/02/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2302683-01A	PUF Air Cartridge - High or Low	A	NA		4.7	Y	Absent		A2-PCB209-C/H-8270L(7)
L2302683-02A	PUF Air Cartridge - High or Low	A	NA		4.7	Y	Absent		A2-PCB209-C/H-8270L(7)
L2302683-03A	PUF Air Cartridge - High or Low	A	NA		4.7	Y	Absent		A2-PCB209-C/H-8270L(7)
L2302683-04A	PUF Air Cartridge - High or Low	A	NA		4.7	Y	Absent		A2-PCB209-C/H-8270L(7)
L2302683-05A	PUF Air Cartridge - High or Low	A	NA		4.7	Y	Absent		A2-PCB209-C/H-8270L(7)
L2302683-06A	PUF Air Cartridge - High or Low	A	NA		4.7	Y	Absent		A2-PCB209-C/H-8270L(7)
L2302683-07A	PUF Air Cartridge - High or Low	A	NA		4.7	Y	Absent		A2-PCB209-C/H-8270L(7)
L2302683-08A	PUF Air Cartridge - High or Low	A	NA		4.7	Y	Absent		A2-PCB209-C/H-8270L(7)

*Values in parentheses indicate holding time in days

Project Name:	TPS	**Lab Number:**	L2302683
Project Number:	0321663004	**Report Date:**	02/02/23

GLOSSARY

Acronyms

DL	- 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	TPS	**Lab Number:**	L2302683
Project Number:	0321663004	**Report Date:**	02/02/23

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

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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report

Project Name:	TPS	**Lab Number:**	L2302683
Project Number:	0321663004	**Report Date:**	02/02/23

Data Qualifiers

ND - Not detected at the reporting limit (RL) for the sample.

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.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report

Project Name:	TPS	**Lab Number:**	L2302683
Project Number:	0321663004	**Report Date:**	02/02/23

REFERENCES

105 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997 in conjunction with NOAA Technical Memorandum NMFS-NWFSC-59: Extraction, Cleanup and GC/MS Analysis of Sediments and Tissues for Organic Contaminants, March 2004 and the Determination of Pesticides and PCBs in Water and Oil/Sediment by GC/MS: Method 680, EPA 01A0005295, November 1985.

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

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
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.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, 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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

Project Number: 0321663004
Site: TPS
Matrix: PUF
Collection Date: 16-Jan-23

Sample Number	Client ID	Analysis	Concentration, ng/PUF	Concentration in ug/PUF	RL, ng/PUF	Sample Volume, Liters	Sample Volume, m^3	Sample Concentration, ug/m^3	Reporting Limit, ug/m^3
L2302683-01	RM 104	Monochlorobiphenyls	ND	0	5	2105	2.10	0.0000	0.002376
L2302683-01	RM 104	Dichlorobiphenyls	ND	0	5	2105	2.10	0.0000	0.002376
L2302683-01	RM 104	Trichlorobiphenyls	ND	0	5	2105	2.10	0.0000	0.002376
L2302683-01	RM 104	Tetrachlorobiphenyls	ND	0	5	2105	2.10	0.0000	0.002376
L2302683-01	RM 104	Pentachlorobiphenyls	ND	0	5	2105	2.10	0.0000	0.002376
L2302683-01	RM 104	Hexachlorobiphenyls	ND	0	5	2105	2.10	0.0000	0.002376
L2302683-01	RM 104	Heptachlorobiphenyls	ND	0	5	2105	2.10	0.0000	0.002376
L2302683-01	RM 104	Octachlorobiphenyls	ND	0	5	2105	2.10	0.0000	0.002376
L2302683-01	RM 104	Nonachlorobiphenyls	ND	0	5	2105	2.10	0.0000	0.002376
L2302683-01	RM 104	Decachlorobiphenyl	ND	0	5	2105	2.10	0.0000	0.002376
L2302683-01	RM 104	Total Homologs	0.0	0	5	2105	2.10	0.0000	0.002376
L2302683-02	RM 110	Monochlorobiphenyls	ND	0	5	2063	2.06	0.0000	0.002423
L2302683-02	RM 110	Dichlorobiphenyls	ND	0	5	2063	2.06	0.0000	0.002423
L2302683-02	RM 110	Trichlorobiphenyls	ND	0	5	2063	2.06	0.0000	0.002423
L2302683-02	RM 110	Tetrachlorobiphenyls	ND	0	5	2063	2.06	0.0000	0.002423
L2302683-02	RM 110	Pentachlorobiphenyls	ND	0	5	2063	2.06	0.0000	0.002423
L2302683-02	RM 110	Hexachlorobiphenyls	ND	0	5	2063	2.06	0.00000	0.002423
L2302683-02	RM 110	Heptachlorobiphenyls	ND	0	5	2063	2.06	0.0000	0.002423
L2302683-02	RM 110	Octachlorobiphenyls	ND	0	5	2063	2.06	0.0000	0.002423
L2302683-02	RM 110	Nonachlorobiphenyls	ND	0	5	2063	2.06	0.0000	0.002423
L2302683-02	RM 110	Decachlorobiphenyl	ND	0	5	2063	2.06	0.0000	0.002423
L2302683-02	RM 110	Total Homologs	0	0	5	2063	2.06	0.0000	0.002423
L2302683-03	RM 110 DUP	Monochlorobiphenyls	ND	0	5	1987	1.99	0.000	0.002516
L2302683-03	RM 110 DUP	Dichlorobiphenyls	ND	0	5	1987	1.99	0.0000	0.002516
L2302683-03	RM 110 DUP	Trichlorobiphenyls	ND	0	5	1987	1.99	0.0000	0.002516
L2302683-03	RM 110 DUP	Tetrachlorobiphenyls	ND	0	5	1987	1.99	0.0000	0.002516
L2302683-03	RM 110 DUP	Pentachlorobiphenyls	ND	0	5	1987	1.99	0.000	0.002516
L2302683-03	RM 110 DUP	Hexachlorobiphenyls	ND	0	5	1987	1.99	0.00000	0.002516
L2302683-03	RM 110 DUP	Heptachlorobiphenyls	ND	0	5	1987	1.99	0.0000	0.002516
L2302683-03	RM 110 DUP	Octachlorobiphenyls	ND	0	5	1987	1.99	0.0000	0.002516
L2302683-03	RM 110 DUP	Nonachlorobiphenyls	ND	0	5	1987	1.99	0.0000	0.002516
L2302683-03	RM 110 DUP	Decachlorobiphenyl	ND	0	5	1987	1.99	0.0000	0.002516
L2302683-03	RM 110 DUP	Total Homologs	0.0	0	5	1987	1.99	0.0000	0.002516

Project Number: 0321663004
Site: TPS
Matrix: PUF
Collection Date: 16-Jan-23

Sample Number	Client ID	Analysis	Concentration, ng/PUF	Concentration in ug/PUF	RL, ng/PUF	Sample Volume, Liters	Sample Volume, m^3	Sample Concentration, ug/m^3	Reporting Limit, ug/m^3
L2302683-04	RM 201	Monochlorobiphenyls	ND	0	5	1939	1.94	0.000	0.002579
L2302683-04	RM 201	Dichlorobiphenyls	ND	0	5	1939	1.94	0.000	0.002579
L2302683-04	RM 201	Trichlorobiphenyls	ND	0	5	1939	1.94	0.000	0.002579
L2302683-04	RM 201	Tetrachlorobiphenyls	ND	0	5	1939	1.94	0.000	0.002579
L2302683-04	RM 201	Pentachlorobiphenyls	ND	0	5	1939	1.94	0.0000	0.002579
L2302683-04	RM 201	Hexachlorobiphenyls	ND	0	5	1939	1.94	0.00000	0.002579
L2302683-04	RM 201	Heptachlorobiphenyls	ND	0	5	1939	1.94	0.0000	0.002579
L2302683-04	RM 201	Octachlorobiphenyls	ND	0	5	1939	1.94	0.0000	0.002579
L2302683-04	RM 201	Nonachlorobiphenyls	ND	0	5	1939	1.94	0.0000	0.002579
L2302683-04	RM 201	Decachlorobiphenyl	ND	0	5	1939	1.94	0.0000	0.002579
L2302683-04	RM 201	Total Homologs	0	0	5	1939	1.94	0.0000	0.002579
L2302683-05	RM 205	Monochlorobiphenyls	ND	0	5	1945	1.94	0.000	0.002571
L2302683-05	RM 205	Dichlorobiphenyls	ND	0	5	1945	1.94	0.0000	0.002571
L2302683-05	RM 205	Trichlorobiphenyls	ND	0	5	1945	1.94	0.0000	0.002571
L2302683-05	RM 205	Tetrachlorobiphenyls	ND	0	5	1945	1.94	0.0000	0.002571
L2302683-05	RM 205	Pentachlorobiphenyls	ND	0	5	1945	1.94	0.000	0.002571
L2302683-05	RM 205	Hexachlorobiphenyls	ND	0	5	1945	1.94	0.0000	0.002571
L2302683-05	RM 205	Heptachlorobiphenyls	ND	0	5	1945	1.94	0.0000	0.002571
L2302683-05	RM 205	Octachlorobiphenyls	ND	0	5	1945	1.94	0.0000	0.002571
L2302683-05	RM 205	Nonachlorobiphenyls	ND	0	5	1945	1.94	0.0000	0.002571
L2302683-05	RM 205	Decachlorobiphenyl	ND	0	5	1945	1.94	0.0000	0.002571
L2302683-05	RM 205	Total Homologs	0	0	5	1945	1.94	0.0000	0.002571
L2302683-06	CAF	Monochlorobiphenyls	ND	0	5	2134	2.13	0.0000	0.002571
L2302683-06	CAF	Dichlorobiphenyls	ND	0	5	2134	2.13	0.000	0.002571
L2302683-06	CAF	Trichlorobiphenyls	ND	0	5	2134	2.13	0.0000	0.002571
L2302683-06	CAF	Tetrachlorobiphenyls	ND	0	5	2134	2.13	0.000	0.002571
L2302683-06	CAF	Pentachlorobiphenyls	ND	0	5	2134	2.13	0.000	0.002571
L2302683-06	CAF	Hexachlorobiphenyls	ND	0	5	2134	2.13	0.0000	0.002571
L2302683-06	CAF	Heptachlorobiphenyls	ND	0	5	2134	2.13	0.0000	0.002571
L2302683-06	CAF	Octachlorobiphenyls	ND	0	5	2134	2.13	0.0000	0.002571
L2302683-06	CAF	Nonachlorobiphenyls	ND	0	5	2134	2.13	0.0000	0.002571
L2302683-06	CAF	Decachlorobiphenyl	ND	0	5	2134	2.13	0.0000	0.002343
L2302683-06	CAF	Total Homologs	0.0	0	5	2134	2.13	0.0000	0.002343

Project Number: 0321663004
Site: TPS
Matrix: PUF
Collection Date: 16-Jan-23

Sample Number	Client ID	Analysis	Concentration, ng/PUF	Concentration in ug/PUF	RL, ng/PUF	Sample Volume, Liters	Sample Volume, m^3	Sample Concentration, ug/m^3	Reporting Limit, ug/m^3
L2302683-07	LIB	Monochlorobiphenyls	ND	0	5	2148	2.15	0.000	0.001389
L2302683-07	LIB	Dichlorobiphenyls	ND	0	5	2148	2.15	0.0000	0.001389
L2302683-07	LIB	Trichlorobiphenyls	ND	0	5	2148	2.15	0.000	0.001389
L2302683-07	LIB	Tetrachlorobiphenyls	5.56	0.00556	5	2148	2.15	0.0026	0.001389
L2302683-07	LIB	Pentachlorobiphenyls	ND	0	5	2148	2.15	0.000	0.001389
L2302683-07	LIB	Hexachlorobiphenyls	ND	0	5	2148	2.15	0.0000	0.001389
L2302683-07	LIB	Heptachlorobiphenyls	ND	0	5	2148	2.15	0.0000	0.001389
L2302683-07	LIB	Octachlorobiphenyls	ND	0	5	2148	2.15	0.0000	0.001389
L2302683-07	LIB	Nonachlorobiphenyls	ND	0	5	2148	2.15	0.0000	0.001389
L2302683-07	LIB	Decachlorobiphenyl	ND	0	5	2148	2.15	0.0000	0.002328
L2302683-07	LIB	Total Homologs	5.6	0.00556	5	2148	2.15	0.0026	0.002328

Project Number: 0321663004
Site: TPS
Matrix: PUF
Collection Date: 16-Jan-23

Sample Number	Client ID	Analysis	Concentration, ng/PUF	Concentration in ug/PUF	RL, ng/PUF	Sample Volume, Liters	Sample Volume, m^3	Sample Concentration, ug/m^3	Reporting Limit, ug/m^3
L2302683-08	BLANK	Monochlorobiphenyls	ND	0	5	0	0.00	#DIV/0!	#DIV/0!
L2302683-08	BLANK	Dichlorobiphenyls	ND	0	5	0	0.00	#DIV/0!	#DIV/0!
L2302683-08	BLANK	Trichlorobiphenyls	ND	0	5	0	0.00	#DIV/0!	#DIV/0!
L2302683-08	BLANK	Tetrachlorobiphenyls	ND	0	5	0	0.00	#DIV/0!	#DIV/0!
L2302683-08	BLANK	Pentachlorobiphenyls	ND	0	5	0	0.00	#DIV/0!	#DIV/0!
L2302683-08	BLANK	Hexachlorobiphenyls	ND	0	5	0	0.00	#DIV/0!	#DIV/0!
L2302683-08	BLANK	Heptachlorobiphenyls	ND	0	5	0	0.00	#DIV/0!	#DIV/0!
L2302683-08	BLANK	Octachlorobiphenyls	ND	0	5	0	0.00	#DIV/0!	#DIV/0!
L2302683-08	BLANK	Nonachlorobiphenyls	ND	0	5	0	0.00	#DIV/0!	#DIV/0!
L2302683-08	BLANK	Decachlorobiphenyl	ND	0	5	0	0.00	#DIV/0!	#DIV/0!
L2302683-08	BLANK	Total Homologs	0.0	0	5	0	0.00	#DIV/0!	#DIV/0!

AIR ANALYSIS - SORBENT MEDIA CHAIN OF CUSTODY

Page 1 of 1

Date Rec'd in Lab 1/17/23

ALPHA Job # L2302683

Westborough, MA TEL: 508-898-9220 FAX: 508-822-3288
Mansfield, MA TEL: 508-822-9300 508-822-3288

Client Information

Client: Atlas Technical
Address: 10 State St. Suite 100 Woburn MA
Phone: 774-272-2212
Fax:
Email: Charles.Klingler@oneatlas.com

Project Information

Project Name: TPS
Project Location: Princeton MA
Project #: 03216630084
(Use Project name as Project #)
Project Manager: Klingler
ALPHA Quote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEX
Criteria Checker:
Other Formats:
☒ EMAIL
☐ Add'l Deliverables

Report to: (if different than Manager)

Billing Information

☒ Same as Client Info
PO # TPS 23

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
EPA TSCA	School	<50 ng/m3

These samples have been previously analyzed by Alpha: ☐

Other Project Specific Requirements / Comments/Detection Limits

RL to be < 50 ng/m3
Air Samples collected per EPA Mtd TO-10A

For PCBs Selection is REQUIRED
☐ Congeners
☒ Homologs
☐ Aroclors (low Vol only)

NOTE: For metals, please specify elements of interest and media type.
☐ PM-10 Filter
☐ TSP Filter
☐ MCE

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Date	Start Time	End Time	Flow Rate (L/min)	Total Volume(L)	Sample Matrix*	Sampler's Initials	Media ID# (1)	TO-13A	PCBs (High Vol)	PCBs (Low Vol) EPA Mtd 680	Hg via NIOSH 6009 Mod.	Metals	PM-10 Filter	TSP Filter		Sample Comments (i.e. PID)
02683-01	RM 104	1/16/23	0:13:54	7:00:23	5.178	2.1	PUF AA	CEK				X						
-02	RM 110	↓	0:21:29	7:14:00	5.000	2.1	↓	↓				X						
-03	RM 110 DUP		0:27:20	6:54:00	5.139	2.0						X						
-04	RM 201		0:35:00	6:47:33	5.205	1.9						X						
-05	RM 205		0:41:04	6:58:02	5.16	1.9						X						
-06	CAF		0:06:38	7:01:10	5.149	2.1						X						
-07	LIB		0:00:00	6:51:27	5.206	2.1						X						
-08	BLANK	↓	0:00:00	7:14:00	—		↓	↓				X						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

(1) Required for PUF cartridges, PM-10 and TSP filters

Media Type	TO-13A	PCBs (High Vol)	PCBs (Low Vol)	Hg	Metals	PM-10	TSP
	P	P	(P)	T	F	F	F

Media Code
F = Filter
P = PUF Cartridge
T = Sorbent Tube
O = Other

Relinquished By:	Date/Time	Received By:	Date/Time
Charles E. Klingler	1/17/23 0900	Storage	
Storage	1-17-23	Rob Manto AAL	1-17-23 10:30
Rob Manto	1-17-23 1610	[illegible]	1-17-23 16:10
[illegible]	1/17/23 1930	R. Manto	1/17/23 1930
R. Manto	1/17/23 2030	[illegible]	1/17/23 2030

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 101-20 (rev 23-MARCH 2020)

ATTACHMENT III

ANNUAL VISUAL INSPECTION FORM

Thomas Prince School
170 Sterling Road, Princeton, Massachusetts

Date: 1/16/2023 **Room #:** INT 100, 102, 104, 106, 108 & 110

Weather: Cold, Cloudy

Name of Inspector: Klingler

Inspection Criteria	Epoxy Coated Porous Surfaces
Is the coating peeling, chipping, or otherwise compromised?	☐ **Yes** **if yes, describe:** ☑ **No**
Is maintenance of the coating needed?	☑ **Yes** **if yes, describe Yes** ☐ **No**
Were wipe samples collected?	☑ **Yes** Wipe samples collected from classrooms 100, 104 & 108. ☐ **No**

ANNUAL VISUAL INSPECTION FORM

Thomas Prince School
170 Sterling Road, Princeton, Massachusetts

Date: 1/16/2023 **Room #:** INT 201, 203, 205, 207, 209 & 211

Weather: Overcast, Cool

Name of Inspector: Klingler

Inspection Criteria	Epoxy Coated Porous Surfaces
Is the coating peeling, chipping, or otherwise compromised?	☑ **Yes** **if yes, describe:** Exception - slight cracking on uppermost center block of 201, chipping on uppermost center block at 211 ☑ **No**
Is maintenance of the coating needed?	☐ **Yes** **if yes, describe Yes** ☑ **No**
Were wipe samples collected?	☑ **Yes** Wipe samples collected from classrooms, 203, 207 & 209. ☐ **No**

ANNUAL VISUAL INSPECTION FORM

Thomas Prince School
170 Sterling Road, Princeton, Massachusetts

Date: 1/16/2023 **Room #:** EXT 100/102, 104/106 & 108/110

Weather: Cold, Cloudy

Name of Inspector: Klingler

Inspection Criteria	Epoxy Coated Porous Surfaces
Is the coating peeling, chipping, or otherwise compromised?	❑ **Yes** **if yes, describe:** ☑ **No**
Is maintenance of the coating needed?	❑ **Yes** **if yes, describe Yes** ☑ **No**
Were wipe samples collected?	❑ **Yes** ☑ **No**

Air Intake Grates looked Good.

ANNUAL VISUAL INSPECTION FORM

Thomas Prince School
170 Sterling Road, Princeton, Massachusetts

Date: 1/16/2023 **Room #:** EXT 201, 203, 205, 207, 209 & 211

Weather: Cold, Cloudy

Name of Inspector: Klingler

Inspection Criteria	Epoxy Coated Porous Surfaces
Is the coating peeling, chipping, or otherwise compromised?	☐ **Yes** **if yes, describe:** ☑ **No**
Is maintenance of the coating needed?	☐ **Yes** **if yes, describe Yes** ☑ **No**
Were wipe samples collected?	☑ **Yes** Wipe samples collected from exterior of classroom windows 201, 203, 205, 207 & 209. ☐ **No**