Travis/Peterson
Environmental Consulting, Inc.

Michael D. Travis P.E.
Principal

3305 Arctic Boulevard, Suite 102
Anchorage, Alaska 99503

Phone: 907-522-4337
Fax: 907-522-4313
e-mail: mtravis@tpeci.com

Laurence A. Peterson
Operations Manager

329 2nd Street
Fairbanks, Alaska 99701

Phone: 907-455-7225
Fax: 907-455-7228
e-mail: larry@tpeci.com

May 14, 2014
1520-01

Bloom Enterprises
1162 Park Drive
Fairbanks, Alaska 99709

Attention: **Susan Dawson**

Re: Water Sampling and Analysis

Ms. Dawson:

Travis/Peterson Environmental Consulting, Inc. (TPECI) personnel present the following letter documenting sampling results from the facility tap water sample collected April 30, 2014. TPECI personnel visited the facility's shop to collect a single tap water sample for analysis by EPA Method 524.2 for volatile organic compounds (VOCs) in drinking water

Sample Collection
A primary sample was collected from the shop bathroom sink and preserved on ice in a sealed cooler prior to submittal to Alaska Analytical Laboratory. Prior to collection, the tap was allowed to run for up to two minutes to clear the lines of any stagnant water. The sample was shipped with a trip blank and additional sample volume for matrix spike/matrix spike duplicate (MS/MSD) analysis by the laboratory. All samples were received by Pace Analytical Services Inc. in good condition within a day of sampling. Samples were analyzed within the seven day hold time for unpreserved VOC analyses.

Results and Data Quality Review
Benzene was detected in the tap sample at 4.8 μg/L and styrene was detected at 0.29J μg/L. The styrene concentration reported was J-flagged which indicates the result is an estimated concentration above the adjusted method detection limit and below the adjusted reporting limit. The groundwater cleanup level for benzene is 5.0 μg/L, and for styrene is 100 ug/L. Both results are below the most stringent groundwater cleanup levels applicable to this site. The following data flags were noted within the laboratory report:

Continuing Calibration data flags:

- L2: analyte recovery in the laboratory control sample (LCS0 was below QC limits. Results may be biased low for Bloom Tap (Lab ID: 10265571001) and Trip Blank (Lab ID:10265571002);
- pH: post-analysis pH measurement indicate insufficient VOA sample preservation for Bloom Tap (Lab ID: 10265571001) and Trip Blank (Lab ID: 10265571002;
- QC Batch: MSV/26984: CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low for the compound bromomethane in the following samples:
    - Blank(Lab ID: 1672173);
    - Bloom Tap (Lab ID: 10265571001);
    - LCS (Lab ID: 1672174);
    - MS (Lab ID: 1672176);
    - MSD (Lab ID: 1672176); and
    - Trip Blank (Lab ID: 10265571002).

Laboratory Control Spike flag:

- QC Batch: MSV/26984
    - L0: analyte recovery in the LCS was outside QC limits

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

- QC Batch MSV/26984
    - M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits for the following samples for bromomethane:
        - MS (Lab ID: 1672175)
        - MSD (Lab ID: 1672176)
    - R1: RPD value was outside control limits
        - MSD for bromomethane and chloroethane

The overall data quality is not affected. Percent recoveries and relative percent differences on results for lab control primary/duplicate samples were within quality control criteria with one exception. Bromomethane results in the field sample (Bloom Tap), the associated trip blank and both the LCS and MS/MSD samples are considered biased low due to low recovery of this analyte. This could possibly be due to matrix interference and should not have any effect on the other results reported by the lab.

TPECI recommends that an additional sample be collected in 2014 when the groundwater table is at its seasonal low. Sampling would occur in September, 2014 and TPECI recommends analysis by EPA 8021B for benzene, toluene, ethylbenzene, and xylene (BTEX) compounds.

Please contact us if there are questions concerning the contents of this letter. We can be reached at 907-455-7225.

Sincerely,

Melissa S. Shippey
Senior Scientist

Attachments: Figures 1 and 2
Laboratory analytical report
Laboratory data quality review checklist

cc: Amy Dieffenbacher, ADEC

TRAVIS/PETERSON ENVIRONMENTAL CONSULTING, INC.
329 SECOND STREET
FAIRBANKS, ALASKA 99701

BLOOM ENTERPRISES

PROJECT NO: 1520-01 FILE: S/PROJECTS/1520/01/FIGURES

FIGURE 1 LOCATION & VICINITY

TRAVIS/PETERSON ENVIRONMENTAL CONSULTING, INC.
329 SECOND STREET
FAIRBANKS, ALASKA 99701

BLOOM ENTERPRISES

FIGURE 2 SITE PLAN

PROJECT NO: 1520-01 FILE: S/PROJECTS/1520/01/FIGURES

Alaska Analytical Laboratory
1956 Richardson Highway
North Pole, Alaska 99705
TEL: (907) 488-1271 FAX: (907) 488-0772
Website: www.alaska-analytical.com

May 08, 2014

Melissa Shippey
Travis/Peterson Environmental Consulting Inc.
329 Second Street
Fairbanks, AK 99701
TEL: (907) 455-7225
FAX: (907) 455-7228

RE: Bloom Enterprises 1520-01 Order No.: 1404001

Dear Melissa Shippey:

Alaska Analytical Laboratory received 2 sample(s) on 4/30/2014 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative. Analytical results designated with a "J" qualifier are estimated and represent a detection above the Method Detection Limit (MDL) and less than the Reporting Limit (PQL). These analytes are not reviewed nor narrated as to whether they are laboratory artifacts.

Quality control data is within laboratory defined or method specified acceptance limits except if noted.

Alaska Analytical Laboratory, Inc. subcontracted water samples. The analyses were performed by Pace Analytical Services. Their report is attached for your use.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Kelley Lovejoy

Kelley Lovejoy
Lab Director
1956 Richardson Highway
North Pole, Alaska 99705

Alaska Analytical Laboratory
1956 Richardson Highway
North Pole, Alaska 99705
TEL: (907) 488-1271 FAX: (907) 488-0772
Website: www.alaska-analytical.com

Case Narrative

WO#: **1404001**
Date: **5/8/2014**

CLIENT: Travis/Peterson Environmental Consulting
Project: Bloom Enterprises 1520-01

This report in its entirety consists of the documents listed below. All documents contain the Alaska Analytical Laboratory Work Order Number assigned to this report.

1. Paginated Report including: Case Narrative, Analytical Results and Applicable Quality Control Summary Reports.

2. A Cover Letter that immediately precedes the Paginated Report.

Concentrations reported with a J flag in the Qual field are values below the reporting limit (RL) but greater than the established method detection limit (MDL). There is greater uncertainty associated with these results and data should be considered as estimated.

Concentrations reported with an E flag in the Qual field are values that exceed the upper quantification range. There is greater uncertainty associated with these results and data should be considered as estimated.

Any comments or problems with the analytical events associated with this report are noted below.
1404001-001A EPA 524.2 was subcontracted
1404001-002A EPA 524.2 was subcontracted

Alaska Analytical Laboratory
1956 Richardson Highway
North Pole, Alaska 99705
TEL: (907) 488-1271 FAX: (907) 488-0772
Website: www.alaska-analytical.com

Sample Receipt Checklist

Client Name: **TPECI01** Work Order Number **1404001**

RcptNo: **1** Date and Time Received: **4/30/2014 10:43:24 AM** Received by: **Kelley Lovejoy**

Completed by: Kelley Lovejoy Reviewed by: Kelley Lovejoy

Completed Date: 4/30/2014 10:53:56 AM Reviewed Date: 4/30/2014 10:53:59 AM

Carrier name: Client

Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐	Not Present	☐
Are matrices correctly identified on Chain of custody?	Yes ☑	No ☐		
Is it clear what analyses were requested?	Yes ☑	No ☐		
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present	☑
Samples in proper container/bottle?	Yes ☑	No ☐		
Were correct preservatives used and noted?	Yes ☑	No ☐	NA	☐
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
Were container lables complete (ID, Pres, Date)?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Was an attempt made to cool the samples?	Yes ☐	No ☑	NA	☐
All samples received at a temp. of > 0° C to 6.0° C?	Yes ☑	No ☐	NA	☐
Response when temperature is outside of range:				
Preservative added to bottles:				
Sample Temp. taken and recorded upon receipt?	Yes ☑	No ☐	3.1 To	3.1 º
Water - Were bubbles absent in VOC vials?	Yes ☑	No ☐	No Vials	☐
Water - Was there Chlorine Present?	Yes ☐	No ☑	NA	☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	No Water	☐
Are Samples considered acceptable?	Yes ☑	No ☐		
Custody Seals present?	Yes ☑	No ☐		
Traffic Report or Packing Lists present?	Yes ☐	No ☑		
Airbill or Sticker?	Air Bill ☐	Sticker ☐	Not Present	☑
Airbill No:				
Sample Tags Present?	Yes ☐	No ☑		
Sample Tags Listed on COC?	Yes ☐	No ☑		
Tag Numbers:				
Sample Condition?	Intact ☑	Broken ☐	Leaking	☐

Case Number: SDG: SAS:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.2	Good	Yes		4/30/2014	Melissa S Shippe

Equipment Information

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Alaska Analytical Laboratory
1956 Richardson Highway
North Pole, Alaska 99705
TEL: (907) 488-1271 FAX: (907) 488-0772
Website: www.alaska-analytical.com

Sample Receipt Checklist

Client Name: **TPECI01**

Work Order Number **1404001**

Client Contacted? ☐ Yes ☑ No ☐ NA Person Contacted:

Contact Mode: ☐ Phone: ☐ Fax: ☐ Email: ☐ In Person:

Client Instructions:

Date Contacted: Contacted By:

Regarding:

CorrectiveAction:

Comments:
Was an attempt made to cool the sample? The lab did not attempt to cool the samples. Samples were received with gel ice in the cooler. Temp. Blank and Cooler were within the ADEC acceptable range.

Sample Details

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1404001-001A	Container-01 of 09	Bottle				
1404001-001A	Container-02 of 09	Bottle				
1404001-001A	Container-03 of 09	Bottle				
1404001-001A	Container-04 of 09	Bottle				
1404001-001A	Container-05 of 09	Bottle				
1404001-001A	Container-06 of 09	Bottle				
1404001-001A	Container-07 of 09	Bottle				
1404001-001A	Container-08 of 09	Bottle				
1404001-001A	Container-09 of 09	Bottle				
1404001-002A	Container-01 of 02	Bottle				
1404001-002A	Container-02 of 02	Bottle				

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The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1505191

Section A Required Client Information:
Company: Travis/Peterson Env.
Address: 329 Second St
Fairbanks AK 99701
Email To: MSlippy@tpeci.com
Phone: Fax:
Requested Due Date/TAT: 10 day

Section B Required Project Information:
Report To: Kelley Lonejoy
Copy To: Alaska Analytical
Purchase Order No.:
Project Name: BLOOM ENTERPRISES
Project Number: 1520-D1

Section C Invoice Information:
Attention: Kelley Lonejoy
Company Name: Alaska Analytical
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: AK

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Analysis Test: EPA 524.2 VOCs (Y/N: N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Bloom Tap	WT	G	4/30	9:50am				3				X					X		
2	Trip Blank	WT	G	4/30	9:50am				2				X					X		
3	MS/MSD VOLUME	WT	G	4/30	9:50am				6				X							
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS		
Primary Sample & Trip Blank - No Duplicate Collected	Melissa Shippey	4/30	10:05am	Kelley Lonejoy	4/30/14	10:38am	3.2°C	Y	Y	Y

ORIGINAL

Cooler Temp 3.2°C

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: MELISSA S. SHIPPEY
SIGNATURE of SAMPLER: MS Shippey
DATE Signed (MM/DD/YY): 04-30-2014

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

14-0001
4/30/14

Pace Analytical®
CUSTODY SEAL

SIGNATURE

DATE 4/30/14

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

May 12, 2014

Kelley Lovejoy
Alaska Analytical Laboratory
1956 Richardson Highway
North Pole, AK 99705

RE: Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

Dear Kelley Lovejoy:
Enclosed are the analytical results for sample(s) received by the laboratory on May 01, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

05/12/14 - Updated notes on the SCUR

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
Project Manager

Enclosures

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Certification #40770
Alabama Certification #40770
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #: Pace
Georgia Certification #: 959
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nebraska Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
Wisconsin Certification #: 999407970
West Virginia Certification #: 382
West Virginia TO-15 Approval
West Virginia DHHR #:9952C

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SAMPLE SUMMARY

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10265571001	**Bloom Tap**	Water	04/30/14 09:50	05/01/14 14:22
10265571002	**Trip Blank**	Water	04/30/14 09:50	05/01/14 14:22

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SAMPLE ANALYTE COUNT

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10265571001	**Bloom Tap**	EPA 524.2	EB2	74	PASI-M
10265571002	**Trip Blank**	EPA 524.2	EB2	74	PASI-M

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Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

Method: **EPA 524.2**
Description: 524.2 MSV
Client: Alaska Analytical Lab
Date: May 12, 2014

General Information:
2 samples were analyzed for EPA 524.2. All samples were received in acceptable condition with any exceptions noted below.

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
- Bloom Tap (Lab ID: 10265571001)
- Trip Blank (Lab ID: 10265571002)

pH: Post-analysis pH measurement indicates insufficient VOA sample preservation.
- Bloom Tap (Lab ID: 10265571001)
- Trip Blank (Lab ID: 10265571002)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: MSV/26984

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
- BLANK (Lab ID: 1672173)
  - Bromomethane
- Bloom Tap (Lab ID: 10265571001)
  - Bromomethane
- LCS (Lab ID: 1672174)
  - Bromomethane
- MS (Lab ID: 1672175)
  - Bromomethane
- MSD (Lab ID: 1672176)
  - Bromomethane
- Trip Blank (Lab ID: 10265571002)
  - Bromomethane

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

Method: **EPA 524.2**
Description: 524.2 MSV
Client: Alaska Analytical Lab
Date: May 12, 2014

QC Batch: MSV/26984

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1672174)
  - Bromomethane

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/26984

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10265571001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1672175)
  - Bromomethane
- MSD (Lab ID: 1672176)
  - Bromomethane

R1: RPD value was outside control limits.

- MSD (Lab ID: 1672176)
  - Bromomethane
  - Chloroethane

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

Sample: Bloom Tap **Lab ID: 10265571001** Collected: 04/30/14 09:50 Received: 05/01/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2								
1,1,1,2-Tetrachloroethane	**<0.10**	ug/L	0.50	0.10	1		05/05/14 14:42	630-20-6	
1,1,1-Trichloroethane	**<0.17**	ug/L	0.50	0.17	1		05/05/14 14:42	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.075**	ug/L	0.50	0.075	1		05/05/14 14:42	79-34-5	
1,1,2-Trichloroethane	**<0.10**	ug/L	0.50	0.10	1		05/05/14 14:42	79-00-5	
1,1-Dichloroethane	**<0.077**	ug/L	0.50	0.077	1		05/05/14 14:42	75-34-3	
1,1-Dichloroethene	**<0.13**	ug/L	0.50	0.13	1		05/05/14 14:42	75-35-4	
1,1-Dichloropropene	**<0.11**	ug/L	0.50	0.11	1		05/05/14 14:42	563-58-6	
1,2,3-Trichlorobenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	87-61-6	
1,2,3-Trichloropropane	**<1.2**	ug/L	4.0	1.2	1		05/05/14 14:42	96-18-4	
1,2,4-Trichlorobenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	120-82-1	
1,2,4-Trimethylbenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		05/05/14 14:42	96-12-8	
1,2-Dibromoethane (EDB)	**<0.097**	ug/L	0.50	0.097	1		05/05/14 14:42	106-93-4	
1,2-Dichlorobenzene	**<0.082**	ug/L	0.50	0.082	1		05/05/14 14:42	95-50-1	
1,2-Dichloroethane	**<0.093**	ug/L	0.50	0.093	1		05/05/14 14:42	107-06-2	
1,2-Dichloropropane	**<0.10**	ug/L	4.0	0.10	1		05/05/14 14:42	78-87-5	
1,3,5-Trimethylbenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	108-67-8	
1,3-Dichlorobenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	541-73-1	
1,3-Dichloropropane	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	142-28-9	
1,4-Dichlorobenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	106-46-7	
2,2-Dichloropropane	**<0.17**	ug/L	1.0	0.17	1		05/05/14 14:42	594-20-7	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		05/05/14 14:42	78-93-3	
2-Chlorotoluene	**<0.064**	ug/L	0.50	0.064	1		05/05/14 14:42	95-49-8	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		05/05/14 14:42	591-78-6	
2-Nitropropane	**<5.5**	ug/L	10.0	5.5	1		05/05/14 14:42	79-46-9	
4-Chlorotoluene	**<0.10**	ug/L	0.50	0.10	1		05/05/14 14:42	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		05/05/14 14:42	108-10-1	
Acetone	**<10.0**	ug/L	20.0	10.0	1		05/05/14 14:42	67-64-1	
Acrylonitrile	**<1.0**	ug/L	10.0	1.0	1		05/05/14 14:42	107-13-1	
Benzene	**4.8**	ug/L	0.50	0.073	1		05/05/14 14:42	71-43-2	
Bromobenzene	**<0.094**	ug/L	0.50	0.094	1		05/05/14 14:42	108-86-1	
Bromochloromethane	**<0.15**	ug/L	1.0	0.15	1		05/05/14 14:42	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	0.50	0.11	1		05/05/14 14:42	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		05/05/14 14:42	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		05/05/14 14:42	74-83-9	CL,L2, M0,R1
Carbon disulfide	**<0.12**	ug/L	1.0	0.12	1		05/05/14 14:42	75-15-0	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/05/14 14:42	56-23-5	
Chlorobenzene	**<0.066**	ug/L	0.50	0.066	1		05/05/14 14:42	108-90-7	
Chloroethane	**<0.17**	ug/L	1.0	0.17	1		05/05/14 14:42	75-00-3	R1
Chloroform	**<0.20**	ug/L	0.50	0.20	1		05/05/14 14:42	67-66-3	
Chloromethane	**<0.34**	ug/L	4.0	0.34	1		05/05/14 14:42	74-87-3	
Dibromochloromethane	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	124-48-1	
Dibromomethane	**<0.25**	ug/L	1.0	0.25	1		05/05/14 14:42	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	1.0	0.50	1		05/05/14 14:42	75-71-8	
Ethyl methacrylate	**<1.2**	ug/L	4.0	1.2	1		05/05/14 14:42	97-63-2	

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ANALYTICAL RESULTS

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

Sample: Bloom Tap **Lab ID: 10265571001** Collected: 04/30/14 09:50 Received: 05/01/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2								
Ethylbenzene	**<0.096**	ug/L	0.50	0.096	1		05/05/14 14:42	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	1.0	0.50	1		05/05/14 14:42	87-68-3	
Isopropylbenzene (Cumene)	**<0.068**	ug/L	0.50	0.068	1		05/05/14 14:42	98-82-8	
Methyl methacrylate	**<0.94**	ug/L	5.0	0.94	1		05/05/14 14:42	80-62-6	
Methyl-tert-butyl ether	**<0.078**	ug/L	0.50	0.078	1		05/05/14 14:42	1634-04-4	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		05/05/14 14:42	75-09-2	
Naphthalene	**<0.50**	ug/L	1.0	0.50	1		05/05/14 14:42	91-20-3	
Styrene	**0.29J**	ug/L	0.50	0.064	1		05/05/14 14:42	100-42-5	
Tetrachloroethene	**<0.099**	ug/L	0.50	0.099	1		05/05/14 14:42	127-18-4	
Toluene	**<0.11**	ug/L	0.50	0.11	1		05/05/14 14:42	108-88-3	
Trichloroethene	**<0.084**	ug/L	0.50	0.084	1		05/05/14 14:42	79-01-6	
Trichlorofluoromethane	**<0.12**	ug/L	0.50	0.12	1		05/05/14 14:42	75-69-4	
Vinyl chloride	**<0.20**	ug/L	0.40	0.20	1		05/05/14 14:42	75-01-4	
Xylene (Total)	**<0.20**	ug/L	1.5	0.20	1		05/05/14 14:42	1330-20-7	
cis-1,2-Dichloroethene	**<0.11**	ug/L	0.50	0.11	1		05/05/14 14:42	156-59-2	
cis-1,3-Dichloropropene	**<0.25**	ug/L	1.0	0.25	1		05/05/14 14:42	10061-01-5	
m&p-Xylene	**<0.12**	ug/L	1.0	0.12	1		05/05/14 14:42	179601-23-1	
n-Butylbenzene	**<0.11**	ug/L	0.50	0.11	1		05/05/14 14:42	104-51-8	
n-Propylbenzene	**<0.077**	ug/L	0.50	0.077	1		05/05/14 14:42	103-65-1	
o-Xylene	**<0.073**	ug/L	0.50	0.073	1		05/05/14 14:42	95-47-6	
p-Isopropyltoluene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	99-87-6	
sec-Butylbenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	135-98-8	
tert-Butylbenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	98-06-6	
trans-1,2-Dichloroethene	**<0.15**	ug/L	0.50	0.15	1		05/05/14 14:42	156-60-5	
trans-1,3-Dichloropropene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 14:42	10061-02-6	
trans-1,4-Dichloro-2-butene	**<5.0**	ug/L	10.0	5.0	1		05/05/14 14:42	110-57-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%.	75-125		1		05/05/14 14:42	460-00-4	pH
Toluene-d8 (S)	102	%.	75-125		1		05/05/14 14:42	2037-26-5	
1,2-Dichloroethane-d4 (S)	94	%.	75-125		1		05/05/14 14:42	17060-07-0	

Sample: Trip Blank **Lab ID: 10265571002** Collected: 04/30/14 09:50 Received: 05/01/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2								
Acetone	**<10.0**	ug/L	20.0	10.0	1		05/05/14 13:52	67-64-1	
Acrylonitrile	**<1.0**	ug/L	10.0	1.0	1		05/05/14 13:52	107-13-1	
Benzene	**<0.073**	ug/L	0.50	0.073	1		05/05/14 13:52	71-43-2	
Bromobenzene	**<0.094**	ug/L	0.50	0.094	1		05/05/14 13:52	108-86-1	
Bromochloromethane	**<0.15**	ug/L	1.0	0.15	1		05/05/14 13:52	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	0.50	0.11	1		05/05/14 13:52	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		05/05/14 13:52	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		05/05/14 13:52	74-83-9	CL,L2

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ANALYTICAL RESULTS

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

Sample: Trip Blank **Lab ID: 10265571002** Collected: 04/30/14 09:50 Received: 05/01/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2								
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		05/05/14 13:52	78-93-3	
n-Butylbenzene	**<0.11**	ug/L	0.50	0.11	1		05/05/14 13:52	104-51-8	
sec-Butylbenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	135-98-8	
tert-Butylbenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	98-06-6	
Carbon disulfide	**<0.12**	ug/L	1.0	0.12	1		05/05/14 13:52	75-15-0	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		05/05/14 13:52	56-23-5	
Chlorobenzene	**<0.066**	ug/L	0.50	0.066	1		05/05/14 13:52	108-90-7	
Chloroethane	**<0.17**	ug/L	1.0	0.17	1		05/05/14 13:52	75-00-3	
Chloroform	**<0.20**	ug/L	0.50	0.20	1		05/05/14 13:52	67-66-3	
Chloromethane	**<0.34**	ug/L	4.0	0.34	1		05/05/14 13:52	74-87-3	
2-Chlorotoluene	**<0.064**	ug/L	0.50	0.064	1		05/05/14 13:52	95-49-8	
4-Chlorotoluene	**<0.10**	ug/L	0.50	0.10	1		05/05/14 13:52	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		05/05/14 13:52	96-12-8	
Dibromochloromethane	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	124-48-1	
1,2-Dibromoethane (EDB)	**<0.097**	ug/L	0.50	0.097	1		05/05/14 13:52	106-93-4	
Dibromomethane	**<0.25**	ug/L	1.0	0.25	1		05/05/14 13:52	74-95-3	
1,2-Dichlorobenzene	**<0.082**	ug/L	0.50	0.082	1		05/05/14 13:52	95-50-1	
1,3-Dichlorobenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	541-73-1	
1,4-Dichlorobenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	106-46-7	
trans-1,4-Dichloro-2-butene	**<5.0**	ug/L	10.0	5.0	1		05/05/14 13:52	110-57-6	
Dichlorodifluoromethane	**<0.50**	ug/L	1.0	0.50	1		05/05/14 13:52	75-71-8	
1,1-Dichloroethane	**<0.077**	ug/L	0.50	0.077	1		05/05/14 13:52	75-34-3	
1,2-Dichloroethane	**<0.093**	ug/L	0.50	0.093	1		05/05/14 13:52	107-06-2	
1,1-Dichloroethene	**<0.13**	ug/L	0.50	0.13	1		05/05/14 13:52	75-35-4	
cis-1,2-Dichloroethene	**<0.11**	ug/L	0.50	0.11	1		05/05/14 13:52	156-59-2	
trans-1,2-Dichloroethene	**<0.15**	ug/L	0.50	0.15	1		05/05/14 13:52	156-60-5	
1,2-Dichloropropane	**<0.10**	ug/L	4.0	0.10	1		05/05/14 13:52	78-87-5	
1,3-Dichloropropane	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	142-28-9	
2,2-Dichloropropane	**<0.17**	ug/L	1.0	0.17	1		05/05/14 13:52	594-20-7	
1,1-Dichloropropene	**<0.11**	ug/L	0.50	0.11	1		05/05/14 13:52	563-58-6	
cis-1,3-Dichloropropene	**<0.25**	ug/L	1.0	0.25	1		05/05/14 13:52	10061-01-5	
trans-1,3-Dichloropropene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	10061-02-6	
Ethylbenzene	**<0.096**	ug/L	0.50	0.096	1		05/05/14 13:52	100-41-4	
Ethyl methacrylate	**<1.2**	ug/L	4.0	1.2	1		05/05/14 13:52	97-63-2	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	1.0	0.50	1		05/05/14 13:52	87-68-3	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		05/05/14 13:52	591-78-6	
Isopropylbenzene (Cumene)	**<0.068**	ug/L	0.50	0.068	1		05/05/14 13:52	98-82-8	
p-Isopropyltoluene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	99-87-6	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		05/05/14 13:52	75-09-2	
Methyl methacrylate	**<0.94**	ug/L	5.0	0.94	1		05/05/14 13:52	80-62-6	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		05/05/14 13:52	108-10-1	
Methyl-tert-butyl ether	**<0.078**	ug/L	0.50	0.078	1		05/05/14 13:52	1634-04-4	
Naphthalene	**<0.50**	ug/L	1.0	0.50	1		05/05/14 13:52	91-20-3	
2-Nitropropane	**<5.5**	ug/L	10.0	5.5	1		05/05/14 13:52	79-46-9	
n-Propylbenzene	**<0.077**	ug/L	0.50	0.077	1		05/05/14 13:52	103-65-1	
Styrene	**<0.064**	ug/L	0.50	0.064	1		05/05/14 13:52	100-42-5	

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ANALYTICAL RESULTS

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

Sample: Trip Blank **Lab ID: 10265571002** Collected: 04/30/14 09:50 Received: 05/01/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2								
1,1,1,2-Tetrachloroethane	**<0.10**	ug/L	0.50	0.10	1		05/05/14 13:52	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.075**	ug/L	0.50	0.075	1		05/05/14 13:52	79-34-5	
Tetrachloroethene	**<0.099**	ug/L	0.50	0.099	1		05/05/14 13:52	127-18-4	
Toluene	**<0.11**	ug/L	0.50	0.11	1		05/05/14 13:52	108-88-3	
1,2,3-Trichlorobenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	87-61-6	
1,2,4-Trichlorobenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	0.50	0.17	1		05/05/14 13:52	71-55-6	
1,1,2-Trichloroethane	**<0.10**	ug/L	0.50	0.10	1		05/05/14 13:52	79-00-5	
Trichloroethene	**<0.084**	ug/L	0.50	0.084	1		05/05/14 13:52	79-01-6	
Trichlorofluoromethane	**<0.12**	ug/L	0.50	0.12	1		05/05/14 13:52	75-69-4	
1,2,3-Trichloropropane	**<1.2**	ug/L	4.0	1.2	1		05/05/14 13:52	96-18-4	
1,2,4-Trimethylbenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	95-63-6	
1,3,5-Trimethylbenzene	**<0.25**	ug/L	0.50	0.25	1		05/05/14 13:52	108-67-8	
Vinyl chloride	**<0.20**	ug/L	0.40	0.20	1		05/05/14 13:52	75-01-4	
Xylene (Total)	**<0.20**	ug/L	1.5	0.20	1		05/05/14 13:52	1330-20-7	
m&p-Xylene	**<0.12**	ug/L	1.0	0.12	1		05/05/14 13:52	179601-23-1	
o-Xylene	**<0.073**	ug/L	0.50	0.073	1		05/05/14 13:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%.	75-125		1		05/05/14 13:52	460-00-4	pH
Toluene-d8 (S)	101	%.	75-125		1		05/05/14 13:52	2037-26-5	
1,2-Dichloroethane-d4 (S)	92	%.	75-125		1		05/05/14 13:52	17060-07-0	

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QUALITY CONTROL DATA

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

QC Batch: MSV/26984 | Analysis Method: EPA 524.2
QC Batch Method: EPA 524.2 | Analysis Description: 524.2 MSV
Associated Lab Samples: 10265571001, 10265571002

METHOD BLANK: 1672173 | Matrix: Water
Associated Lab Samples: 10265571001, 10265571002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.10	0.50	05/05/14 13:27	
1,1,1-Trichloroethane	ug/L	<0.17	0.50	05/05/14 13:27	
1,1,2,2-Tetrachloroethane	ug/L	<0.075	0.50	05/05/14 13:27	
1,1,2-Trichloroethane	ug/L	<0.10	0.50	05/05/14 13:27	
1,1-Dichloroethane	ug/L	<0.077	0.50	05/05/14 13:27	
1,1-Dichloroethene	ug/L	<0.13	0.50	05/05/14 13:27	
1,1-Dichloropropene	ug/L	<0.11	0.50	05/05/14 13:27	
1,2,3-Trichlorobenzene	ug/L	<0.25	0.50	05/05/14 13:27	
1,2,3-Trichloropropane	ug/L	<1.2	4.0	05/05/14 13:27	
1,2,4-Trichlorobenzene	ug/L	<0.25	0.50	05/05/14 13:27	
1,2,4-Trimethylbenzene	ug/L	<0.25	0.50	05/05/14 13:27	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	4.0	05/05/14 13:27	
1,2-Dibromoethane (EDB)	ug/L	<0.097	0.50	05/05/14 13:27	
1,2-Dichlorobenzene	ug/L	<0.082	0.50	05/05/14 13:27	
1,2-Dichloroethane	ug/L	<0.093	0.50	05/05/14 13:27	
1,2-Dichloropropane	ug/L	<0.10	4.0	05/05/14 13:27	
1,3,5-Trimethylbenzene	ug/L	<0.25	0.50	05/05/14 13:27	
1,3-Dichlorobenzene	ug/L	<0.25	0.50	05/05/14 13:27	
1,3-Dichloropropane	ug/L	<0.25	0.50	05/05/14 13:27	
1,4-Dichlorobenzene	ug/L	<0.25	0.50	05/05/14 13:27	
2,2-Dichloropropane	ug/L	<0.17	1.0	05/05/14 13:27	
2-Butanone (MEK)	ug/L	<2.5	5.0	05/05/14 13:27	
2-Chlorotoluene	ug/L	<0.064	0.50	05/05/14 13:27	
2-Hexanone	ug/L	<2.5	5.0	05/05/14 13:27	
2-Nitropropane	ug/L	<5.5	10.0	05/05/14 13:27	
4-Chlorotoluene	ug/L	<0.10	0.50	05/05/14 13:27	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	5.0	05/05/14 13:27	
Acetone	ug/L	<10.0	20.0	05/05/14 13:27	
Acrylonitrile	ug/L	<1.0	10.0	05/05/14 13:27	
Benzene	ug/L	<0.073	0.50	05/05/14 13:27	
Bromobenzene	ug/L	<0.094	0.50	05/05/14 13:27	
Bromochloromethane	ug/L	<0.15	1.0	05/05/14 13:27	
Bromodichloromethane	ug/L	<0.11	0.50	05/05/14 13:27	
Bromoform	ug/L	<2.0	4.0	05/05/14 13:27	
Bromomethane	ug/L	<2.0	4.0	05/05/14 13:27	CL
Carbon disulfide	ug/L	<0.12	1.0	05/05/14 13:27	
Carbon tetrachloride	ug/L	<0.17	1.0	05/05/14 13:27	
Chlorobenzene	ug/L	<0.066	0.50	05/05/14 13:27	
Chloroethane	ug/L	<0.17	1.0	05/05/14 13:27	
Chloroform	ug/L	<0.20	0.50	05/05/14 13:27	
Chloromethane	ug/L	<0.34	4.0	05/05/14 13:27	
cis-1,2-Dichloroethene	ug/L	<0.11	0.50	05/05/14 13:27	
cis-1,3-Dichloropropene	ug/L	<0.25	1.0	05/05/14 13:27	

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QUALITY CONTROL DATA

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

METHOD BLANK: 1672173 Matrix: Water
Associated Lab Samples: 10265571001, 10265571002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<0.25	0.50	05/05/14 13:27	
Dibromomethane	ug/L	<0.25	1.0	05/05/14 13:27	
Dichlorodifluoromethane	ug/L	<0.50	1.0	05/05/14 13:27	
Ethyl methacrylate	ug/L	<1.2	4.0	05/05/14 13:27	
Ethylbenzene	ug/L	<0.096	0.50	05/05/14 13:27	
Hexachloro-1,3-butadiene	ug/L	<0.50	1.0	05/05/14 13:27	
Isopropylbenzene (Cumene)	ug/L	<0.068	0.50	05/05/14 13:27	
m&p-Xylene	ug/L	<0.12	1.0	05/05/14 13:27	
Methyl methacrylate	ug/L	<0.94	5.0	05/05/14 13:27	
Methyl-tert-butyl ether	ug/L	<0.078	0.50	05/05/14 13:27	
Methylene Chloride	ug/L	<2.0	4.0	05/05/14 13:27	
n-Butylbenzene	ug/L	<0.11	0.50	05/05/14 13:27	
n-Propylbenzene	ug/L	<0.077	0.50	05/05/14 13:27	
Naphthalene	ug/L	<0.50	1.0	05/05/14 13:27	
o-Xylene	ug/L	<0.073	0.50	05/05/14 13:27	
p-Isopropyltoluene	ug/L	<0.25	0.50	05/05/14 13:27	
sec-Butylbenzene	ug/L	<0.25	0.50	05/05/14 13:27	
Styrene	ug/L	<0.064	0.50	05/05/14 13:27	
tert-Butylbenzene	ug/L	<0.25	0.50	05/05/14 13:27	
Tetrachloroethene	ug/L	<0.099	0.50	05/05/14 13:27	
Toluene	ug/L	<0.11	0.50	05/05/14 13:27	
trans-1,2-Dichloroethene	ug/L	<0.15	0.50	05/05/14 13:27	
trans-1,3-Dichloropropene	ug/L	<0.25	0.50	05/05/14 13:27	
trans-1,4-Dichloro-2-butene	ug/L	<5.0	10.0	05/05/14 13:27	
Trichloroethene	ug/L	<0.084	0.50	05/05/14 13:27	
Trichlorofluoromethane	ug/L	<0.12	0.50	05/05/14 13:27	
Vinyl chloride	ug/L	<0.20	0.40	05/05/14 13:27	
Xylene (Total)	ug/L	<0.20	1.5	05/05/14 13:27	
1,2-Dichloroethane-d4 (S)	%.	91	75-125	05/05/14 13:27	
4-Bromofluorobenzene (S)	%.	102	75-125	05/05/14 13:27	
Toluene-d8 (S)	%.	101	75-125	05/05/14 13:27	

LABORATORY CONTROL SAMPLE: 1672174

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	19.9	99	70-130	
1,1,1-Trichloroethane	ug/L	20	16.8	84	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	16.6	83	70-130	
1,1,2-Trichloroethane	ug/L	20	18.4	92	70-130	
1,1-Dichloroethane	ug/L	20	15.0	75	70-130	
1,1-Dichloroethene	ug/L	20	14.8	74	70-130	
1,1-Dichloropropene	ug/L	20	15.9	79	70-130	
1,2,3-Trichlorobenzene	ug/L	20	19.1	96	70-130	
1,2,3-Trichloropropane	ug/L	20	17.6	88	70-130	
1,2,4-Trichlorobenzene	ug/L	20	17.6	88	70-130	

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QUALITY CONTROL DATA

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

LABORATORY CONTROL SAMPLE: 1672174

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	17.1	85	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.4	103	70-130	
1,2-Dibromoethane (EDB)	ug/L	20	19.5	98	70-130	
1,2-Dichlorobenzene	ug/L	20	17.0	85	70-130	
1,2-Dichloroethane	ug/L	20	16.0	80	70-130	
1,2-Dichloropropane	ug/L	20	18.8	94	70-130	
1,3,5-Trimethylbenzene	ug/L	20	16.1	81	70-130	
1,3-Dichlorobenzene	ug/L	20	17.9	90	70-130	
1,3-Dichloropropane	ug/L	20	17.5	88	70-130	
1,4-Dichlorobenzene	ug/L	20	17.1	85	70-130	
2,2-Dichloropropane	ug/L	20	19.4	97	70-130	
2-Butanone (MEK)	ug/L	100	79.7	80	70-130	
2-Chlorotoluene	ug/L	20	16.1	80	70-130	
2-Hexanone	ug/L	100	86.4	86	70-130	
2-Nitropropane	ug/L	100	102	102	70-130	
4-Chlorotoluene	ug/L	20	16.6	83	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	83.8	84	70-130	
Acetone	ug/L	100	91.1	91	70-130	
Acrylonitrile	ug/L	200	161	81	70-130	
Benzene	ug/L	20	16.1	81	70-130	
Bromobenzene	ug/L	20	18.2	91	70-130	
Bromochloromethane	ug/L	20	16.9	85	70-130	
Bromodichloromethane	ug/L	20	20.4	102	70-130	
Bromoform	ug/L	20	22.2	111	70-130	
Bromomethane	ug/L	20	7.4	37	70-130	CL,L0
Carbon disulfide	ug/L	20	14.9	74	70-130	
Carbon tetrachloride	ug/L	20	16.3	82	70-130	
Chlorobenzene	ug/L	20	16.6	83	70-130	
Chloroethane	ug/L	20	16.0	80	70-130	
Chloroform	ug/L	20	15.7	79	70-130	
Chloromethane	ug/L	20	15.5	78	70-130	
cis-1,2-Dichloroethene	ug/L	20	15.4	77	70-130	
cis-1,3-Dichloropropene	ug/L	20	20.7	104	70-130	
Dibromochloromethane	ug/L	20	20.7	103	70-130	
Dibromomethane	ug/L	20	22.5	113	70-130	
Dichlorodifluoromethane	ug/L	20	14.4	72	70-130	
Ethyl methacrylate	ug/L	20	19.1	96	70-130	
Ethylbenzene	ug/L	20	16.3	81	70-130	
Hexachloro-1,3-butadiene	ug/L	20	19.2	96	70-130	
Isopropylbenzene (Cumene)	ug/L	20	17.8	89	70-130	
m&p-Xylene	ug/L	40	34.2	86	70-130	
Methyl methacrylate	ug/L	100	96.7	97	70-130	
Methyl-tert-butyl ether	ug/L	20	16.1	80	70-130	
Methylene Chloride	ug/L	20	16.6	83	70-130	
n-Butylbenzene	ug/L	20	16.5	83	70-130	
n-Propylbenzene	ug/L	20	16.3	82	70-130	
Naphthalene	ug/L	20	19.8	99	70-130	
o-Xylene	ug/L	20	17.2	86	70-130	

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QUALITY CONTROL DATA

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

LABORATORY CONTROL SAMPLE: 1672174

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/L	20	17.7	88	70-130	
sec-Butylbenzene	ug/L	20	17.1	85	70-130	
Styrene	ug/L	20	17.9	89	70-130	
tert-Butylbenzene	ug/L	20	17.1	86	70-130	
Tetrachloroethene	ug/L	20	18.2	91	70-130	
Toluene	ug/L	20	17.1	85	70-130	
trans-1,2-Dichloroethene	ug/L	20	15.6	78	70-130	
trans-1,3-Dichloropropene	ug/L	20	19.9	100	70-130	
trans-1,4-Dichloro-2-butene	ug/L	50	44.5	89	70-130	
Trichloroethene	ug/L	20	16.9	85	70-130	
Trichlorofluoromethane	ug/L	20	14.2	71	70-130	
Vinyl chloride	ug/L	20	15.6	78	70-130	
Xylene (Total)	ug/L	60	51.4	86	70-130	
1,2-Dichloroethane-d4 (S)	%.			86	75-125	
4-Bromofluorobenzene (S)	%.			95	75-125	
Toluene-d8 (S)	%.			99	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1672175 1672176

Parameter	Units	10265571001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	<0.10	20	20	22.6	23.0	113	115	70-130	2	20	
1,1,1-Trichloroethane	ug/L	<0.17	20	20	21.4	21.3	107	107	70-130	.6	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.075	20	20	19.1	18.1	96	90	70-130	6	20	
1,1,2-Trichloroethane	ug/L	<0.10	20	20	20.7	20.6	104	103	70-130	.8	20	
1,1-Dichloroethane	ug/L	<0.077	20	20	18.3	18.4	92	92	70-130	.5	20	
1,1-Dichloroethene	ug/L	<0.13	20	20	19.8	21.7	99	108	70-130	9	20	
1,1-Dichloropropene	ug/L	<0.11	20	20	20.1	19.6	101	98	70-130	3	20	
1,2,3-Trichlorobenzene	ug/L	<0.25	20	20	22.2	21.6	111	108	70-130	3	20	
1,2,3-Trichloropropane	ug/L	<1.2	20	20	20.3	20.4	102	102	70-130	.2	20	
1,2,4-Trichlorobenzene	ug/L	<0.25	20	20	20.4	20.3	102	102	70-130	.09	20	
1,2,4-Trimethylbenzene	ug/L	<0.25	20	20	19.8	19.0	99	95	70-130	4	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	50	50	59.3	63.6	119	127	70-130	7	20	
1,2-Dibromoethane (EDB)	ug/L	<0.097	20	20	21.7	21.4	109	107	70-130	2	20	
1,2-Dichlorobenzene	ug/L	<0.082	20	20	19.4	19.3	97	97	70-130	.4	20	
1,2-Dichloroethane	ug/L	<0.093	20	20	19.0	18.3	95	91	70-130	4	20	
1,2-Dichloropropane	ug/L	<0.10	20	20	21.9	20.6	109	103	70-130	6	20	
1,3,5-Trimethylbenzene	ug/L	<0.25	20	20	19.1	18.4	95	92	70-130	4	20	
1,3-Dichlorobenzene	ug/L	<0.25	20	20	20.4	20.3	102	102	70-130	.7	20	
1,3-Dichloropropane	ug/L	<0.25	20	20	19.6	18.9	98	94	70-130	4	20	
1,4-Dichlorobenzene	ug/L	<0.25	20	20	19.5	19.3	97	97	70-130	.8	20	
2,2-Dichloropropane	ug/L	<0.17	20	20	23.8	22.8	119	114	70-130	4	20	
2-Butanone (MEK)	ug/L	<2.5	100	100	99.0	97.3	99	97	70-130	2	20	
2-Chlorotoluene	ug/L	<0.064	20	20	18.7	18.0	94	90	70-130	4	20	
2-Hexanone	ug/L	<2.5	100	100	104	103	104	103	70-130	.6	20	
2-Nitropropane	ug/L	<5.5	100	100	113	114	113	114	70-130	.3	20	
4-Chlorotoluene	ug/L	<0.10	20	20	19.5	18.5	97	93	70-130	5	20	

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QUALITY CONTROL DATA

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1672175 1672176

Parameter	Units	10265571001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	100	100	98.9	97.8	99	98	70-130	1	20	
Acetone	ug/L	<10.0	100	100	102	98.0	102	98	70-130	4	20	
Acrylonitrile	ug/L	<1.0	200	200	192	194	96	97	70-130	1	20	
Benzene	ug/L	4.8	20	20	24.8	23.9	100	95	70-130	4	20	
Bromobenzene	ug/L	<0.094	20	20	21.6	21.5	108	107	70-130	.7	20	
Bromochloromethane	ug/L	<0.15	20	20	20.8	20.1	104	101	70-130	3	20	
Bromodichloromethane	ug/L	<0.11	20	20	23.4	23.1	117	116	70-130	1	20	
Bromoform	ug/L	<2.0	20	20	23.4	25.3	117	126	70-130	7	20	
Bromomethane	ug/L	<2.0	20	20	10.1	12.8	51	64	70-130	24	20	CL,M0, R1
Carbon disulfide	ug/L	<0.12	20	20	18.5	18.9	92	94	70-130	2	20	
Carbon tetrachloride	ug/L	<0.17	20	20	21.8	21.3	109	107	70-130	2	20	
Chlorobenzene	ug/L	<0.066	20	20	19.5	19.5	98	98	70-130	.003	20	
Chloroethane	ug/L	<0.17	20	20	23.5	15.7	117	79	70-130	40	20	R1
Chloroform	ug/L	<0.20	20	20	21.3	20.4	106	102	70-130	4	20	
Chloromethane	ug/L	<0.34	20	20	18.7	21.4	93	107	70-130	14	20	
cis-1,2-Dichloroethene	ug/L	<0.11	20	20	19.2	18.6	96	93	70-130	3	20	
cis-1,3-Dichloropropene	ug/L	<0.25	20	20	23.0	22.3	115	111	70-130	3	20	
Dibromochloromethane	ug/L	<0.25	20	20	22.9	22.5	114	112	70-130	2	20	
Dibromomethane	ug/L	<0.25	20	20	25.0	24.9	125	125	70-130	.3	20	
Dichlorodifluoromethane	ug/L	<0.50	20	20	25.6	25.4	128	127	70-130	.8	20	
Ethyl methacrylate	ug/L	<1.2	20	20	21.1	21.1	105	105	70-130	.05	20	
Ethylbenzene	ug/L	<0.096	20	20	19.6	19.3	98	96	70-130	2	20	
Hexachloro-1,3-butadiene	ug/L	<0.50	20	20	22.8	22.6	114	113	70-130	1	20	
Isopropylbenzene (Cumene)	ug/L	<0.068	20	20	21.1	20.8	105	104	70-130	1	20	
m&p-Xylene	ug/L	<0.12	40	40	40.7	40.0	102	100	70-130	2	20	
Methyl methacrylate	ug/L	<0.94	100	100	116	117	116	117	70-130	.4	20	
Methyl-tert-butyl ether	ug/L	<0.078	20	20	18.8	19.2	94	96	70-130	2	20	
Methylene Chloride	ug/L	<2.0	20	20	21.2	24.7	105	122	70-130	15	20	
n-Butylbenzene	ug/L	<0.11	20	20	19.8	19.4	99	97	70-130	2	20	
n-Propylbenzene	ug/L	<0.077	20	20	19.7	18.7	99	94	70-130	5	20	
Naphthalene	ug/L	<0.50	20	20	22.1	23.1	110	115	70-130	4	20	
o-Xylene	ug/L	<0.073	20	20	20.2	20.0	101	100	70-130	1	20	
p-Isopropyltoluene	ug/L	<0.25	20	20	21.1	20.4	105	102	70-130	3	20	
sec-Butylbenzene	ug/L	<0.25	20	20	20.7	20.1	103	100	70-130	3	20	
Styrene	ug/L	0.29J	20	20	21.3	21.2	105	104	70-130	.5	20	
tert-Butylbenzene	ug/L	<0.25	20	20	20.5	19.5	103	97	70-130	5	20	
Tetrachloroethene	ug/L	<0.099	20	20	21.2	21.5	106	108	70-130	1	20	
Toluene	ug/L	<0.11	20	20	20.2	19.8	101	99	70-130	2	20	
trans-1,2-Dichloroethene	ug/L	<0.15	20	20	19.1	18.7	96	94	70-130	2	20	
trans-1,3-Dichloropropene	ug/L	<0.25	20	20	21.8	21.7	109	108	70-130	.7	20	
trans-1,4-Dichloro-2-butene	ug/L	<5.0	50	50	50.8	51.3	102	103	70-130	.9	20	
Trichloroethene	ug/L	<0.084	20	20	19.7	19.9	98	99	70-130	1	20	
Trichlorofluoromethane	ug/L	<0.12	20	20	20.8	21.1	104	105	70-130	2	20	
Vinyl chloride	ug/L	<0.20	20	20	20.8	21.3	104	107	70-130	3	20	
Xylene (Total)	ug/L	<0.20	60	60	60.9	60.0	101	100	70-130	2	20	
1,2-Dichloroethane-d4 (S)	%.						90	90	75-125			

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QUALITY CONTROL DATA

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1672175 1672176

Parameter	Units	10265571001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4-Bromofluorobenzene (S)	%.						94	91	75-125			pH
Toluene-d8 (S)	%.						99	99	75-125			

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QUALIFIERS

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
R1	RPD value was outside control limits.
pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Bloom Enterprises 1520-01 REV1
Pace Project No.: 10265571

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10265571001	**Bloom Tap**	EPA 524.2	MSV/26984		
10265571002	**Trip Blank**	EPA 524.2	MSV/26984		

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CHAIN OF CUSTODY RECORD

Omega COCID 58	PAGE: 1	OF: 1

ADDRESS
Alaska Analytical Laboratory
1956 Richardson Highway
North Pole, Alaska 99705
TEL: (907) 488-1271
FAX: (907) 488-0772
Website: www.alaska-analytical.com

Project: Bloom Enterprises 1520-01

10265571

Please Include Email Address of Report Reciplent Whenever Possible!!!

SUB CONTRACTOR: Pace Analytical MN
COMPANY: Pace Analytical Services
ADDRESS: 1700 Elm Street SE
CITY, STATE, ZIP: Minneapolis, MN 55414
PHONE: (612) 607-6363
FAX:
ACCOUNT #:
EMAIL:

SPECIAL INSTRUCTIONS / COMMENTS:
Please analyze these samples on a standard turn. After analysis, the samples do not need to be returned and can be disposed per your standard laboratory practices. Thank you!
Please report to MDL, client would like an EDD (results in Excel)

ITEM #	SAMPLE ID	Client Sample ID	Bottle Type	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	VOCs	COMMENTS Methanol Preserved Weights HOT Sample Notation Additional Sample Description, etc.
								Please Use Client ID.
1	1404001-001A	Bloom Tap	VOCHCL	Water	4/30/2014 9:50:00 AM	9	√	Unpreserved -001
2	1404001-002A	Trip Blank	VOCHCL	Water	4/30/2014 9:50:00 AM	2	√	-002

Relinquished By	Date	Time	Received By	Date	Time
Kelley Lanzy	4/30/2014	10:55 AM	[illegible]	5/1/14	7:20
[illegible]	5/1/14	1422	[illegible]	5-1-14	1422

TAT: Standard ☑ RUSH Next BD ☐ 2nd BD ☐ 3rd BD ☐
Note: RUSH requests will incur surcharges!

REPORT TRANSMITTAL DESIRED:
☐ HARDCOPY (extra cost) ☐ FAX ☑ EMAIL ☐ ONLINE

FOR LAB USE ONLY
Temp of samples 3.2 °C Attempt to Cool? Ice
Comments:

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 28Feb2014 Page 1 of 1
	Document No.: F-MN-L-213-rev.09	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Masica Analytical

Project #: WO#: 10265571

10265571

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ SpeeDee ☐ Other:

Tracking Number:

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: Temp Blank? ☑ Yes ☐ No

Thermom. Used: ☐ B88A9130516413 ☐ B88A912167504 ☑ B88A9132521491 Type of Ice: ☐ Wet ☑ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 3.2 Cooler Temp Corrected (°C): 3.2 Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C Correction Factor: true Date and Initials of Person Examining Contents: 5-1-14/

				Comments:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5. Yes 5/2/14
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: LAT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes	☐ No	☑ N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	Yes 5/2/14 ☐ Yes	☑ No	☐ N/A	14. 2 vials of Bloom Tap
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	15.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased): ~~Not Pace~~ 5/2/14				

Field Data Required? ☐ Yes ☐ No

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: Date/Time:

Comments/Resolution:

Containers were received from Pace, two of nine VOA vials for Bloom Tap were received w/ headspace - not used for analysis. Samples analyzed within seven day hold for unpreserved containers. 5/2/14

Project Manager Review: Date: 5/2/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

ALASKA ANALYTICAL LABORATORY

CUSTODY SEAL

SIGNATURE Kelley Lovejoy

DATE 4/30/14

MSP

Goldstreak

027 FAI 1073 2805

AS	132	SEA	1725
AS	036	MSP	0650

Date: 30 APR 14

Pieces: 1

Total Weight: 36

Piece Weight:

Box Number: 1

SHIPPER PHONE #: 9074881271

CONSIGNEE PHONE #: 6126071700

Goldstreak Goldstreak

Alaska Air Cargo

Laboratory Data Review Checklist

Completed by:	Melissa S Shippey		
Title:	Senior Scientst	Date:	05 12 2014
CS Report Name:	Bloom Enterprises	Report Date:	05 08 2014
Consultant Firm:	Travis/Peterson Environmental Consulting, Inc.		
Laboratory Name:	Pace Analytical Services	Laboratory Report Number:	10265571
ADEC File Number:	100.38.134	ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

(●) Yes ( ) No ( ) NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

Samples recieved and logged by AAL, repacked and shipped to Pace, Minnesota for analysis.

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

b. Correct analyses requested?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

○ Yes ○ No ◉ NA (Please explain) Comments:

Samples were unpreserved by method specification. Samples were analyzed within the 7 day required hold time.

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

◉ Yes ○ No ○ NA (Please explain) Comments:

samples were in good condition.

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

○ Yes ○ No ◉ NA (Please explain) Comments:

no discrepancies

e. Data quality or usability affected? (Please explain)

Comments:

n/a

4. Case Narrative

a. Present and understandable?

◉ Yes ○ No ○ NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

◉ Yes ○ No ○ NA (Please explain) Comments:

Analyte recovery in LCS and MS/MSD was below QC limits. concentrations of bromomethane and chloroethane
may be biased low.

c. Were all corrective actions documented?

○ Yes ○ No ◉ NA (Please explain) Comments:

none taken

d. What is the effect on data quality/usability according to the case narrative?

Comments:

results for those parameters are likely biased low.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

b. All applicable holding times met?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

c. All soils reported on a dry weight basis?

( ) Yes ( ) No (●) NA (Please explain) Comments:

water samples only

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

e. Data quality or usability affected? (Please explain)

Comments:

n/a

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected? Comments:

n/a

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

v. Data quality or usability affected? (Please explain) Comments:

n/a

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

○ Yes ◉ No ○ NA (Please explain) Comments:

no metals analyses performed

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

○ Yes ◉ No ○ NA (Please explain) Comments:

Percent recovery for bromomethane on both the LCS and MS/MSD samples was outside control limits. Recovery was below the lowest limit acceptable for the method.

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

○ Yes ◉ No ○ NA (Please explain) Comments:

The RPD for chloroethane was outside acceptance limits on the MS/MSD sample.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

reported results for bromomethane are likely biased low. Chloroethane results in LCS were good.

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

vii. Data quality or usability affected? (Please explain) Comments:

data is still considered usable. Bromomethane and chloroethane are not contaminants of concern for the site under investigation.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

(●) Yes ( ) No ( ) NA (Please explain) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

( ) Yes ( ) No (●) NA (Please explain) Comments:

none failed

iv. Data quality or usability affected? (Use the comment box to explain.). Comments:

n/a

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

(●) Yes ( ) No ( ) NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

( ) Yes (●) No ( ) NA (Please explain.) Comments:

only one sample cooler was used to ship samples.

iii. All results less than PQL?

◉ Yes ○ No ○ NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?

Comments:

n/a

v. Data quality or usability affected? (Please explain.)

Comments:

n/a

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

○ Yes ◉ No ○ NA (Please explain) Comments:

a primary sample and trip blank were analyzed. no duplicates in this sampling event.

ii. Submitted blind to lab?

○ Yes ○ No ◉ NA (Please explain.) Comments:

iii. Precision - All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

○ Yes ○ No ◉ NA (Please explain) Comments:

there are no RPDs for this report since only a primary sample was collected.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

○ Yes ○ No ◉ NA (Please explain) Comments:

f. Decontamination or Equipment Blank (if applicable)

○ Yes ○ No ◉ NA (Please explain) Comments:

no decon blank collected. Bloom sample collected straight from the tap.

i. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain) Comments:

ii. If above PQL, what samples are affected?

Comments:

iii. Data quality or usability affected? (Please explain.)

Comments:

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

○ Yes ○ No ◉ NA (Please explain) Comments:

Reset Form