

September 4, 2020

Mr. Dennis Marker  
City Manager  
City of Caribou  
25 High Street  
Caribou, Maine 04736

**Re: Limited Soil Investigation Report | Former Birdseye Plant | 27 Birdseye Avenue,  
Caribou, Maine**

Dear Mr. Marker:

CES, Inc. (CES) is pleased to provide the City of Caribou (City) with this report for the Limited Soil Investigation (LSI) completed at the former Birdseye Plant in Caribou, Maine. The purpose of the LSI was to characterize the nature and extent of the debris piles identified in Areas of Concern (AOCs) 7 and 8, which had been identified in previous investigations, but not evaluated. The additional information provided in this LSI may be used to update the Conceptual Site Model (CSM) and may help the City decide whether to apply for liability protection under the Maine Department of Environmental Protection (MDEP) Voluntary Response Action Program (VRAP) and/or continue pursuing Brownfields funding through the U.S. Environmental Protection Agency (USEPA). The Scope of Work for this LSI was discussed with you prior to mobilization.

## BACKGROUND

### Site History

The Site consists of approximately 21.6 acres and is located at the southwest corner of the Route 1 and Fort Street intersection in Caribou, Maine. Refer to the attached Site Location Map. Recently demolished structures included an 83,600-square foot concrete block industrial building (the Main Production Building), a Bioethane Building, oil silos, boiler house, Frozen Foods Building, Scale House, and a Sand Shed. The Site is identified by the City of Caribou Tax Assessor's Office as Lots 74, 74A, 74B, 74C, and 74E on Tax Map 27, Lot 57 on Map 28, and Lots 2B and 146 on Map 25. The property is located within the Industrial 2 Zone and is currently vacant. Previously reviewed records indicate that public water lines, sanitary sewer lines, and stormwater lines, as well as process waste piping, are located at the Site. Other various subsurface structures (tunnels, access ways, etc.) associated with past facility operations may still exist at the Site.

Review of available information indicates that the Site was operated as a vegetable freezing and potato product plant between 1943 and 1991. Prior to development in 1943, the site was reportedly undeveloped farmland.

### Previous Investigations Related to AOC 7 and AOC 8 Soils

A Phase I Environmental Site Assessment, performed by County Environmental Engineering (CEE) in July of 2013, identified Recognized Environmental Conditions (RECs) and CEE concluded that additional assessment and investigation was warranted and recommended performing a Phase II subsurface investigation. Based on the data collected during this Phase II ESA, CEE recommended the following:

1. Develop a Soil Management Plan for the Site that addresses the identified contamination in accessible soils and potential contamination at depth in the Boneyard and UST areas.
2. Properly secure the on-site water supply wells by capping and locking.
3. On-site debris, partially buried debris, and any remaining universal waste should be managed for disposal or recycling in accordance with Maine Solid and Universal Waste Regulations.
4. Conduct a complete asbestos survey of the entire site prior to reuse, renovation, or demolition.
5. Submit a Voluntary Response Action Program (VRAP) application to the MDEP to obtain liability protections.

Phase II investigations, findings and recommendations summarized above were reported in the Phase II Environmental Site Assessment – Former Frozen Foods Property, 27 Birdseye Avenue Caribou, Maine dated February 25, 2014.

### LIMITED SOIL INVESTIGATION

As discussed with the City, to minimize the size of AOCs 7 and 8, and to reduce the scope of any remedial actions or future management of the AOCs, a LSI was completed on the debris piles in each AOC to characterize the nature and extent of the debris.

On August 4, 2020, the debris pile in AOC 7 was mostly disassembled to identify the type and extent of the debris. An excavator operator from McGillan, Inc. (McGillan) and Mr. David Hopkins, Jr. PE, (CES) were on site for the duration of the day, with periodic visits from City staff. CES observed and recorded the type of debris encountered in the debris pile which appeared to be miscellaneous waste from the former plant operations. Debris encountered primarily consisted of various plastic packaging material (bags, strapping, etc.), plastic water pipe, empty plastic and metal drums, miscellaneous metal debris, fencing, and several forklift tires and miscellaneous other tires. (See Photo 1 of the Photo Log). Materials were separated into piles consisting of tires, metals, and various other debris for later disposal. Test pits 7A, B, C, and D were also excavated on August 4, 2020, to a depth of approximately 6 feet below ground surface (bgs).

See the attached Site Sketch for approximate test pit locations. The test pits consisted primarily of brown silty loam and small cobbles and could be waste material from the processing of potatoes. Small pockets of black organic-type material was encountered near the bottoms of test pits 7A and 7C. A sample of the material was collected from test pit 7A and submitted for laboratory analysis for the presence of semi volatile organic compounds (SVOCs) (See the Photo Log, Photo 2 for test pit 7A). East of test pit 7B was what appeared to be a small pile of building demolition debris, containing masonry and concrete (See Photo Log, Photo 10). Pieces of pipe wrap/insulation, consisting of two layers of aluminum wrap with an interstitial space containing suspect asbestos-containing material (ACM) was observed within the debris pile. A sample of the suspect ACM was collected for laboratory analysis.

On August 5, 2020, McGillan proceeded to test pit in the areas of AOC 8, reported as “partially buried debris” in the Phase II ESA report. Test pits 8A through 8S were completed in the approximate areas shown on the attached Site sketch. Test pit logs are included in **Attachment 4** and some test pit photos are found within the photolog. The test pits primarily consisted of brown silty loam and small cobbles, a waste typical of a potato processing facility. Several miscellaneous forklift tires and a small quantity of metal debris was encountered on the surface. A limited (less than (<) 1 cubic yard (CY)) of asphalt and concrete were found on the surface near test pit 8N. Test pits 8N and 8S were excavated approximately 6 feet bgs to what appeared to be a confining layer of gray soil. Samples of this gray soil were collected from each test pit. The sample collected from test pit 8N was analyzed for SVOCS while the sample collected in test pit 8S was analyzed for both volatile organic compounds (VOCs) and SVOCs. Some surficial debris was noted on the east side of the former trail, east of test pit 8R. A test pit (6 feet bgs) was excavated in this area revealing apparent building debris and one piece of transite pipe, approximately 8 inches in diameter and 6 feet long, at which point work was stopped and the material reburied.

On August 6, 7, and 10, City crews, with the assistance of McGillan, removed the AOC 7 debris pile and miscellaneous minor debris from AOC 8, and disposed of this non-hazardous debris at the Tri-Community landfill in Fort Fairfield, Maine.

On August 13, CES returned to the site to collect surficial samples from under where the former AOC 7 debris pile was located. Two composite samples, one from the north half (sample “7N”) and one from the south half (sample “7S”) of the former debris pile footprint, were collected and submitted for SVOC analysis.

## FINDINGS

Visible staining and olfactory evidence (detectable odors) of petroleum impacts or other hazardous substances was not detected from the debris piles/test pits in either AOC 7 or AOC 8.

**AOC 7.** The debris piles in AOC 7 appeared to consist of either former plant operations debris or process debris. The black pocket of organic-type material found in test pit 7A, was non-detect

for all SVOCs. The suspect ACM pipe insulation found in the building rubble material, east of test pit 7B, tested positive for ACM. The two surface soils samples (7N and 7S) collected below the former debris pile contained levels of SVOCs below the MDEP Remedial Action Guidelines (RAGs), as shown on the attached table, with the exception of benzo(a)pyrene for both samples. The benzo(a)pyrene concentrations found (2.60 and 2.90 mg/kg) exceed only the “Residential” RAG of 1.6 mg/kg. Laboratory results for test pit 7A, the ACM, and for the two surface soil samples below the former debris pile can be found in **Attachment 4**.

**AOC 8.** The debris piles in AOC 8 appeared to consist of former plant operations processing debris (brown silty loam and small rocks) with minor (less than 1%) scattered operations debris (forklift tires, misc. metal, concrete, asphalt). Gray-colored soils were observed at the bottoms of test pits 8N and 8S, and samples were collected for SVOCs at each, and also for VOCs in test pit 8 S. The results for the sample at test pit 8N were non-detect for all SVOCs. The results for the sample taken at test pit 8S showed low levels of SVOCs, all below Maine RAGs, as shown on the attached table. VOC results for test pit 8S were all non-detect.

Some surficial debris was noted on the east side of a former trail, east of test pit 8 R. A test pit (6 feet bgs) was excavated revealing apparent building demolition debris and one piece of transite pipe, approximately 8 inches in diameter and 6 feet long. Work was stopped and the material reburied.

## CONCLUSION

Observations and laboratory analysis of the contents of the debris piles in AOCs 7 and 8 indicate that these debris piles do not represent a significant threat or continuing source of contamination to the Site. Based upon the findings of this LSI, together with the findings of previous investigations, it is apparent that the only future land use that may be restricted in AOC 7 or AOC 8 is residential use (unless additional soil removal is completed under the former debris pile in AOC 7) and groundwater extraction for potable water (based on Phase II information).

## LIMITATIONS

CES only investigated the AOC 7 and AOC 8 debris pile areas of the Site. Residual petroleum or hazardous substance impacts, or concentrations greater than those detected by the laboratory analysis may exist in other areas of the Site.

## RECOMMENDATIONS

1. Dismantle the building rubble material pile, east of test pit 7 B, and separate the friable ACM insulation for proper containerization and disposal. This activity should be supervised by a certified Asbestos Professional/Supervisor and all workers should be properly trained. The transite pipe found in the test pit east of test pit 8R should also be removed and properly disposed of.

2. If the City prefers to consider residential use in the area of the debris pile associated with AOC7, additional soil removal or capping the area with a soil cover, would be required.
3. Properly secure or close the on-site water supply wells, if not contemplated for non-potable reuse.
4. Submit a Voluntary Response Action Program (VRAP) application to the MDEP to obtain liability protections.

Please do not hesitate to contact us at (207) 227-3446 if you have any questions related to this project or if additional services are required.

Sincerely,  
CES, Inc.

A handwritten signature in blue ink, appearing to read "David Hopkins Jr.", is written over a light blue horizontal line.

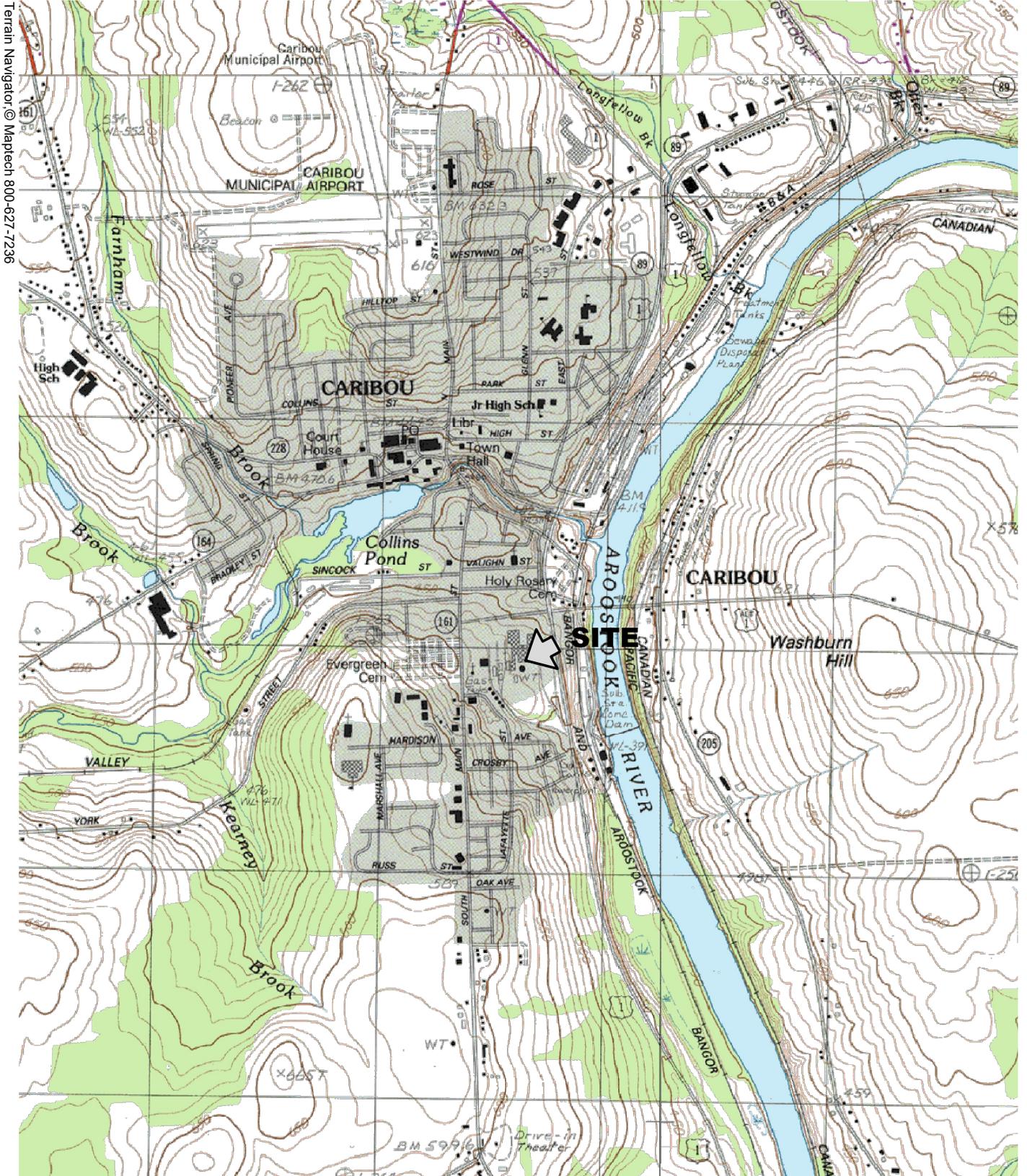
David Hopkins Jr. P.E.  
Senior Project Engineer

DSH/ahh/dbk

#### Attachments

1. Site Location Map
2. Limited Soil Investigation figure
3. Photo Log
4. Laboratory results summary table
5. Laboratory results

**ATTACHMENT 1**  
**SITE LOCATION MAP**



Terrain Navigator © Maptech 800-627-7236

SOURCE:  
 U.S.G.S. TOPOGRAPHIC QUADRANGLE  
 CARIBOU  
 @ 1:24,000

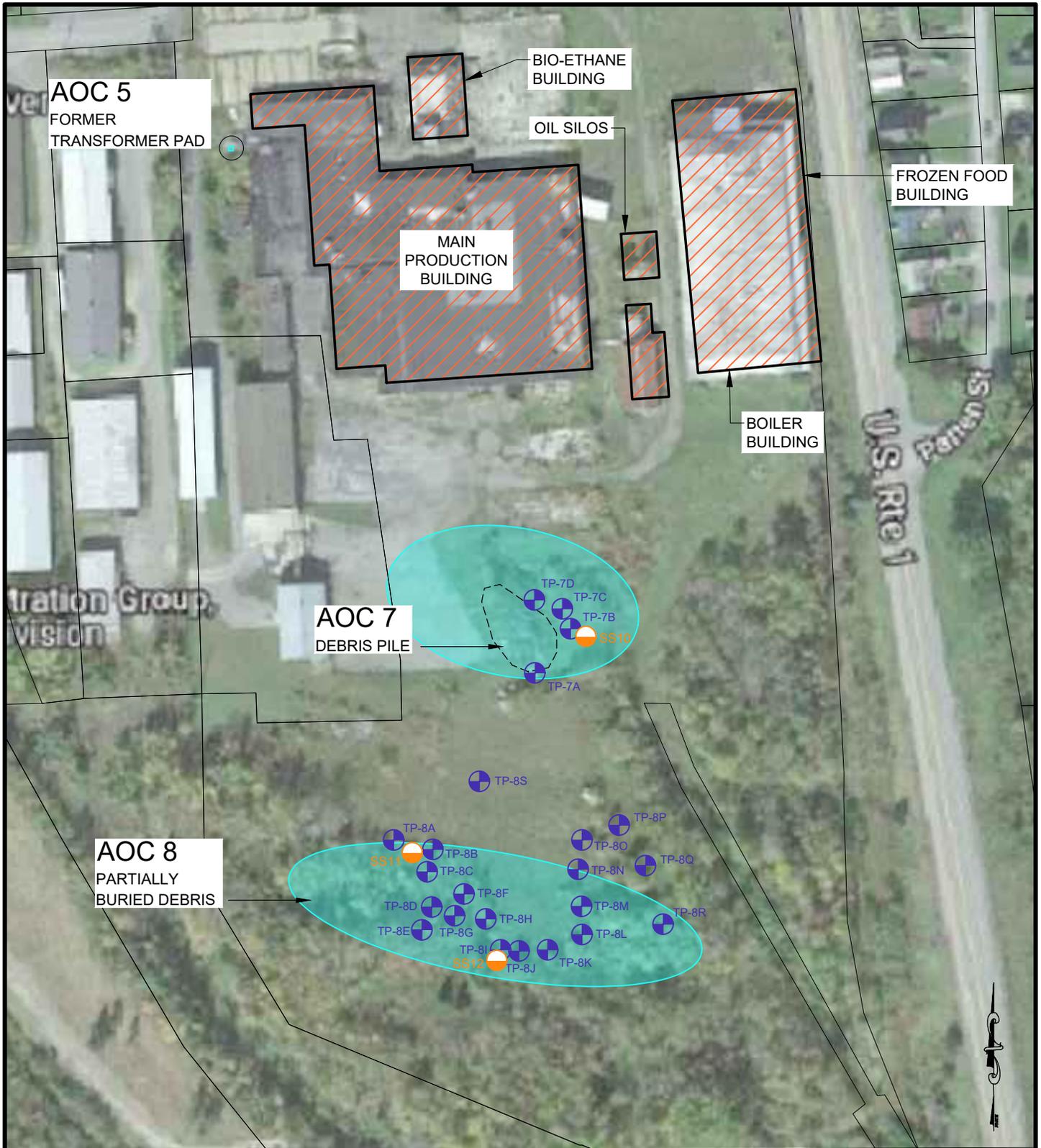


**FIGURE 1**  
**32 BIRDSEYE AVENUE**  
**LOCATION MAP**

OCTOBER 2017  
 10963.004

**ATTACHMENT 2**

**LIMITED SOIL INVESTIGATION**



BUILDINGS DEMOLISHED SINCE JANUARY 2015 ABCA



TEST PIT LOCATION



ACCESSIBLE SOIL



**FORMER BIRDSEYE FACILITY  
CARIBOU, MAINE**

DWG: **C101**

BY: BLQ  
DATE: 2020.09.01

**LIMITED SOIL  
INVESTIGATION**

JN: 10963.005  
SCALE: 1"=150'

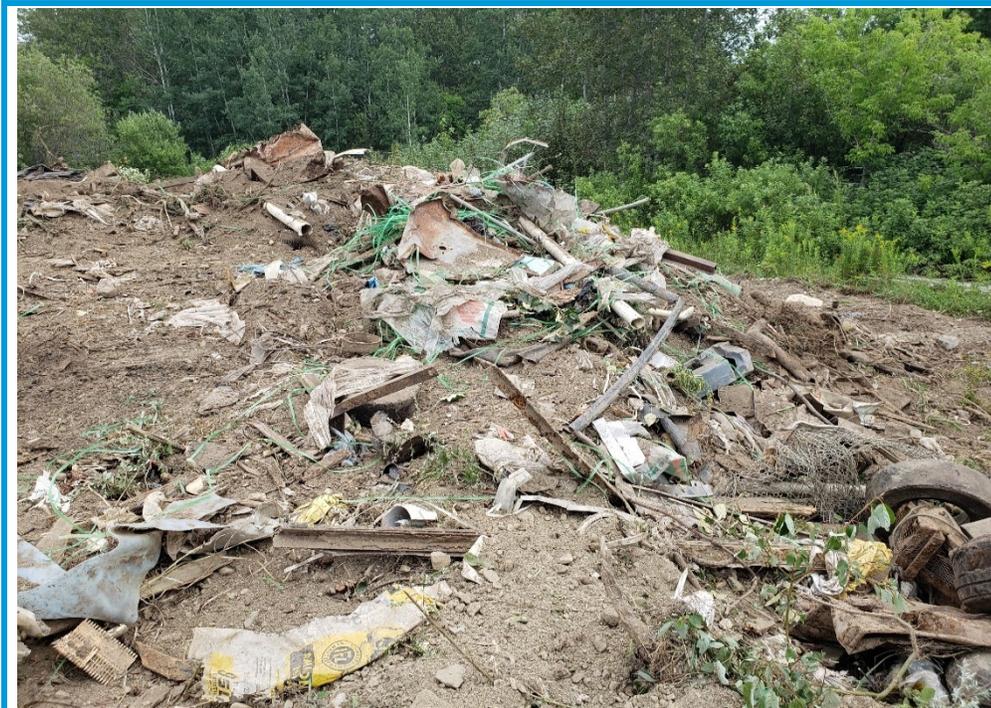
REV:  
REV DATE:



**ATTACHMENT 3**

**PHOTO LOG**

**FORMER BIRDSEYE FACILITY  
CARIBOU, MAINE**



**Photo No. 1**

**Photo Date:**  
2020.08.04

**Site Location:**  
Former Birdseye  
Facility, Caribou,  
Maine

**Description:**  
AOC 7 Debris Pile.  
Packing plastics,  
misc. metals, forklift  
tires, plastic pipe, etc.

**Photo By:**  
DSH



**Photo No. 2**

**Photo Date:**  
2020.08.04

**Site Location:**  
Former Birdseye  
Facility, Caribou,  
Maine

**Description:**  
Test Pit 7A. Primarily  
small rocks possibly  
from potato  
processing. Black  
pocket of organic  
material found at  
approx. 6 feet bgs.  
Sample taken.

**Photo By:**  
DSH



**FORMER BIRDSEYE FACILITY  
CARIBOU, MAINE**



**Photo No. 3**

**Photo Date:**  
2020.08.05

**Site Location:**  
Former Birdseye  
Facility, Caribou,  
Maine

**Description:**  
Test Pit 8B. Fine silty  
loam, likely from  
potato processing.

**Photo By:**  
DSH



**Photo No. 4**

**Photo Date:**  
2020.08.05

**Site Location:**  
Former Birdseye  
Facility, Caribou,  
Maine

**Description:**  
Test Pit 8A Area.  
Fine silty loam as well  
as small rocks, likely  
from potato  
processing.

**Photo By:**  
DSH



**FORMER BIRDSEYE FACILITY  
CARIBOU, MAINE**



**Photo No. 5**

**Photo Date:**  
2020.08.05

**Site Location:**  
Former Birdseye  
Facility, Caribou,  
Maine

**Description:**  
Test Pit 8G.  
Fine silty loam

**Photo By:**  
DSH



**Photo No. 6**

**Photo Date:**  
2020.08.05

**Site Location:**  
Former Birdseye  
Facility, Caribou,  
Maine

**Description:**  
Test Pit 8J.  
Fine silty loam

**Photo By:**  
DSH



**FORMER BIRDSEYE FACILITY  
CARIBOU, MAINE**



**Photo No. 7**

**Photo Date:**  
2020.08.05

**Site Location:**  
Former Birdseye  
Facility, Caribou,  
Maine

**Description:**  
Test Pit 8L.  
Fine silty loam.

**Photo By:**  
DSH




**Photo No. 8**

**Photo Date:**  
2020.08.05

**Site Location:**  
Former Birdseye  
Facility, Caribou,  
Maine

**Description:**  
Test Pit 8N.  
Fine silty loam with  
gray soils at approx. 6  
feet bgs. Sample  
taken.

**Photo By:**  
DSH



**FORMER BIRDSEYE FACILITY  
CARIBOU, MAINE**



**Photo No. 9**

**Photo Date:**  
2020.08.05

**Site Location:**  
Former Birdseye  
Facility, Caribou,  
Maine

**Description:**  
Test Pit 8R.  
Excavated to 12 feet  
bgs to ensure no  
waste disposal in this  
easterly direction.  
Gray soils at likely  
confining layer.

**Photo By:**  
DSH



**Photo No. 10**

**Photo Date:**  
2020.08.05

**Site Location:**  
Former Birdseye  
Facility, Caribou,  
Maine

**Description:**  
Building demolition  
rubble pile, east of  
test pit 7B.

**Photo By:**  
DSH



**ATTACHMENT 4**

**LABORATORY RESULTS SUMMARY TABLE**

**LABORATORY ANALYTICAL RESULTS  
SOIL SAMPLES**

	TP-7A	TP-7N	TP-7S	TP-8N	TP-8S	COMMERCIAL WORKER*	PARK USER*	LEACHING TO GROUNDWATER*	RESIDENTIAL*
<b>SVOC</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
Acenaphthene	ND	0.31	0.30	ND	0.09	62,000	14,000	300	4,900
Fluoranthene	0.01	6.40	6.70	ND	3.40	41,000	9,300	4,900	3,300
Benzo(a)anthracene	0.01	2.60	2.90	ND	1.40	280	45	5.8	16
Benzo(a)pyrene	0.01	<b>2.60</b>	<b>2.90</b>	ND	1.50	29	4.5	16	1.6
Benzo(b)fluoranthene	0.01	3.00	3.40	ND	1.70	290	45	170	16
Benzo(k)fluoranthene	ND	1.00	1.10	ND	0.57	2,900	450	1,600	160
Chrysene	ND	2.40	2.60	ND	1.30	29,000	4,500	5,000	1,600
Acenaphthylene	ND	0.32	0.27	ND	0.09	45,000	14,000	290	4,900
Anthracene	ND	1.10	1.10	ND	0.35	100,000	70,000	3,200	25,000
Benzo(ghi)perylene	ND	1.50	1.70	ND	0.82	23,000	7,000	130,000	2,500
Fluorene	ND	0.45	0.45	ND	0.01	41,000	9,300	300	3,300
Phenanthrene	ND	3.70	4.00	ND	1.40	23,000	7,000	320	2,500
Dibenzo(a,h)anthracene	ND	0.30	0.35	ND	0.17	29	4.5	53	1.6
Indeno(1,2,3-cd)Pyrene	ND	1.50	1.80	ND	0.86	290	45	540	16
Pyrene	0.01	5.50	5.80	ND	3.00	31,000	7,000	720	2,500
Bis(2-Ethylhexyl)phthalate	ND	ND	0.29	ND	ND	2,200	1,500	730	530
All other SVOC Compounds	ND	ND	ND	ND	ND	-	-	-	-
<b>VOC</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
All VOC Compounds	NA	NA	NA	NA	ND	-	-	-	-

Notes:

ND = Not detected above the laboratory method detection limit

NA = Not analyzed

mg/kg = milligrams per kilogram

\* = Maine Remedial Action Guidelines (RAGs) for Sites Contaminated with Hazardous Substance (RAG - MDEP, 2018)

**ATTACHMENT 5**  
**LABORATORY RESULTS**



## ANALYTICAL REPORT

Lab Number:	L2032832
Client:	CES, Inc. 549 Main Street PO Box 827 Presque Isle, ME 04769
ATTN:	David Hopkins
Phone:	(207) 764-8412
Project Name:	BIRSDEYE
Project Number:	10963
Report Date:	08/20/20

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

Certifications & Approvals: MA (M-MA086), 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).

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



**Project Name:** BIRSDEYE  
**Project Number:** 10963

**Lab Number:** L2032832  
**Report Date:** 08/20/20

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2032832-01	BIRDSEYE 7N	SOIL	CARIBOU, ME	08/13/20 09:10	08/13/20
L2032832-02	BIRDSEYE 7S	SOIL	CARIBOU, ME	08/13/20 09:15	08/13/20

**Project Name:** BIRSDEYE  
**Project Number:** 10963

**Lab Number:** L2032832  
**Report Date:** 08/20/20

### 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.

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**Project Name:** BIRSDEYE  
**Project Number:** 10963

**Lab Number:** L2032832  
**Report Date:** 08/20/20

### Case Narrative (continued)

#### Semivolatile Organics

L2032832-01: The sample has elevated detection limits due to the dilution required by the sample matrix.

#### Semivolatile Organics by SIM

L2032832-01 and -02: The sample has elevated detection limits due to the dilution required by the sample matrix.

L2032832-01 and -02: The surrogate recoveries are below the acceptance criteria for 2-fluorophenol (0%), phenol-d6 (0%), nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%), 2,4,6-tribromophenol (0%), and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

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 Stenstrom

Title: Technical Director/Representative

Date: 08/20/20

## QC OUTLIER SUMMARY REPORT

**Project Name:** BIRSDEYE

**Project Number:** 10963

**Lab Number:** L2032832

**Report Date:** 08/20/20

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
Semivolatile Organics by GC/MS - Westborough Lab								
8270D	Batch QC	WG1399087-2	Hexachlorocyclopentadiene	LCS	34	40-140	01-02	potential low bias
8270D	Batch QC	WG1399087-3	Hexachlorocyclopentadiene	LCSD	37	40-140	01-02	potential low bias
Semivolatile Organics by GC/MS-SIM - Westborough Lab								
8270D-SIM	BIRDSEYE 7N	L2032832-01 D	2-Fluorophenol	Surrogate	0	25-120	-	-- not applicable --
8270D-SIM	BIRDSEYE 7N	L2032832-01 D	Phenol-d6	Surrogate	0	10-120	-	-- not applicable --
8270D-SIM	BIRDSEYE 7N	L2032832-01 D	Nitrobenzene-d5	Surrogate	0	23-120	-	-- not applicable --
8270D-SIM	BIRDSEYE 7N	L2032832-01 D	2-Fluorobiphenyl	Surrogate	0	30-120	-	-- not applicable --
8270D-SIM	BIRDSEYE 7N	L2032832-01 D	2,4,6-Tribromophenol	Surrogate	0	10-136	-	-- not applicable --
8270D-SIM	BIRDSEYE 7N	L2032832-01 D	4-Terphenyl-d14	Surrogate	0	18-120	-	-- not applicable --
8270D-SIM	BIRDSEYE 7S	L2032832-02 D	2-Fluorophenol	Surrogate	0	25-120	-	-- not applicable --
8270D-SIM	BIRDSEYE 7S	L2032832-02 D	Phenol-d6	Surrogate	0	10-120	-	-- not applicable --
8270D-SIM	BIRDSEYE 7S	L2032832-02 D	Nitrobenzene-d5	Surrogate	0	23-120	-	-- not applicable --
8270D-SIM	BIRDSEYE 7S	L2032832-02 D	2-Fluorobiphenyl	Surrogate	0	30-120	-	-- not applicable --
8270D-SIM	BIRDSEYE 7S	L2032832-02 D	2,4,6-Tribromophenol	Surrogate	0	10-136	-	-- not applicable --
8270D-SIM	BIRDSEYE 7S	L2032832-02 D	4-Terphenyl-d14	Surrogate	0	18-120	-	-- not applicable --

# ORGANICS

# SEMIVOLATILES

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

## SAMPLE RESULTS

Lab ID: L2032832-01 D  
 Client ID: BIRDSEYE 7N  
 Sample Location: CARIBOU, ME

Date Collected: 08/13/20 09:10  
 Date Received: 08/13/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 08/16/20 05:18  
 Analyst: JG  
 Percent Solids: 89%

Extraction Method: EPA 3546  
 Extraction Date: 08/14/20 20:28

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Benzidine	ND		ug/kg	6200	--	10
1,2,4-Trichlorobenzene	ND		ug/kg	1900	--	10
Bis(2-chloroethyl)ether	ND		ug/kg	1700	--	10
1,2-Dichlorobenzene	ND		ug/kg	1900	--	10
1,3-Dichlorobenzene	ND		ug/kg	1900	--	10
1,4-Dichlorobenzene	ND		ug/kg	1900	--	10
3,3'-Dichlorobenzidine	ND		ug/kg	1900	--	10
2,4-Dinitrotoluene	ND		ug/kg	1900	--	10
2,6-Dinitrotoluene	ND		ug/kg	1900	--	10
Azobenzene	ND		ug/kg	1900	--	10
4-Chlorophenyl phenyl ether	ND		ug/kg	1900	--	10
4-Bromophenyl phenyl ether	ND		ug/kg	1900	--	10
Bis(2-chloroisopropyl)ether	ND		ug/kg	2200	--	10
Bis(2-chloroethoxy)methane	ND		ug/kg	2000	--	10
Hexachlorocyclopentadiene	ND		ug/kg	5300	--	10
Isophorone	ND		ug/kg	1700	--	10
Nitrobenzene	ND		ug/kg	1700	--	10
NDPA/DPA	ND		ug/kg	1500	--	10
n-Nitrosodi-n-propylamine	ND		ug/kg	1900	--	10
Bis(2-ethylhexyl)phthalate	ND		ug/kg	1900	--	10
Butyl benzyl phthalate	ND		ug/kg	1900	--	10
Di-n-butylphthalate	ND		ug/kg	1900	--	10
Di-n-octylphthalate	ND		ug/kg	1900	--	10
Diethyl phthalate	ND		ug/kg	1900	--	10
Dimethyl phthalate	ND		ug/kg	1900	--	10
Biphenyl	ND		ug/kg	4200	--	10
Aniline	ND		ug/kg	2200	--	10
4-Chloroaniline	ND		ug/kg	1900	--	10

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

## SAMPLE RESULTS

Lab ID: L2032832-01 D

Date Collected: 08/13/20 09:10

Client ID: BIRDSEYE 7N

Date Received: 08/13/20

Sample Location: CARIBOU, ME

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2-Nitroaniline	ND		ug/kg	1900	--	10
3-Nitroaniline	ND		ug/kg	1900	--	10
4-Nitroaniline	ND		ug/kg	1900	--	10
Dibenzofuran	ND		ug/kg	1900	--	10
n-Nitrosodimethylamine	ND		ug/kg	3700	--	10
2,4,6-Trichlorophenol	ND		ug/kg	1100	--	10
p-Chloro-m-cresol	ND		ug/kg	1900	--	10
2-Chlorophenol	ND		ug/kg	1900	--	10
2,4-Dichlorophenol	ND		ug/kg	1700	--	10
2,4-Dimethylphenol	ND		ug/kg	1900	--	10
2-Nitrophenol	ND		ug/kg	4000	--	10
4-Nitrophenol	ND		ug/kg	2600	--	10
2,4-Dinitrophenol	ND		ug/kg	8900	--	10
4,6-Dinitro-o-cresol	ND		ug/kg	4800	--	10
Phenol	ND		ug/kg	1900	--	10
2-Methylphenol	ND		ug/kg	1900	--	10
3-Methylphenol/4-Methylphenol	ND		ug/kg	2700	--	10
2,4,5-Trichlorophenol	ND		ug/kg	1900	--	10
Benzoic Acid	ND		ug/kg	6000	--	10
Benzyl Alcohol	ND		ug/kg	1900	--	10
Carbazole	ND		ug/kg	1900	--	10
Pyridine	ND		ug/kg	2000	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	70		30-120
2,4,6-Tribromophenol	79		10-136
4-Terphenyl-d14	79		18-120

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

## SAMPLE RESULTS

Lab ID: L2032832-01 D

Date Collected: 08/13/20 09:10

Client ID: BIRDSEYE 7N

Date Received: 08/13/20

Sample Location: CARIBOU, ME

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270D-SIM

Extraction Date: 08/14/20 21:45

Analytical Date: 08/20/20 13:57

Analyst: RP

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	310		ug/kg	180	--	25
2-Chloronaphthalene	ND		ug/kg	180	--	25
Fluoranthene	6400		ug/kg	180	--	25
Hexachlorobutadiene	ND		ug/kg	180	--	25
Naphthalene	ND		ug/kg	180	--	25
Benzo(a)anthracene	2600		ug/kg	180	--	25
Benzo(a)pyrene	2600		ug/kg	180	--	25
Benzo(b)fluoranthene	3000		ug/kg	180	--	25
Benzo(k)fluoranthene	1000		ug/kg	180	--	25
Chrysene	2400		ug/kg	180	--	25
Acenaphthylene	320		ug/kg	180	--	25
Anthracene	1100		ug/kg	180	--	25
Benzo(ghi)perylene	1500		ug/kg	180	--	25
Fluorene	450		ug/kg	180	--	25
Phenanthrene	3700		ug/kg	180	--	25
Dibenzo(a,h)anthracene	300		ug/kg	180	--	25
Indeno(1,2,3-cd)Pyrene	1500		ug/kg	180	--	25
Pyrene	5500		ug/kg	180	--	25
1-Methylnaphthalene	ND		ug/kg	180	--	25
2-Methylnaphthalene	ND		ug/kg	180	--	25
Pentachlorophenol	ND		ug/kg	740	--	25
Hexachlorobenzene	ND		ug/kg	180	--	25
Hexachloroethane	ND		ug/kg	180	--	25

**Project Name:** BIRSDEYE**Lab Number:** L2032832**Project Number:** 10963**Report Date:** 08/20/20**SAMPLE RESULTS**

Lab ID: L2032832-01 D

Date Collected: 08/13/20 09:10

Client ID: BIRDSEYE 7N

Date Received: 08/13/20

Sample Location: CARIBOU, ME

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	0	Q	25-120
Phenol-d6	0	Q	10-120
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	30-120
2,4,6-Tribromophenol	0	Q	10-136
4-Terphenyl-d14	0	Q	18-120

**Project Name:** BIRSDEYE  
**Project Number:** 10963

**Lab Number:** L2032832  
**Report Date:** 08/20/20

**SAMPLE RESULTS**

Lab ID: L2032832-02  
 Client ID: BIRDSEYE 7S  
 Sample Location: CARIBOU, ME

Date Collected: 08/13/20 09:15  
 Date Received: 08/13/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 08/16/20 05:40  
 Analyst: JG  
 Percent Solids: 97%

Extraction Method: EPA 3546  
 Extraction Date: 08/14/20 20:28

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Benzidine	ND		ug/kg	570	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	--	1
1,2-Dichlorobenzene	ND		ug/kg	170	--	1
1,3-Dichlorobenzene	ND		ug/kg	170	--	1
1,4-Dichlorobenzene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Azobenzene	ND		ug/kg	170	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--	1
Hexachlorocyclopentadiene	ND		ug/kg	490	--	1
Isophorone	ND		ug/kg	150	--	1
Nitrobenzene	ND		ug/kg	150	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--	1
Bis(2-ethylhexyl)phthalate	290		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Biphenyl	ND		ug/kg	390	--	1
Aniline	ND		ug/kg	200	--	1
4-Chloroaniline	ND		ug/kg	170	--	1

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

## SAMPLE RESULTS

Lab ID: L2032832-02  
 Client ID: BIRDSEYE 7S  
 Sample Location: CARIBOU, ME

Date Collected: 08/13/20 09:15  
 Date Received: 08/13/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2-Nitroaniline	ND		ug/kg	170	--	1
3-Nitroaniline	ND		ug/kg	170	--	1
4-Nitroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
n-Nitrosodimethylamine	ND		ug/kg	340	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	170	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	150	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	370	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	820	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	--	1
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Benzoic Acid	ND		ug/kg	560	--	1
Benzyl Alcohol	ND		ug/kg	170	--	1
Carbazole	ND		ug/kg	170	--	1
Pyridine	ND		ug/kg	180	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	71		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	67		30-120
2,4,6-Tribromophenol	73		10-136
4-Terphenyl-d14	64		18-120

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

## SAMPLE RESULTS

Lab ID: L2032832-02 D  
 Client ID: BIRDSEYE 7S  
 Sample Location: CARIBOU, ME

Date Collected: 08/13/20 09:15  
 Date Received: 08/13/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 08/20/20 14:14  
 Analyst: RP  
 Percent Solids: 97%

Extraction Method: EPA 3546  
 Extraction Date: 08/14/20 21:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	300		ug/kg	170	--	25
2-Chloronaphthalene	ND		ug/kg	170	--	25
Fluoranthene	6700		ug/kg	170	--	25
Hexachlorobutadiene	ND		ug/kg	170	--	25
Naphthalene	ND		ug/kg	170	--	25
Benzo(a)anthracene	2900		ug/kg	170	--	25
Benzo(a)pyrene	2900		ug/kg	170	--	25
Benzo(b)fluoranthene	3400		ug/kg	170	--	25
Benzo(k)fluoranthene	1100		ug/kg	170	--	25
Chrysene	2600		ug/kg	170	--	25
Acenaphthylene	270		ug/kg	170	--	25
Anthracene	1100		ug/kg	170	--	25
Benzo(ghi)perylene	1700		ug/kg	170	--	25
Fluorene	450		ug/kg	170	--	25
Phenanthrene	4000		ug/kg	170	--	25
Dibenzo(a,h)anthracene	350		ug/kg	170	--	25
Indeno(1,2,3-cd)Pyrene	1800		ug/kg	170	--	25
Pyrene	5800		ug/kg	170	--	25
1-Methylnaphthalene	ND		ug/kg	170	--	25
2-Methylnaphthalene	ND		ug/kg	170	--	25
Pentachlorophenol	ND		ug/kg	680	--	25
Hexachlorobenzene	ND		ug/kg	170	--	25
Hexachloroethane	ND		ug/kg	170	--	25

**Project Name:** BIRSDEYE**Lab Number:** L2032832**Project Number:** 10963**Report Date:** 08/20/20**SAMPLE RESULTS**

Lab ID: L2032832-02 D

Date Collected: 08/13/20 09:15

Client ID: BIRDSEYE 7S

Date Received: 08/13/20

Sample Location: CARIBOU, ME

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	0	Q	25-120
Phenol-d6	0	Q	10-120
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	30-120
2,4,6-Tribromophenol	0	Q	10-136
4-Terphenyl-d14	0	Q	18-120

**Project Name:** BIRSDEYE  
**Project Number:** 10963

**Lab Number:** L2032832  
**Report Date:** 08/20/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D-SIM  
Analytical Date: 08/15/20 11:55  
Analyst: JJW

Extraction Method: EPA 3546  
Extraction Date: 08/14/20 14:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1398985-1					
Acenaphthene	ND		ug/kg	6.5	--
2-Chloronaphthalene	ND		ug/kg	6.5	--
Fluoranthene	ND		ug/kg	6.5	--
Hexachlorobutadiene	ND		ug/kg	6.5	--
Naphthalene	ND		ug/kg	6.5	--
Benzo(a)anthracene	ND		ug/kg	6.5	--
Benzo(a)pyrene	ND		ug/kg	6.5	--
Benzo(b)fluoranthene	ND		ug/kg	6.5	--
Benzo(k)fluoranthene	ND		ug/kg	6.5	--
Chrysene	ND		ug/kg	6.5	--
Acenaphthylene	ND		ug/kg	6.5	--
Anthracene	ND		ug/kg	6.5	--
Benzo(ghi)perylene	ND		ug/kg	6.5	--
Fluorene	ND		ug/kg	6.5	--
Phenanthrene	ND		ug/kg	6.5	--
Dibenzo(a,h)anthracene	ND		ug/kg	6.5	--
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	6.5	--
Pyrene	ND		ug/kg	6.5	--
1-Methylnaphthalene	ND		ug/kg	6.5	--
2-Methylnaphthalene	ND		ug/kg	6.5	--
Pentachlorophenol	ND		ug/kg	26	--
Hexachlorobenzene	ND		ug/kg	6.5	--
Hexachloroethane	ND		ug/kg	6.5	--

**Project Name:** BIRSDEYE**Lab Number:** L2032832**Project Number:** 10963**Report Date:** 08/20/20**Method Blank Analysis  
Batch Quality Control**Analytical Method: 1,8270D-SIM  
Analytical Date: 08/15/20 11:55  
Analyst: JJWExtraction Method: EPA 3546  
Extraction Date: 08/14/20 14:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1398985-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		25-120
Phenol-d6	61		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	55		30-120
2,4,6-Tribromophenol	58		10-136
4-Terphenyl-d14	49		18-120

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 08/16/20 04:11  
 Analyst: JG

Extraction Method: EPA 3546  
 Extraction Date: 08/14/20 20:28

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1399087-1					
Acenaphthene	ND		ug/kg	130	--
Benzidine	ND		ug/kg	540	--
1,2,4-Trichlorobenzene	ND		ug/kg	160	--
Hexachlorobenzene	ND		ug/kg	99	--
Bis(2-chloroethyl)ether	ND		ug/kg	150	--
2-Chloronaphthalene	ND		ug/kg	160	--
1,2-Dichlorobenzene	ND		ug/kg	160	--
1,3-Dichlorobenzene	ND		ug/kg	160	--
1,4-Dichlorobenzene	ND		ug/kg	160	--
3,3'-Dichlorobenzidine	ND		ug/kg	160	--
2,4-Dinitrotoluene	ND		ug/kg	160	--
2,6-Dinitrotoluene	ND		ug/kg	160	--
Azobenzene	ND		ug/kg	160	--
Fluoranthene	ND		ug/kg	99	--
4-Chlorophenyl phenyl ether	ND		ug/kg	160	--
4-Bromophenyl phenyl ether	ND		ug/kg	160	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--
Hexachlorobutadiene	ND		ug/kg	160	--
Hexachlorocyclopentadiene	ND		ug/kg	470	--
Hexachloroethane	ND		ug/kg	130	--
Isophorone	ND		ug/kg	150	--
Naphthalene	ND		ug/kg	160	--
Nitrobenzene	ND		ug/kg	150	--
NDPA/DPA	ND		ug/kg	130	--
n-Nitrosodi-n-propylamine	ND		ug/kg	160	--
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	--
Butyl benzyl phthalate	ND		ug/kg	160	--
Di-n-butylphthalate	ND		ug/kg	160	--

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 08/16/20 04:11  
 Analyst: JG

Extraction Method: EPA 3546  
 Extraction Date: 08/14/20 20:28

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1399087-1					
Di-n-octylphthalate	ND		ug/kg	160	--
Diethyl phthalate	ND		ug/kg	160	--
Dimethyl phthalate	ND		ug/kg	160	--
Benzo(a)anthracene	ND		ug/kg	99	--
Benzo(a)pyrene	ND		ug/kg	130	--
Benzo(b)fluoranthene	ND		ug/kg	99	--
Benzo(k)fluoranthene	ND		ug/kg	99	--
Chrysene	ND		ug/kg	99	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	99	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	160	--
Phenanthrene	ND		ug/kg	99	--
Dibenzo(a,h)anthracene	ND		ug/kg	99	--
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	99	--
Biphenyl	ND		ug/kg	380	--
Aniline	ND		ug/kg	200	--
4-Chloroaniline	ND		ug/kg	160	--
1-Methylnaphthalene	ND		ug/kg	160	--
2-Nitroaniline	ND		ug/kg	160	--
3-Nitroaniline	ND		ug/kg	160	--
4-Nitroaniline	ND		ug/kg	160	--
Dibenzofuran	ND		ug/kg	160	--
2-Methylnaphthalene	ND		ug/kg	200	--
n-Nitrosodimethylamine	ND		ug/kg	330	--
2,4,6-Trichlorophenol	ND		ug/kg	99	--
p-Chloro-m-cresol	ND		ug/kg	160	--
2-Chlorophenol	ND		ug/kg	160	--

**Project Name:** BIRSDEYE  
**Project Number:** 10963

**Lab Number:** L2032832  
**Report Date:** 08/20/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 08/16/20 04:11  
Analyst: JG

Extraction Method: EPA 3546  
Extraction Date: 08/14/20 20:28

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1399087-1					
2,4-Dichlorophenol	ND		ug/kg	150	--
2,4-Dimethylphenol	ND		ug/kg	160	--
2-Nitrophenol	ND		ug/kg	360	--
4-Nitrophenol	ND		ug/kg	230	--
2,4-Dinitrophenol	ND		ug/kg	790	--
4,6-Dinitro-o-cresol	ND		ug/kg	430	--
Pentachlorophenol	ND		ug/kg	130	--
Phenol	ND		ug/kg	160	--
2-Methylphenol	ND		ug/kg	160	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--
2,4,5-Trichlorophenol	ND		ug/kg	160	--
Benzoic Acid	ND		ug/kg	540	--
Benzyl Alcohol	ND		ug/kg	160	--
Carbazole	ND		ug/kg	160	--
Pyridine	ND		ug/kg	180	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		25-120
Phenol-d6	73		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	63		30-120
2,4,6-Tribromophenol	73		10-136
4-Terphenyl-d14	67		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1398985-2 WG1398985-3								
Acenaphthene	53		60		40-140	12		50
2-Chloronaphthalene	53		61		40-140	14		50
Fluoranthene	50		57		40-140	13		50
Hexachlorobutadiene	54		62		34-107	14		50
Naphthalene	51		59		40-140	15		50
Benzo(a)anthracene	50		57		40-140	13		50
Benzo(a)pyrene	54		62		40-140	14		50
Benzo(b)fluoranthene	52		58		40-140	11		50
Benzo(k)fluoranthene	58		69		40-140	17		50
Chrysene	54		62		40-140	14		50
Acenaphthylene	54		62		40-140	14		50
Anthracene	53		60		40-140	12		50
Benzo(ghi)perylene	51		58		40-140	13		50
Fluorene	53		61		40-140	14		50
Phenanthrene	49		57		40-140	15		50
Dibenzo(a,h)anthracene	52		60		40-140	14		50
Indeno(1,2,3-cd)Pyrene	52		60		40-140	14		50
Pyrene	50		57		35-142	13		50
1-Methylnaphthalene	55		64		40-140	15		50
2-Methylnaphthalene	52		60		40-140	14		50
Pentachlorophenol	58		62		17-109	7		50
Hexachlorobenzene	60		68		40-140	13		50
Hexachloroethane	57		65		29-106	13		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BIRSDEYE

Project Number: 10963

Lab Number: L2032832

Report Date: 08/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1398985-2 WG1398985-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	54		61		25-120
Phenol-d6	58		66		10-120
Nitrobenzene-d5	60		68		23-120
2-Fluorobiphenyl	53		60		30-120
2,4,6-Tribromophenol	56		63		10-136
4-Terphenyl-d14	45		51		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1399087-2 WG1399087-3								
Acenaphthene	72		77		31-137	7		50
Benidine	20		12		10-66	50		50
1,2,4-Trichlorobenzene	59		64		38-107	8		50
Hexachlorobenzene	73		73		40-140	0		50
Bis(2-chloroethyl)ether	67		70		40-140	4		50
2-Chloronaphthalene	66		67		40-140	2		50
1,2-Dichlorobenzene	61		66		40-140	8		50
1,3-Dichlorobenzene	61		65		40-140	6		50
1,4-Dichlorobenzene	61		64		28-104	5		50
3,3'-Dichlorobenzidine	75		70		40-140	7		50
2,4-Dinitrotoluene	74		73		40-132	1		50
2,6-Dinitrotoluene	71		71		40-140	0		50
Azobenzene	82		83		40-140	1		50
Fluoranthene	73		75		40-140	3		50
4-Chlorophenyl phenyl ether	69		70		40-140	1		50
4-Bromophenyl phenyl ether	69		70		40-140	1		50
Bis(2-chloroisopropyl)ether	86		91		40-140	6		50
Bis(2-chloroethoxy)methane	69		70		40-117	1		50
Hexachlorobutadiene	62		67		40-140	8		50
Hexachlorocyclopentadiene	34	Q	37	Q	40-140	8		50
Hexachloroethane	63		66		40-140	5		50
Isophorone	76		77		40-140	1		50
Naphthalene	65		69		40-140	6		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1399087-2 WG1399087-3								
Nitrobenzene	70		75		40-140	7		50
NDPA/DPA	72		73		36-157	1		50
n-Nitrosodi-n-propylamine	77		78		32-121	1		50
Bis(2-ethylhexyl)phthalate	76		77		40-140	1		50
Butyl benzyl phthalate	79		80		40-140	1		50
Di-n-butylphthalate	78		79		40-140	1		50
Di-n-octylphthalate	75		77		40-140	3		50
Diethyl phthalate	73		74		40-140	1		50
Dimethyl phthalate	68		70		40-140	3		50
Benzo(a)anthracene	70		72		40-140	3		50
Benzo(a)pyrene	71		74		40-140	4		50
Benzo(b)fluoranthene	75		79		40-140	5		50
Benzo(k)fluoranthene	67		69		40-140	3		50
Chrysene	71		75		40-140	5		50
Acenaphthylene	75		77		40-140	3		50
Anthracene	76		78		40-140	3		50
Benzo(ghi)perylene	78		82		40-140	5		50
Fluorene	72		74		40-140	3		50
Phenanthrene	73		76		40-140	4		50
Dibenzo(a,h)anthracene	76		80		40-140	5		50
Indeno(1,2,3-cd)pyrene	72		78		40-140	8		50
Pyrene	77		78		35-142	1		50
Biphenyl	72		76		37-127	5		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1399087-2 WG1399087-3								
Aniline	64		60		40-140	6		50
4-Chloroaniline	68		67		40-140	1		50
1-Methylnaphthalene	66		68		26-130	3		50
2-Nitroaniline	70		75		47-134	7		50
3-Nitroaniline	72		71		26-129	1		50
4-Nitroaniline	70		72		41-125	3		50
Dibenzofuran	72		74		40-140	3		50
2-Methylnaphthalene	66		69		40-140	4		50
n-Nitrosodimethylamine	68		69		22-100	1		50
2,4,6-Trichlorophenol	71		70		30-130	1		50
p-Chloro-m-cresol	77		78		26-103	1		50
2-Chlorophenol	68		73		25-102	7		50
2,4-Dichlorophenol	69		72		30-130	4		50
2,4-Dimethylphenol	78		82		30-130	5		50
2-Nitrophenol	66		69		30-130	4		50
4-Nitrophenol	84		89		11-114	6		50
2,4-Dinitrophenol	60		67		4-130	11		50
4,6-Dinitro-o-cresol	68		69		10-130	1		50
Pentachlorophenol	58		61		17-109	5		50
Phenol	70		72		26-90	3		50
2-Methylphenol	76		78		30-130.	3		50
3-Methylphenol/4-Methylphenol	81		82		30-130	1		50
2,4,5-Trichlorophenol	70		71		30-130	1		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BIRSDEYE

Project Number: 10963

Lab Number: L2032832

Report Date: 08/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1399087-2 WG1399087-3								
Benzoic Acid	56		69		10-110	21		50
Benzyl Alcohol	76		79		40-140	4		50
Carbazole	76		79		54-128	4		50
Pyridine	44		47		10-93	7		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	74		75		25-120
Phenol-d6	76		79		10-120
Nitrobenzene-d5	73		76		23-120
2-Fluorobiphenyl	66		68		30-120
2,4,6-Tribromophenol	79		80		10-136
4-Terphenyl-d14	72		72		18-120

# **INORGANICS & MISCELLANEOUS**

Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

## SAMPLE RESULTS

Lab ID: L2032832-01

Date Collected: 08/13/20 09:10

Client ID: BIRDSEYE 7N

Date Received: 08/13/20

Sample Location: CARIBOU, ME

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.0		%	0.100	NA	1	-	08/14/20 09:25	121,2540G	RI



Project Name: BIRSDEYE

Lab Number: L2032832

Project Number: 10963

Report Date: 08/20/20

## SAMPLE RESULTS

Lab ID: L2032832-02

Date Collected: 08/13/20 09:15

Client ID: BIRDSEYE 7S

Date Received: 08/13/20

Sample Location: CARIBOU, ME

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.7		%	0.100	NA	1	-	08/14/20 09:25	121,2540G	RI



## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: BIRSDEYE

Project Number: 10963

Lab Number: L2032832

Report Date: 08/20/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1398808-1 QC Sample: L2032832-01 Client ID: BIRDSEYE 7N						
Solids, Total	89.0	88.9	%	0		20

**Project Name:** BIRSDEYE

**Project Number:** 10963

Serial\_No:08202018:17

**Lab Number:** L2032832

**Report Date:** 08/20/20

**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**

L2032832-01A    Glass 120ml/4oz unpreserved

L2032832-02A    Glass 120ml/4oz unpreserved

<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
B	NA		4.0	Y	Absent		8270TCL(14),8270TCL-SIM(14),ME-TS-2540(7)
B	NA		4.0	Y	Absent		8270TCL(14),8270TCL-SIM(14),ME-TS-2540(7)

**Project Name:** BIRSDEYE  
**Project Number:** 10963

**Lab Number:** L2032832  
**Report Date:** 08/20/20

## 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.
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.

### Footnotes

Report Format: Data Usability Report



**Project Name:** BIRSDEYE**Lab Number:** L2032832**Project Number:** 10963**Report Date:** 08/20/20

- 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.

**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'.

**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. If a 'Total' result is requested, the results of its individual components will also be reported.

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.)

**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.
- 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

Report Format: Data Usability Report



**Project Name:** BIRSDEYE  
**Project Number:** 10963

**Lab Number:** L2032832  
**Report Date:** 08/20/20

**Data Qualifiers**

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.

**Project Name:** BIRSDEYE

**Lab Number:** L2032832

**Project Number:** 10963

**Report Date:** 08/20/20

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## 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

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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 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### 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.

**EPA TO-12** Non-methane organics

**EPA 3C** Fixed gases

**Biological Tissue Matrix:** EPA 3050B

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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, SM4500CI-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.**

### 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.**

#### 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**

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



# CHAIN OF CUSTODY

PAGE \_\_\_\_\_ OF \_\_\_\_\_

Date Rec'd in Lab: **8/13/20**

ALPHA Job #: **L2032832**

8 Walkup Drive  
Westboro, MA 01581  
Tel: 508-896-9220

320 Forbes Blvd  
Mansfield, MA 02048  
Tel: 508-822-9300

### Project Information

Project Name: **Birdseye**

Project Location: **Carbra ME**

Project #: **10963**

Project Manager: **DA**

ALPHA Quote #:

### Report Information - Data Deliverables

ADEx  EMAIL

### Billing Information

Same as Client info PO #:

### Client Information

Client: **CES**

Address: **465 Main St  
Brewer, ME 04412**

Phone: **207 969 4824**

Email: **dhopkins@cesincusa.com**

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)

Date Due:

### Regulatory Requirements & Project Information Requirements

Yes  No MA MCP Analytical Methods  Yes  No CT RCP Analytical Methods

Yes  No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

Yes  No GW1 Standards (Info Required for Metals & EPH with Targets)

Yes  No NPDES RGP

Other State /Fed Program \_\_\_\_\_ Criteria \_\_\_\_\_

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
32832-01	Birdseye 7N	8/13	9:10	Soil	DA
-02	Birdseye 7S	8/13	9:15	Soil	DA

- 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<sub>3</sub>
  - D= H<sub>2</sub>SO<sub>4</sub>
  - E= NaOH
  - F= MeOH
  - G= NaHSO<sub>4</sub>
  - H = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>
  - I= Ascorbic Acid
  - J = NH<sub>4</sub>Cl
  - K= Zn Acetate
  - O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i>	8/13/20 12:02	<i>[Signature]</i>	8/13/20 15:40
Rob Meeks	8/13/20 2:15	Rob Meeks	8/13/20 15:40

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

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



## ANALYTICAL REPORT

Lab Number:	L2033981
Client:	CES, Inc. 549 Main Street PO Box 827 Presque Isle, ME 04769
ATTN:	David Hopkins
Phone:	(207) 764-8412
Project Name:	BIRDSEYE
Project Number:	10963.005
Report Date:	08/24/20

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

Certifications & Approvals: MA (M-MA086), 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).

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



**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2033981-01	8S	SOIL	CARIBOU, ME	08/19/20 10:53	08/19/20

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

### 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:  Tiffani Morrissey

Title: Technical Director/Representative

Date: 08/24/20

**QC OUTLIER SUMMARY REPORT****Project Name:** BIRDSEYE**Lab Number:** L2033981**Project Number:** 10963.005**Report Date:** 08/24/20

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
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There are no QC Outliers associated with this report.

# ORGANICS

# VOLATILES

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

**SAMPLE RESULTS**

Lab ID: L2033981-01  
 Client ID: 8S  
 Sample Location: CARIBOU, ME

Date Collected: 08/19/20 10:53  
 Date Received: 08/19/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 08/22/20 15:57  
 Analyst: AD  
 Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	8.2	--	1
1,1-Dichloroethane	ND		ug/kg	1.6	--	1
Chloroform	ND		ug/kg	2.5	--	1
Carbon tetrachloride	ND		ug/kg	1.6	--	1
1,2-Dichloropropane	ND		ug/kg	1.6	--	1
Dibromochloromethane	ND		ug/kg	1.6	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	--	1
Tetrachloroethene	ND		ug/kg	0.82	--	1
Chlorobenzene	ND		ug/kg	0.82	--	1
Trichlorofluoromethane	ND		ug/kg	6.6	--	1
1,2-Dichloroethane	ND		ug/kg	1.6	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.82	--	1
Bromodichloromethane	ND		ug/kg	0.82	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.6	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.82	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.82	--	1
1,1-Dichloropropene	ND		ug/kg	0.82	--	1
Bromoform	ND		ug/kg	6.6	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.82	--	1
Benzene	ND		ug/kg	0.82	--	1
Toluene	ND		ug/kg	1.6	--	1
Ethylbenzene	ND		ug/kg	1.6	--	1
Chloromethane	ND		ug/kg	6.6	--	1
Bromomethane	ND		ug/kg	3.3	--	1
Vinyl chloride	ND		ug/kg	1.6	--	1
Chloroethane	ND		ug/kg	3.3	--	1
1,1-Dichloroethene	ND		ug/kg	1.6	--	1
trans-1,2-Dichloroethene	ND		ug/kg	2.5	--	1

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

**SAMPLE RESULTS**

**Lab ID:** L2033981-01  
**Client ID:** 8S  
**Sample Location:** CARIBOU, ME

**Date Collected:** 08/19/20 10:53  
**Date Received:** 08/19/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.82	--	1
1,2-Dichlorobenzene	ND		ug/kg	3.3	--	1
1,3-Dichlorobenzene	ND		ug/kg	3.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	3.3	--	1
Methyl tert butyl ether	ND		ug/kg	3.3	--	1
p/m-Xylene	ND		ug/kg	3.3	--	1
o-Xylene	ND		ug/kg	1.6	--	1
Xylenes, Total	ND		ug/kg	1.6	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.6	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.6	--	1
Dibromomethane	ND		ug/kg	3.3	--	1
1,4-Dichlorobutane	ND		ug/kg	16	--	1
1,2,3-Trichloropropane	ND		ug/kg	3.3	--	1
Styrene	ND		ug/kg	1.6	--	1
Dichlorodifluoromethane	ND		ug/kg	16	--	1
Acetone	ND		ug/kg	41	--	1
Carbon disulfide	ND		ug/kg	16	--	1
2-Butanone	ND		ug/kg	16	--	1
Vinyl acetate	ND		ug/kg	16	--	1
4-Methyl-2-pentanone	ND		ug/kg	16	--	1
2-Hexanone	ND		ug/kg	16	--	1
Ethyl methacrylate	ND		ug/kg	16	--	1
Acrylonitrile	ND		ug/kg	6.6	--	1
Bromochloromethane	ND		ug/kg	3.3	--	1
Tetrahydrofuran	ND		ug/kg	6.6	--	1
2,2-Dichloropropane	ND		ug/kg	3.3	--	1
1,2-Dibromoethane	ND		ug/kg	1.6	--	1
1,3-Dichloropropane	ND		ug/kg	3.3	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.82	--	1
Bromobenzene	ND		ug/kg	3.3	--	1
n-Butylbenzene	ND		ug/kg	1.6	--	1
sec-Butylbenzene	ND		ug/kg	1.6	--	1
tert-Butylbenzene	ND		ug/kg	3.3	--	1
o-Chlorotoluene	ND		ug/kg	3.3	--	1
p-Chlorotoluene	ND		ug/kg	3.3	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.9	--	1
Hexachlorobutadiene	ND		ug/kg	6.6	--	1

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

**SAMPLE RESULTS**

**Lab ID:** L2033981-01  
**Client ID:** 8S  
**Sample Location:** CARIBOU, ME

**Date Collected:** 08/19/20 10:53  
**Date Received:** 08/19/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Isopropylbenzene	ND		ug/kg	1.6	--	1
p-Isopropyltoluene	ND		ug/kg	1.6	--	1
Naphthalene	ND		ug/kg	6.6	--	1
n-Propylbenzene	ND		ug/kg	1.6	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.3	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.3	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.3	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.2	--	1
Ethyl ether	ND		ug/kg	3.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	98		70-130

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 08/22/20 09:29  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1401989-5					
Methylene chloride	ND		ug/kg	5.0	--
1,1-Dichloroethane	ND		ug/kg	1.0	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	1.0	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.0	--
2-Chloroethylvinyl ether	ND		ug/kg	20	--
Tetrachloroethene	ND		ug/kg	0.50	--
Chlorobenzene	ND		ug/kg	0.50	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	0.50	--
Bromodichloromethane	ND		ug/kg	0.50	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	0.50	--
1,3-Dichloropropene, Total	ND		ug/kg	0.50	--
1,1-Dichloropropene	ND		ug/kg	0.50	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	--
Benzene	ND		ug/kg	0.50	--
Toluene	ND		ug/kg	1.0	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	1.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 08/22/20 09:29  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1401989-5					
Trichloroethene	ND		ug/kg	0.50	--
1,2-Dichlorobenzene	ND		ug/kg	2.0	--
1,3-Dichlorobenzene	ND		ug/kg	2.0	--
1,4-Dichlorobenzene	ND		ug/kg	2.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	1.0	--
Xylenes, Total	ND		ug/kg	1.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	2.0	--
1,4-Dichlorobutane	ND		ug/kg	10	--
1,2,3-Trichloropropane	ND		ug/kg	2.0	--
Styrene	ND		ug/kg	1.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	25	--
Carbon disulfide	ND		ug/kg	10	--
2-Butanone	ND		ug/kg	10	--
Vinyl acetate	ND		ug/kg	10	--
4-Methyl-2-pentanone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Ethyl methacrylate	ND		ug/kg	10	--
Acrolein	ND		ug/kg	25	--
Acrylonitrile	ND		ug/kg	4.0	--
Bromochloromethane	ND		ug/kg	2.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	2.0	--
1,2-Dibromoethane	ND		ug/kg	1.0	--
1,3-Dichloropropane	ND		ug/kg	2.0	--

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 08/22/20 09:29  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1401989-5					
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	--
Bromobenzene	ND		ug/kg	2.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	2.0	--
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	--
o-Chlorotoluene	ND		ug/kg	2.0	--
p-Chlorotoluene	ND		ug/kg	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	--
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	--
Ethyl ether	ND		ug/kg	2.0	--
Methyl Acetate	ND		ug/kg	4.0	--
Ethyl Acetate	ND		ug/kg	10	--
Isopropyl Ether	ND		ug/kg	2.0	--
Cyclohexane	ND		ug/kg	10	--
Tert-Butyl Alcohol	ND		ug/kg	20	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	--
1,4-Dioxane	ND		ug/kg	80	--
Methyl cyclohexane	ND		ug/kg	4.0	--

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 08/22/20 09:29  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1401989-5					
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	4.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	100		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1401989-3 WG1401989-4								
Methylene chloride	97		92		70-130	5		30
1,1-Dichloroethane	100		96		70-130	4		30
Chloroform	106		103		70-130	3		30
Carbon tetrachloride	118		114		70-130	3		30
1,2-Dichloropropane	95		95		70-130	0		30
Dibromochloromethane	103		101		70-130	2		30
1,1,2-Trichloroethane	93		90		70-130	3		30
2-Chloroethylvinyl ether	104		98		70-130	6		30
Tetrachloroethene	121		119		70-130	2		30
Chlorobenzene	96		96		70-130	0		30
Trichlorofluoromethane	128		120		70-139	6		30
1,2-Dichloroethane	103		100		70-130	3		30
1,1,1-Trichloroethane	113		110		70-130	3		30
Bromodichloromethane	100		99		70-130	1		30
trans-1,3-Dichloropropene	99		96		70-130	3		30
cis-1,3-Dichloropropene	102		102		70-130	0		30
1,1-Dichloropropene	107		104		70-130	3		30
Bromoform	108		103		70-130	5		30
1,1,1,2-Tetrachloroethane	85		82		70-130	4		30
Benzene	99		97		70-130	2		30
Toluene	99		97		70-130	2		30
Ethylbenzene	99		98		70-130	1		30
Chloromethane	92		81		52-130	13		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BIRDSEYE

Project Number: 10963.005

Lab Number: L2033981

Report Date: 08/24/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1401989-3 WG1401989-4								
Bromomethane	110		100		57-147	10		30
Vinyl chloride	106		96		67-130	10		30
Chloroethane	104		95		50-151	9		30
1,1-Dichloroethene	112		102		65-135	9		30
trans-1,2-Dichloroethene	107		100		70-130	7		30
Trichloroethene	98		97		70-130	1		30
1,2-Dichlorobenzene	95		95		70-130	0		30
1,3-Dichlorobenzene	97		97		70-130	0		30
1,4-Dichlorobenzene	95		95		70-130	0		30
Methyl tert butyl ether	102		98		66-130	4		30
p/m-Xylene	98		97		70-130	1		30
o-Xylene	96		96		70-130	0		30
cis-1,2-Dichloroethene	103		99		70-130	4		30
Dibromomethane	102		100		70-130	2		30
1,4-Dichlorobutane	78		76		70-130	3		30
1,2,3-Trichloropropane	86		83		68-130	4		30
Styrene	96		96		70-130	0		30
Dichlorodifluoromethane	110		98		30-146	12		30
Acetone	108		92		54-140	16		30
Carbon disulfide	98		91		59-130	7		30
2-Butanone	76		77		70-130	1		30
Vinyl acetate	90		86		70-130	5		30
4-Methyl-2-pentanone	87		84		70-130	4		30

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1401989-3 WG1401989-4								
2-Hexanone	86		80		70-130	7		30
Ethyl methacrylate	94		91		70-130	3		30
Acrolein	100		87		70-130	14		30
Acrylonitrile	90		78		70-130	14		30
Bromochloromethane	108		102		70-130	6		30
Tetrahydrofuran	92		90		66-130	2		30
2,2-Dichloropropane	108		102		70-130	6		30
1,2-Dibromoethane	102		100		70-130	2		30
1,3-Dichloropropane	97		96		69-130	1		30
1,1,1,2-Tetrachloroethane	99		98		70-130	1		30
Bromobenzene	103		101		70-130	2		30
n-Butylbenzene	94		94		70-130	0		30
sec-Butylbenzene	94		92		70-130	2		30
tert-Butylbenzene	94		92		70-130	2		30
1,3,5-Trichlorobenzene	112		113		70-139	1		30
o-Chlorotoluene	89		89		70-130	0		30
p-Chlorotoluene	89		88		70-130	1		30
1,2-Dibromo-3-chloropropane	101		99		68-130	2		30
Hexachlorobutadiene	103		106		67-130	3		30
Isopropylbenzene	94		93		70-130	1		30
p-Isopropyltoluene	94		92		70-130	2		30
Naphthalene	92		89		70-130	3		30
n-Propylbenzene	92		91		70-130	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BIRDSEYE

Lab Number: L2033981

Project Number: 10963.005

Report Date: 08/24/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1401989-3 WG1401989-4								
1,2,3-Trichlorobenzene	109		108		70-130	1		30
1,2,4-Trichlorobenzene	113		112		70-130	1		30
1,3,5-Trimethylbenzene	91		89		70-130	2		30
1,2,4-Trimethylbenzene	90		89		70-130	1		30
trans-1,4-Dichloro-2-butene	84		80		70-130	5		30
Ethyl ether	102		95		67-130	7		30
Methyl Acetate	87		79		65-130	10		30
Ethyl Acetate	88		87		70-130	1		30
Isopropyl Ether	88		84		66-130	5		30
Cyclohexane	106		101		70-130	5		30
Tert-Butyl Alcohol	103		90		70-130	13		30
Ethyl-Tert-Butyl-Ether	96		93		70-130	3		30
Tertiary-Amyl Methyl Ether	99		98		70-130	1		30
1,4-Dioxane	108		101		65-136	7		30
Methyl cyclohexane	110		108		70-130	2		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	130		120		70-130	8		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	97		97		70-130
Toluene-d8	98		97		70-130
4-Bromofluorobenzene	93		93		70-130
Dibromofluoromethane	104		102		70-130

# **INORGANICS & MISCELLANEOUS**

Project Name: BIRDSEYE

Lab Number: L2033981

Project Number: 10963.005

Report Date: 08/24/20

## SAMPLE RESULTS

Lab ID: L2033981-01

Date Collected: 08/19/20 10:53

Client ID: 8S

Date Received: 08/19/20

Sample Location: CARIBOU, ME

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.2		%	0.100	NA	1	-	08/20/20 09:36	121,2540G	RI



**Project Name:** BIRDSEYE**Lab Number:** L2033981**Project Number:** 10963.005**Report Date:** 08/24/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2033981-01A	Vial MeOH preserved	A	NA		4.4	Y	Absent		8260HLW(14)
L2033981-01B	Vial water preserved	A	NA		4.4	Y	Absent	20-AUG-20 00:33	8260HLW(14)
L2033981-01C	Vial water preserved	A	NA		4.4	Y	Absent	20-AUG-20 00:33	8260HLW(14)
L2033981-01D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		ME-TS-2540(7)

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

## 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.
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.

### Footnotes

Report Format: Data Usability Report



**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

- 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.

**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'.

**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. If a 'Total' result is requested, the results of its individual components will also be reported.

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.)

**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.
- 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

Report Format: Data Usability Report



**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

**Data Qualifiers**

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.

**Project Name:** BIRDSEYE  
**Project Number:** 10963.005

**Lab Number:** L2033981  
**Report Date:** 08/24/20

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## 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 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### 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.

**EPA TO-12** Non-methane organics

**EPA 3C** Fixed gases

**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, SM4500CI-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.**

### 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.**

#### 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.



# CHAIN OF CUSTODY

PAGE \_\_\_\_\_ OF \_\_\_\_\_

Date Rec'd in Lab: 8/19/20

ALPHA Job #: L2033981

8 Walkup Drive  
Westboro, MA 01581  
Tel: 508-898-9220

320 Forbes Blvd  
Mansfield, MA 02048  
Tel: 508-622-9300

### Project Information

Project Name: *Birdseye*

Project Location: *Caribou ME*

Project #: *10963.005*

Project Manager: *DH*

ALPHA Quote #:

### Report Information - Data Deliverables

ADEX  EMAIL

### Billing Information

Same as Client info PO #:

### Client Information

Client: *LES*

Address:

Phone: *227-3446*

Email: *shopkins@cesincusa.com*

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)

Date Due:

### Regulatory Requirements & Project Information Requirements

Yes  No MA MCP Analytical Methods  Yes  No CT RCP Analytical Methods

Yes  No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

Yes  No GW1 Standards (Info Required for Metals & EPH with Targets)

Yes  No NPDES RGP

Other State /Fed Program \_\_\_\_\_ Criteria \_\_\_\_\_

Additional Project Information:

ANALYSIS		TOTAL # BOTTLES
VOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SAMPLE INFO	
SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	Filtration	<input type="checkbox"/> Field <input type="checkbox"/> Lab to do  Preservation <input type="checkbox"/> Lab to do
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	<input type="checkbox"/> Field	
METALS: <input type="checkbox"/> RCRA8 <input type="checkbox"/> RCRA8	<input type="checkbox"/> Lab to do	
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	Preservation	
VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> Lab to do	
PCB <input type="checkbox"/> PEST		
TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		
	Sample Comments	

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
33961-0)	<i>85</i>	<i>8/19</i>			
	<i>87</i>		<i>10:50-53</i>	<i>S</i>	<i>DH</i> ✓
	<i>82</i>				

- 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<sub>3</sub>
  - D= H<sub>2</sub>SO<sub>4</sub>
  - E= NaOH
  - F= MeOH
  - G= NaHSO<sub>4</sub>
  - H= Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>
  - I= Ascorbic Acid
  - J= NH<sub>4</sub>Cl
  - K= Zn Acetate
  - O= Other

Container Type		Container Type	
Preservative		Preservative	
Relinquished By:	Date/Time	Received By:	Date/Time
<i>DH</i>	<i>8/19, 1pm</i>	<i>Alpha</i>	<i>1pm</i>
		<i>cur</i>	<i>8/19/20 1:30</i>

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



# EMSL Analytical, Inc.

161 John Roberts Road South Portland, ME 04106

Tel/Fax: (207) 517-6921 / (207) 517-6922

<http://www.EMSL.com> / [portlandlab@emsl.com](mailto:portlandlab@emsl.com)

<b>EMSL Order:</b> 622001141
<b>Customer ID:</b> CESI62
<b>Customer PO:</b>
<b>Project ID:</b>

<b>Attention:</b> Dave Hopkins CES/Summit Environmental Consultants PO Box 414 Easton, ME 04740	<b>Phone:</b> 227-3446 <b>Fax:</b> (207) 989-4881 <b>Received Date:</b> 08/14/2020 3:14 PM <b>Analysis Date:</b> 08/18/2020 <b>Collected Date:</b> 08/05/2020
<b>Project:</b> 10963.005	

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
20200805-001	ACM1	Gray Fibrous		82% Non-fibrous (Other)	18% Chrysotile
622001141-0001		Homogeneous			

Report Comment: **ME CERT # BA-0197**

Analyst(s)  
Thomas Stegeman (1)

Zackary Carbee, Laboratory Manager  
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. South Portland, ME NVLAP Lab Code 500094-0, MA AA000236, VT AL197271, ME LM-0039, CT PH-0346

Initial report from: 08/20/2020 08:45:31