November 23, 2016

Mr. John R. Strang, P.E.
Environmental Engineer 2
New York State Department of Environmental Conservation
Region 4
1130 South Westcott Road
Schenectady, New York 12306-2014

Via Electronic Mail

Re: Clean Fill Sampling
ALCO – BCP Sites C447042, C447043
Schenectady, NY

Dear Mr. Strang:

On behalf of Maxon ALCO Holdings, LLC, Barton & Loguidice, Inc. (B&L) has prepared the following report summarizing the sampling performed on October 28, 2016 to determine the extent with which the proposed 10,000 cubic yards of imported sand, and approximately 600 cubic yards of mulch is permissible for on-site use as fill on Parcels A and B.

The New York State Department of Environmental Conservation (NYSDEC) Program Policy, Technical Guidance for Site Investigation and Remediation (DER-10) provides the scope of activities necessary for the investigation of sites with historic environmental conditions similar to the project site. DER 10 Section 5.4(e)(4) provides compliance criteria to permit on-site use of the soil which is imported from off-site and Table 5.4(e) 10 provides testing requirements for sampling imported soils. The sampling activities carried out as part of this limited soil survey were in accordance with the sampling requirements provided in DER 10.

Summary of Activities

Soil sampling of the proposed sand and mulch was conducted on October 28, 2016. Samples were collected from each side of each stockpile of sand and mulch.

Based on the quantity of sand, the need for subsequent use as on-site fill necessitated the collection of twelve (12) soil samples (8 discrete, and 4 composite) to characterize the soil conditions. Discrete samples were collected from each of the eight (8) locations for Volatile Organic Compound (VOC) analysis. Four (4) composite samples were collected by combining soil from samples TS-58 through TS-65 and analyzed for SVOCs, Inorganics, and PCBs/Pesticides per DER-10 Table 5.4(e) 10.

Based on the quantity of mulch, the need for subsequent use as on-site fill necessitated the collection of eight (8) soil samples (6 discrete, and 2 composite) to characterize the soil conditions. Discrete samples were collected from each of the six (6) locations for Volatile Organic Compound (VOC) analysis. Two (2) composite samples were collected by combining soil from samples Mulch-01 through Mulch-06 and analyzed for SVOCs, Inorganics, and PCBs/Pesticides per DER-10 Table 5.4(e) 10.

10 Airline Drive • Suite 200 • Albany, New York 12205
Telephone: 518-218-1801 • Facsimile: 518-218-1805 • www.BartonandLoguidice.com

Summary of Sample Results

A total of twelve (12) soil samples were collected from the stockpiled sand. Detections for the parameters analyzed for are summarized on the attached table. Parameters analyzed for were detected in twelve (12) of the twelve (12) samples collected. Parameters detected in eight (8) of the twelve (12) samples were methylene chloride and/or acetone. Both methylene chloride and acetone detections were at relatively low concentrations (25.2 – 69.4 ug/kg); both compounds are recognized as common laboratory contaminant/artifacts, to which their detection is attributed. Of the remaining parameters analyzed for detections were reported in four (4) of the twelve (12) samples collected. None of these parameters were detected at concentrations above their respective allowable constituent level.

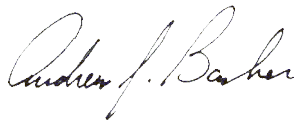
A total of eight (8) soil samples were collected from the stockpiled mulch. Detections for the parameters analyzed for are summarized on the attached table. Parameters analyzed for were detected in eight (8) of the eight (8) samples collected. Parameters detected in six (6) of the eight (8) samples were methylene chloride. Methylene chloride detections were at relatively low concentrations (173-324 ug/kg); both compounds are recognized as common laboratory contaminant/artifacts, to which their detection is attributed. Of the remaining parameters analyzed for detections were reported in four (4) of the eight (8) samples collected. None of these parameters were detected at concentrations above their respective allowable constituent level.

Information from this report is included in each of the attached NYSDEC Request to Import Fill forms. Laboratory results for the soil samples are also attached to this letter.

Please feel free to contact the undersigned at (518) 218-1801 with any questions or need for additional information.

Very truly yours,

BARTON & LOGUIDICE, INC.



Andrew J. Barber
Sr. Environmental Consultant

AJB/ojf
Enclosure
cc: Tom Owens, Esq. - Maxon ALCO Holdings LLC
Steve Luciano - Maxon ALCO Holdings LLC
Paul Fallati - Maxon ALCO Holdings LLC
Dean Sommer, Esq. - Young Sommer
Rich Ostrov - NYSDEC Region 4, OGC
Justin Deming - NYSDOH

Sand Sampling Detection Summary														
COMPOUND	Restricted Residential	UNIT	SC-25	SC-26	SC-27	SC-28	S-58	S-59	S-60	S-61	S-62	S-63	S-64	S-65
			10/28/2016											
Metals														
Arsenic	16	mg/kg	3.3	3.4	3.5	3.2	-	-	-	-	-	-	-	-
Barium	400	mg/kg	29.9	31.6	27.3	29.4	-	-	-	-	-	-	-	-
Beryllium	47	mg/kg	0.38	0.39	0.37	3.2	-	-	-	-	-	-	-	-
Chromium	180	mg/kg	7.7	8.1	7.6	7.3	-	-	-	-	-	-	-	-
Copper	270	mg/kg	15.5	15.7	15.0	15.2	-	-	-	-	-	-	-	-
Lead	400	mg/kg	6.1	6.0	5.5	5.5	-	-	-	-	-	-	-	-
Manganese	2,000	mg/kg	274	284	282	301	-	-	-	-	-	-	-	-
Nickel	310	mg/kg	11.9	12.1	11.8	11.3	-	-	-	-	-	-	-	-
Zinc	10,000	mg/kg	37.6	38.3	38.1	36.5	-	-	-	-	-	-	-	-
Pesticides														
4,4'-DDD	13,000	ug/kg	ND	7.7	ND	ND	-	-	-	-	-	-	-	-
4,4'-DDE	8,900	ug/kg	ND	15.1	ND	ND	-	-	-	-	-	-	-	-
4,4'-DDT	7,900	ug/kg	ND	4.1	ND	ND	-	-	-	-	-	-	-	-
VOCs														
Methylene Chloride	50	ug/kg	-	-	-	-	30.1	28.5	30.0	32.5	43.0	25.5	25.2	26.0
Acetone	50	ug/kg	-	-	-	-	ND	36.1	ND	ND	69.4	45.9	ND	28.8

NOTE:

SC-25 is a composite sample from S-58, and S-59 samples
SC-26 is a composite sample from S-60, and S-61 samples
SC-27 is a composite sample from S-62 and S-63 samples
SC-28 is a composite sample from S-64 and S-65 samples
1. Appendix 5-Allowable Constituent Levels for Imported Fill or Soil Subdivision 5.4(e) of DER-10 for Restricted Residential Use.
- Not analyzed for.
ND – Not Detected.
Emboldened values indicate exceedances.

Mulch Sampling Detection Summary										
COMPOUND	Restricted Residential	UNIT	Mulch-01	Mulch-02	Mulch-03	Mulch-04	Mulch-05	Mulch-06	Mulch-C01	Mulch-C02
			10/28/2016							
Metals										
Arsenic	16	mg/kg	-	-	-	-	-	-	3.6	4.0
Barium	400	mg/kg	-	-	-	-	-	-	90.3	92.1
Cadmium	0.57	mg/kg	-	-	-	-	-	-	0.57	0.70
Chromium	180	mg/kg	-	-	-	-	-	-	6.7	8.0
Copper	270	mg/kg	-	-	-	-	-	-	26.0	30.3
Lead	400	mg/kg	-	-	-	-	-	-	20.7	25.8
Manganese	2,000	mg/kg	-	-	-	-	-	-	526	598
Nickel	310	mg/kg	-	-	-	-	-	-	6.6	7.2
Zinc	10,000	mg/kg	-	-	-	-	-	-	84.9	131
Pest/Herb										
Aldrin	97	ug.kg	-	-	-	-	-	-	81.7	ND
2,4-D	-	ug/kg	-	-	-	-	-	-	42.9	ND
2,4,5-T	-	ug/kg	-	-	-	-	-	-	72.8	25.1
VOCs										
Methylene Chloride	50	ug/kg	239	298	173	323	314	324	-	-
Napthalene	1,200	ug/kg	40.6	ND	ND	51.6	ND	ND	-	-

NOTE:

Mulch-C01 is a composite sample from Mulch-01, Mulch-02, and Mulch-03 samples.
Mulch-C02 is a composite sample from Mulch-04, Mulch-05, and Mulch-06 samples.
1. Appendix 5-Allowable Constituent Levels for Imported Fill or Soil Subdivision 5.4(e) of DER-10 for Restricted Residential Use.
- Not analyzed for or no associated SCO.
ND – Not Detected.
Emboldened values indicate exceedances.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Restricted Residential Use

Have Ecological Resources been identified? No

Is this soil originating from the site? No

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? No

Does it contain less than 10%, by weight, material that would pass a size 80 sieve? No

Is this virgin material from a permitted mine or quarry? No

Is this material recycled concrete or brick from a DEC registered processing facility? No

How many cubic yards of soil will be imported/reused? >1000

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Soil sampling of the proposed sand was conducted on October 28, 2016. Samples were collected from each side of the stockpile of sand. Based on the quantity of sand, the need for subsequent use as on-site fill necessitated the collection of twelve (12) soil samples (8 discrete, and 4 composite) to characterize the soil conditions. Discrete samples were collected from each of the eight (8) locations for Volatile Organic Compound (VOC) analysis. Four (4) composite samples were collected by combining soil from samples TS-58 through TS-65 and analyzed for SVOCs, Inorganics, and PCBs/Pesticides per DER-10 Table 5.4(e) 10.

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results and attach evaluation tables (compare to DER-10, Appendix 5):

A total of twelve (12) soil samples were collected from the stockpiled sand. Detections for the parameters analyzed for are summarized on the attached table. Parameters analyzed for were detected in twelve (12) of the twelve (12) samples collected. Parameters detected in eight (8) of the twelve (12) samples were methylene chloride and/or acetone. Both methylene chloride and acetone detections were at relatively low concentrations (25.2 – 69.4 ug/kg); both compounds are recognized as common laboratory contaminant/artifacts, to which their detection is attributed. Of the remaining parameters analyzed for detections were reported in four (4) of the twelve (12) samples collected. None of these parameters were detected at concentrations above their respective allowable constituent level.

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Constantine - Halfmoon Pit

Location where fill was obtained:

Button Road, Halfmoon

Identification of any state or local approvals as a fill source:

Permit ID 5-4138-00004/00003

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Sand and Gravel Pit

Provide a list of supporting documentation included with this request:

Detection Summary Table
Laboratory Analytical Results

Sand Sampling Detection Summary														
COMPOUND	Restricted Residential	UNIT	SC-25	SC-26	SC-27	SC-28	S-58	S-59	S-60	S-61	S-62	S-63	S-64	S-65
			10/28/2016											
Metals														
Arsenic	16	mg/kg	3.3	3.4	3.5	3.2	-	-	-	-	-	-	-	-
Barium	400	mg/kg	29.9	31.6	27.3	29.4	-	-	-	-	-	-	-	-
Beryllium	47	mg/kg	0.38	0.39	0.37	3.2	-	-	-	-	-	-	-	-
Chromium	180	mg/kg	7.7	8.1	7.6	7.3	-	-	-	-	-	-	-	-
Copper	270	mg/kg	15.5	15.7	15.0	15.2	-	-	-	-	-	-	-	-
Lead	400	mg/kg	6.1	6.0	5.5	5.5	-	-	-	-	-	-	-	-
Manganese	2,000	mg/kg	274	284	282	301	-	-	-	-	-	-	-	-
Nickel	310	mg/kg	11.9	12.1	11.8	11.3	-	-	-	-	-	-	-	-
Zinc	10,000	mg/kg	37.6	38.3	38.1	36.5	-	-	-	-	-	-	-	-
Pesticides														
4,4'-DDD	13,000	ug/kg	ND	7.7	ND	ND	-	-	-	-	-	-	-	-
4,4'-DDE	8,900	ug/kg	ND	15.1	ND	ND	-	-	-	-	-	-	-	-
4,4'-DDT	7,900	ug/kg	ND	4.1	ND	ND	-	-	-	-	-	-	-	-
VOCs														
Methylene Chloride	50	ug/kg	-	-	-	-	30.1	28.5	30.0	32.5	43.0	25.5	25.2	26.0
Acetone	50	ug/kg	-	-	-	-	ND	36.1	ND	ND	69.4	45.9	ND	28.8

NOTE:

SC-25 is a composite sample from S-58, and S-59 samples
SC-26 is a composite sample from S-60, and S-61 samples
SC-27 is a composite sample from S-62 and S-63 samples
SC-28 is a composite sample from S-64 and S-65 samples
1. Appendix 5-Allowable Constituent Levels for Imported Fill or Soil Subdivision 5.4(e) of DER-10 for Restricted Residential Use.
- Not analyzed for.
ND – Not Detected.
Emboldened values indicate exceedances.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Restricted Residential Use

Have Ecological Resources been identified? No

Is this soil originating from the site? No

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? No

Does it contain less than 10%, by weight, material that would pass a size 80 sieve? No

Is this virgin material from a permitted mine or quarry? No

Is this material recycled concrete or brick from a DEC registered processing facility? No

How many cubic yards of soil will be imported/reused? 500-800

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Soil sampling of the proposed mulch was conducted on October 28, 2016. Samples were collected from each side of the stockpile of mulch. Based on the quantity of mulch, the need for subsequent use as on-site fill necessitated the collection of eight (8) soil samples (6 discrete, and 2 composite) to characterize the soil conditions. Discrete samples were collected from each of the six (6) locations for Volatile Organic Compound (VOC) analysis. Two (2) composite samples were collected by combining soil from samples Mulch-01 through Mulch-06 and analyzed for SVOCs, Inorganics, and PCBs/Pesticides per DER-10 Table 5.4(e) 10.

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results and attach evaluation tables (compare to DER-10, Appendix 5):

A total of eight (8) soil samples were collected from the stockpiled mulch. Detections for the parameters analyzed for are summarized on the attached table. Parameters analyzed for were detected in eight (8) of the eight (8) samples collected. Parameters detected in six (6) of the eight (8) samples were methylene chloride. Methylene chloride detections were at relatively low concentrations (173-324 ug/kg); both compounds are recognized as common laboratory contaminant/artifacts, to which their detection is attributed. Of the remaining parameters analyzed for detections were reported in four (4) of the eight (8) samples collected. None of these parameters were detected at concentrations above their respective allowable constituent level.

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Clover-Leaf Nurseries Inc.

Location where fill was obtained:

52 East Elmwood Road, Albany NY 12204

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Nursery

Provide a list of supporting documentation included with this request:

Detection Summary Table
Laboratory Analytical Results

Mulch Sampling Detection Summary										
COMPOUND	Restricted Residential	UNIT	Mulch-01	Mulch-02	Mulch-03	Mulch-04	Mulch-05	Mulch-06	Mulch-C01	Mulch-C02
			10/28/2016							
Metals										
Arsenic	16	mg/kg	-	-	-	-	-	-	3.6	4.0
Barium	400	mg/kg	-	-	-	-	-	-	90.3	92.1
Cadmium	0.57	mg/kg	-	-	-	-	-	-	0.57	0.70
Chromium	180	mg/kg	-	-	-	-	-	-	6.7	8.0
Copper	270	mg/kg	-	-	-	-	-	-	26.0	30.3
Lead	400	mg/kg	-	-	-	-	-	-	20.7	25.8
Manganese	2,000	mg/kg	-	-	-	-	-	-	526	598
Nickel	310	mg/kg	-	-	-	-	-	-	6.6	7.2
Zinc	10,000	mg/kg	-	-	-	-	-	-	84.9	131
Pest/Herb										
Aldrin	97	ug.kg	-	-	-	-	-	-	81.7	ND
2,4-D	-	ug/kg	-	-	-	-	-	-	42.9	ND
2,4,5-T	-	ug/kg	-	-	-	-	-	-	72.8	25.1
VOCs										
Methylene Chloride	50	ug/kg	239	298	173	323	314	324	-	-
Napthalene	1,200	ug/kg	40.6	ND	ND	51.6	ND	ND	-	-

NOTE:

Mulch-C01 is a composite sample from Mulch-01, Mulch-02, and Mulch-03 samples.
Mulch-C02 is a composite sample from Mulch-04, Mulch-05, and Mulch-06 samples.
1. Appendix 5-Allowable Constituent Levels for Imported Fill or Soil Subdivision 5.4(e) of DER-10 for Restricted Residential Use.
- Not analyzed for or no associated SCO.
ND – Not Detected.
Emboldened values indicate exceedances.

Pace Analytical e-Report

***Issuance of this report is prior to full data package.**

Report prepared for:
BARTON AND LOGUIDICE
10 AIRLINE DRIVE
ALBANY, NY 12205
CONTACT: Nathan Shaffer

Project ID: ALCO
Sampling Date(s): October 28, 2016
Lab Report ID: 16110028
Client Service Contact: Nick Nicholas (518) 346-4592

Analysis Included:
VOCs E8260 - Sub Pace PA
SVOCs E8270 - Sub Pace PA
PCB Analysis (Solid)
Pesticide E8081 - Sub Pace PA
Metals E6010C - Sub Pace PA
Mercury E7471A - Sub Pace PA
Herbicides E8151A - Sub Pace LI
Cyanide E9012B - Sub Pace PA
Hexavalent Chromium E7196 - Sub Pace PA
Trivalent Cr - Sub Pace PA
Percent Total Solid

Roy Smith
Technical Director

Certifications: New York (EPA: NY00906, ELAP: 11078), New Jersey (NY026), Connecticut (PH-0337), Massachusetts (M-NY906), Virginia (460241)

Pace Analytical Services| 2190 Technology Drive | Schenectady, NY 12308
Phone: 518.346.4592 | internet: www.pacelabs.com

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Table of Contents

QUALIFIERS

Definitions

B - Denotes analyte observed in associated method blank or extraction blank. Analyte concentration should be considered as estimated.

D - Surrogate was diluted. The analysis of the sample required a dilution such that the surrogate concentration was diluted outside the laboratory acceptance criteria.

E - Denotes analyte concentration exceeded calibration range of instrument. Sample could not be reanalyzed at secondary dilution due to insufficient sample amount, quick turn-around request, sample matrix interference or hold time excursion. Concentration result should be considered as estimated.

J - Denotes an estimated concentration. The concentration result is greater than or equal to the Method Detection Limit (MDL) but less than the Practical Quantitation Limit (PQL).

MDL – Adjusted Method Detection Limit.

P - Indicates relative percent difference (RPD) between primary and secondary gas chromatograph (GC) column analysis exceeds 40 % or indicates percent difference (PD) between primary and secondary gas chromatograph (GC) column analysis exceeds 25 %.

PQL – Practical Quantitation Limit. PQLs are adjusted for sample weight/volume and dilution factors.

RL - Reporting Limit Denotes lowest analyte concentration reportable for the sample based on regulatory or project specific limits.

U - Denotes analyte not detected at concentration greater than the Practical Quantitation Limit (PQL) or the Reporting Limit (RL) or the Method Detection Limit (MDL) as applicable.

Z - Chromatographic interference due to polychlorinated biphenyl (PCB) co-elution.

* - Value not within control limits.

SAMPLE CHAIN OF CUSTODY

Pace Analytical™
www.pacelabs.com

New York Office
2190 Technology Dr.
Schenectady, NY 12308
(518) 346-4592

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completer <16110028P1>

16-100281

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Barton and Loguidice DPC	Report To:	Andy Barber	Attention:	Accounts Payable
Address:	10 Airline Drive, Suite 200	Copy To:	Nathan Shaffer	Company Name:	Barton and Loguidice, DPC
	Albany, NY 12205			Address:	443 Electronics Parkway Liverpool NY, 13088
Email To:	nshaffer@bartonandloguidice.com	Purchase Order No.:		Pace Quote Reference:	00014909
Phone:	518-218-1801 Fax: 518-218-1805	Project Name:	ALCO	Pace Project Manager:	Nick Nicholas
Requested Due Date/TAT:	Standard	Project Number:	1368.001.001	Pace Profile #:	

REGULATORY AGENCY

NPDES ☐ GROUND WATER ☐ DRINKING WATER
UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

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

ITEM #	SAMPLE ID	MATRIX CODE	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	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: * VOCs By 8260	* SVOC By 8270	* Herbicides, Pesticides	* PCBs by 8260	* Full Metals	* Mercury, Chromium	* Cyanide	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.	*DER-10 - Appendix 5 - Allowable Constituent Levels for Imported Fill or Soil Subdivision 5.4(e)
1	Mulch-01	SL	G			10/28	9:05		1	X (4oz)									X									AT29590	
2	Mulch-02	SL	G			10/28	9:10		1	X (4oz)									X									AT29591	
3	Mulch-03	SL	G			10/28	9:15		1	X (4oz)									X									AT29592	
4	Mulch-04	SL	G			10/28	9:20		1	X (4oz)									X									AT29593	
5	Mulch-05	SL	G			10/28	9:25		1	X (4oz)									X									AT29594	
6	Mulch-06	SL	G			10/28	9:30		1	X (4oz)									X									AT29595	
7	~~Mulch-07~~	SL	G						1	X (4oz)									X										
8	Mulch-C01	SL	C			10/28	9:15		3	X (2-8OZ 1-4OZ)										X	X	X	X	X	X			AT29596	
9	Mulch-C02	SL	C			10/28	9:30		3	X (2-8OZ 1-4OZ)										X	X	X	X	X	X			AT29597	
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
Standard Deliverables		10/28	11:30	PACE	10/28/16	11:30	12.8	Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nathan Shaffer

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY): 10/28/2016

e-File(ALLQ020rev.4,29Mar06)22Jun2005

Pace Analytical™
www.pacelabs.com

New York Office
2190 Technology Dr.
Schenectady, NY 12308
(518) 346-4592

CHAIN-OF-CUSTODY / Analytical Request Document

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

<16110028P2>

16110028

Page: 2 of 2

Section A — Required Client Information:

Company:	Barton and Loguidice DPC
Address:	10 Airline Drive, Suite 200
	Albany, NY 12205
Email To:	nshaffer@bartonandloguidice.com
Phone:	518-218-1801 Fax: 518-218-1805
Requested Due Date/TAT:	Standard

Section B — Required Project Information:

Report To:	Andy Barber
Copy To:	Nathan Shaffer
Purchase Order No.:	
Project Name:	ALCO
Project Number:	1368.001.001

Section C — Invoice Information:

Attention:	Accounts Payable
Company Name:	Barton and Loguidice, DPC
Address:	443 Electronics Parkway Liverpool NY, 13088
Pace Quote Reference:	00014909
Pace Project Manager:	Nick Nicholas
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER____

Section D — Required Client Information

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE	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	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: * VOCs By 8260	* SVOC By 8270	* Herbicides, Pesticides	* PCBs by 8260	* Full Metals	* Mercury: Cromium:	* Cyanide	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	S-58	SL	G			10/28	9:35		1	X (4oz)								x								AT29598
2	S-59	SL	G				9:36		1	X (4oz)								x								AT29599
3	S-60	SL	G				9:37		1	X (4oz)								x								AT29600
4	S-61	SL	G				9:38		1	X (4oz)								x								AT29601
5	SC-25	SL	C				9:36		3	X (2-8OZ 1-4OZ)									x	x	x	x	x	x		AT29602
6	SC-26	SL	C				9:38		3	X (2-8OZ 1-4OZ)									x	x	x	x	x	x		AT29603
7	S-62	SL	G				9:40		1	X (4oz)								x								AT29604
8	S-63	SL	G				9:41		1	X (4oz)								x								AT29605
9	S-64	SL	G				9:42		1	X (4oz)								x								AT29606
10	S-65	SL	G				9:43		1	X (4oz)								x								AT29607
11	SC-27	SL	C				9:41		3	X (2-8OZ 1-4OZ)									x	x	x	x	x	x		AT29608
12	SC-28	SL	C			↓	9:43		3	X (2-8OZ 1-4OZ)									x	x	x	x	x	x		AT29609

*DER-10 - Appendix 5 - Allowable Constituent Levels for Imported Fill or Soil Subdivision 5.4(e)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Standard Deliverables		10/28	11:30	PACE	10/28/16	11:30

SAMPLE CONDITIONS

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nathan Shaffer

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 10/28/16

e-File(ALLQ020rev.4,29Mar06)22Jun2005

Sample Condition Upon Receipt

CLIENT NAME: ~~BTC~~ BAR-ALB (R 11/1/16)

PROJECT : ALCO

COURIER: FedEx ☐ UPS ☐ Client ☒ Pace ☐ Other ☐

TRACKING # N/A

CUSTODY SEAL PRESENT: Yes ☐ No ☒ INTACT: Yes ☐ No ☐ N/A ☒

PACKING MATERIAL: Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other ☐ ICE USED: Wet ☒ Blue ☐ None ☐

THERMOMETER USED: #164 ☐ IR Gun 03 ☒ #160239773 ☐ #160239773-PRB ☐ COOLER TEMPERATURE (°C): 12.8 (IR)

BIOLOGICAL TISSUE IS FROZEN: Yes ☐ No ☐ N/A ☒

COMMENTS: Temperature is Acceptable? ☒Yes ☐No

Chain of Custody Present:	☒Yes	☐No		1.
Chain of Custody Filled Out:	☒Yes	☐No		2.
Chain of Custody Relinquished:	☒Yes	☐No		3.
Sampler Name / Signature on COC:	☒Yes	☐No		4.
Samples Arrived within Hold Time:	☒Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No		6.
Rush Turn Around Time Requested:	☐Yes	☒No		7.
Sufficient Volume:	☒Yes	☐No		8.
Correct Containers Used:	☒Yes	☐No		9.
- Pace Containers Used:	☒Yes	☐No		
Containers Intact:	☒Yes	☐No		10.
Filtered volume received for Dissolved tests:	☐Yes	☐No	☒N/A	11.
Sample Labels match COC: - Includes date/time/ID/Analysis	☒Yes	☐No		12.
All containers needing preservation have been checked:	☐Yes	☐No	☒N/A	13. Soil samples for 8260 analysis not preserved per collection method 5035 guidance -
All containers needing preservation are in compliance with EPA recommendation: - Exceptions that are not checked: TOC, VOA, Subcontract Analyses	☐Yes	☒No	☐N/A	Initial when completed: N/A Lot # of added preservative: N/A
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	14.
Trip Blank Present:	☐Yes	☐No	☒N/A	15.
Trip Blank Custody Seals Present:	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot #: N/A				

Sample Receipt form filled in: NMG 11/9/16

Line-Out (Includes Copying Shipping Documents and verifying sample pH): AA 11/1/16

Log In (Includes notifying PM of any discrepacies and documenting in LIMS): AJB 11/1/16

Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook): AA 11/1/16

SAMPLE RECEIPT

SAMPLE RECEIPT REPORT
16110028

Pace Analytical Services
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

CLIENT: BARTON AND LOGUIDICE
PROJECT: ALCO
LRF: 16110028
REPORT: DATA PACKAGE
EDD: YES
LRF TAT: 7 DAYS

RECEIVED DATE: 10/28/2016 11:30
SHIPPED VIA: DROP OFF [1,2]
SHIPPING ID: N. SHAFFER/ BAR-ALB
NUMBER OF COOLERS: 1
CUSTODY SEAL INTACT: NA
COOLER STATUS: CHILLED
TEMPERATURE(S): [5] 12.8 (IR) °C

SAMPLE SEALS INTACT: NA
SAMPLES PRESERVED PER METHOD GUIDANCE: YES
[3] **SAMPLES REC'D IN HOLDTIME:** YES
DISPOSAL: BY LAB (45 DAYS)
COC DISCREPANCY: NO

COMMENTS:
SOIL SAMPLE FOR 8260 ANALYSES NOT PRESERVED PER METHOD 5035 GUIDANCE.

3

CLIENT ID (LAB ID)	TAT-DUE Date [4]	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
MULCH-01 (AT29590)	7 DAYS 11-08-16	10/28/2016 09:05	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
MULCH-02 (AT29591)	7 DAYS 11-08-16	10/28/2016 09:10	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
MULCH-03 (AT29592)	7 DAYS 11-08-16	10/28/2016 09:15	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
MULCH-04 (AT29593)	7 DAYS 11-08-16	10/28/2016 09:20	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
MULCH-05 (AT29594)	7 DAYS 11-08-16	10/28/2016 09:25	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
MULCH-06 (AT29595)	7 DAYS 11-08-16	10/28/2016 09:30	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
MULCH-C01 (AT29596)	7 DAYS 11-08-16	10/28/2016 09:15	Soil	8081	PEST - Sub - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:15	Soil	Cyanide - Sub - Pace	Cyanide - Sub - Pace	
	7 DAYS 11-08-16	10/28/2016 09:15	Soil	EPA 8082A	PCB Analysis (Solid)	
	7 DAYS 11-08-16	10/28/2016 09:15	Soil	Herbicides E8151A	Herbicides E8151A - Sub Pace LI	
	7 DAYS 11-08-16	10/28/2016 09:15	Soil	Hexavalent Chromium	Hexavalent Chromium - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:15	Soil	Mercury E7471A	Mercury E7471A - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:15	Soil	Metals E6010C	Metals E6010C - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:15	Soil	SVOCs E8270	SVOCs E8270 - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:15	Soil	TriCr	Trivalent Cr - Sub Pace PA	
MULCH-C02 (AT29597)	7 DAYS 11-08-16	10/28/2016 09:30	Soil	8081	PEST - Sub - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:30	Soil	Cyanide - Sub - Pace	Cyanide - Sub - Pace	
	7 DAYS 11-08-16	10/28/2016 09:30	Soil	EPA 8082A	PCB Analysis (Solid)	
	7 DAYS 11-08-16	10/28/2016 09:30	Soil	Herbicides E8151A	Herbicides E8151A - Sub Pace LI	
	7 DAYS 11-08-16	10/28/2016 09:30	Soil	Hexavalent Chromium	Hexavalent Chromium - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:30	Soil	Mercury E7471A	Mercury E7471A - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:30	Soil	Metals E6010C	Metals E6010C - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:30	Soil	SVOCs E8270	SVOCs E8270 - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:30	Soil	TriCr	Trivalent Cr - Sub Pace PA	
S-58 (AT29598)	7 DAYS 11-08-16	10/28/2016 09:35	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
S-59 (AT29599)	7 DAYS 11-08-16	10/28/2016 09:36	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
S-60 (AT29600)	7 DAYS 11-08-16	10/28/2016 09:37	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
S-61 (AT29601)	7 DAYS 11-08-16	10/28/2016 09:38	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	

SAMPLE RECEIPT REPORT
16110028

Pace Analytical Services
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

CLIENT: BARTON AND LOGUIDICE
PROJECT: ALCO
LRF: 16110028
REPORT: DATA PACKAGE
EDD: YES
LRF TAT: 7 DAYS

RECEIVED DATE: 10/28/2016 11:30
SHIPPED VIA: DROP OFF [1,2]
SHIPPING ID: N. SHAFFER/ BAR-ALB
NUMBER OF COOLERS: 1
CUSTODY SEAL INTACT: NA
COOLER STATUS: CHILLED
TEMPERATURE(S): [5] 12.8 (IR) °C

SAMPLE SEALS INTACT: NA
SAMPLES PRESERVED PER METHOD GUIDANCE: YES
[3] SAMPLES REC'D IN HOLDTIME: YES
DISPOSAL: BY LAB (45 DAYS)
COC DISCREPANCY: NO

COMMENTS:
SOIL SAMPLE FOR 8260 ANALYSES NOT PRESERVED PER METHOD 5035 GUIDANCE.

3

CLIENT ID (LAB ID)	TAT-DUE Date [4]	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
SC-25 (AT29602)	7 DAYS 11-08-16	10/28/2016 09:36	Soil	8081	PEST - Sub - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:36	Soil	Cyanide - Sub - Pace	Cyanide - Sub - Pace	
	7 DAYS 11-08-16	10/28/2016 09:36	Soil	EPA 8082A	PCB Analysis (Solid)	
	7 DAYS 11-08-16	10/28/2016 09:36	Soil	Herbicides E8151A	Herbicides E8151A - Sub Pace LI	
	7 DAYS 11-08-16	10/28/2016 09:36	Soil	Hexavalent Chromium	Hexavalent Chromium - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:36	Soil	Mercury E7471A	Mercury E7471A - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:36	Soil	Metals E6010C	Metals E6010C - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:36	Soil	SVOCs E8270	SVOCs E8270 - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:36	Soil	TriCr	Trivalent Cr - Sub Pace PA	
SC-26 (AT29603)	7 DAYS 11-08-16	10/28/2016 09:38	Soil	8081	PEST - Sub - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:38	Soil	Cyanide - Sub - Pace	Cyanide - Sub - Pace	
	7 DAYS 11-08-16	10/28/2016 09:38	Soil	EPA 8082A	PCB Analysis (Solid)	
	7 DAYS 11-08-16	10/28/2016 09:38	Soil	Herbicides E8151A	Herbicides E8151A - Sub Pace LI	
	7 DAYS 11-08-16	10/28/2016 09:38	Soil	Hexavalent Chromium	Hexavalent Chromium - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:38	Soil	Mercury E7471A	Mercury E7471A - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:38	Soil	Metals E6010C	Metals E6010C - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:38	Soil	SVOCs E8270	SVOCs E8270 - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:38	Soil	TriCr	Trivalent Cr - Sub Pace PA	
S-62 (AT29604)	7 DAYS 11-08-16	10/28/2016 09:40	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
S-63 (AT29605)	7 DAYS 11-08-16	10/28/2016 09:41	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
S-64 (AT29606)	7 DAYS 11-08-16	10/28/2016 09:42	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
S-65 (AT29607)	7 DAYS 11-08-16	10/28/2016 09:43	Soil	VOCs E8260	VOCs E8260 - Sub Pace PA	
SC-27 (AT29608)	7 DAYS 11-08-16	10/28/2016 09:41	Soil	8081	PEST - Sub - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:41	Soil	Cyanide - Sub - Pace	Cyanide - Sub - Pace	
	7 DAYS 11-08-16	10/28/2016 09:41	Soil	EPA 8082A	PCB Analysis (Solid)	
	7 DAYS 11-08-16	10/28/2016 09:41	Soil	Herbicides E8151A	Herbicides E8151A - Sub Pace LI	
	7 DAYS 11-08-16	10/28/2016 09:41	Soil	Hexavalent Chromium	Hexavalent Chromium - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:41	Soil	Mercury E7471A	Mercury E7471A - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:41	Soil	Metals E6010C	Metals E6010C - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:41	Soil	SVOCs E8270	SVOCs E8270 - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:41	Soil	TriCr	Trivalent Cr - Sub Pace PA	

SAMPLE RECEIPT REPORT
16110028

Pace Analytical Services
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

CLIENT: BARTON AND LOGUIDICE
PROJECT: ALCO
LRF: 16110028
REPORT: DATA PACKAGE
EDD: YES
LRF TAT: 7 DAYS

RECEIVED DATE: 10/28/2016 11:30
SHIPPED VIA: DROP OFF [1,2]
SHIPPING ID: N. SHAFFER/ BAR-ALB
NUMBER OF COOLERS: 1
CUSTODY SEAL INTACT: NA
COOLER STATUS: CHILLED
TEMPERATURE(S): [5] 12.8 (IR) °C

SAMPLE SEALS INTACT: NA
SAMPLES PRESERVED PER METHOD GUIDANCE: YES
[3] **SAMPLES REC'D IN HOLDTIME:** YES
DISPOSAL: BY LAB (45 DAYS)
COC DISCREPANCY: NO

COMMENTS:
SOIL SAMPLE FOR 8260 ANALYSES NOT PRESERVED PER METHOD 5035 GUIDANCE.

3

CLIENT ID (LAB ID)	TAT-DUE Date [4]	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
SC-28 (AT29609)	7 DAYS 11-08-16	10/28/2016 09:43	Soil	8081	PEST - Sub - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:43	Soil	Cyanide - Sub - Pace	Cyanide - Sub - Pace	
	7 DAYS 11-08-16	10/28/2016 09:43	Soil	EPA 8082A	PCB Analysis (Solid)	
	7 DAYS 11-08-16	10/28/2016 09:43	Soil	Herbicides E8151A	Herbicides E8151A - Sub Pace LI	
	7 DAYS 11-08-16	10/28/2016 09:43	Soil	Hexavalent Chromium	Hexavalent Chromium - Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:43	Soil	Mercury E7471A	Mercury E7471A - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:43	Soil	Metals E6010C	Metals E6010C - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:43	Soil	SVOCs E8270	SVOCs E8270 - Sub Pace PA	
	7 DAYS 11-08-16	10/28/2016 09:43	Soil	TriCr	Trivalent Cr - Sub Pace PA	

[1]The pH preservation check of Oil and Grease (Method 1664) and Total Organic Carbon (Method 5310B) are performed as soon as possible after sample receipt and may not be included in this report.
[2]The pH preservation check of aqueous volatile samples is not performed until after the analysis of the sample to maintain zero headspace and is not included in this report.
[3]Samples received for pH analysis are not marked as a hold time exceedance here. SW-846 methods suggests analysis to be done within 15 minutes of sample collection. Because of transportation time it is not possible for the laboratory to perform the test in that time. Sample Certificates of Analysis reports are noted as such.
[4]Samples arriving at the laboratory after 4:00 pm are assigned a due date as if they arrived the following business day unless other arrangements have been made.
The due date represents the date the lab report is expected to be completed on or before 5:00 pm (EST) for the date specified.
[5]All samples which require thermal preservation shall be considered acceptable when received greater than 6 degrees Celsius if they are collected on the same day as received and there is evidence that the chilling process has begun, such as arrival on ice.Control limits are between 0-6 Degrees Celsius. Control limits do not apply for metals analysis.
[6]Samples requesting analysis for Orthophosphate (SM 4500-P E-99,-11) require the samples to be filtered in the field within 15 minutes of the sampling event. Samples that are received unfiltered will be noted as not method compliant on the Certificates of Analysis.

Reporting Parameters and Lists

EPA 8082A - PCB Analysis (Solid) - (ug/g)

Aroclor 1016
Aroclor 1221
Aroclor 1232
Aroclor 1242
Aroclor 1248
Aroclor 1254
Aroclor 1260
Total PCB Amount > RL

GC - PCB

Pace Analytical Services
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: MULCH-C01
Lab Sample ID: 16110028-07 (AT29596)

Collection Date: 10/28/2016 09:15
Sample Matrix: SOIL
Received Date: 10/28/2016 11:30
Percent Solid: 49.0 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10F-1841-5	SW-846 8082A (PCB)	11/03/2016 16:08	JKA	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34961	EPA 3546	11/02/2016 11:34	AMF	10.1 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.101	1.00	U	GC10F-1841-5
Aroclor 1221	11104-28-2	ND	0.101	1.00	U	GC10F-1841-5
Aroclor 1232	11141-16-5	ND	0.101	1.00	U	GC10F-1841-5
Aroclor 1242	53469-21-9	ND	0.101	1.00	U	GC10F-1841-5
Aroclor 1248	12672-29-6	ND	0.101	1.00	U	GC10F-1841-5
Aroclor 1254	11097-69-1	ND	0.101	1.00	U	GC10F-1841-5
Aroclor 1260	11096-82-5	ND	0.101	1.00	U	GC10F-1841-5
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC10F-1841-5

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	69.5	38.9-143		GC10F-1841-5
Decachlorobiphenyl	2051-24-3	71.7	30.0-155		GC10F-1841-5
Tetrachloro-meta-xylene	877-09-8	70.1	38.9-143		GC10B-1827-5
Decachlorobiphenyl	2051-24-3	79.5	30.0-155		GC10B-1827-5

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Pace Analytical Services
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: MULCH-C02
Lab Sample ID: 16110028-08 (AT29597)

Collection Date: 10/28/2016 09:30
Sample Matrix: SOIL
Received Date: 10/28/2016 11:30
Percent Solid: 75.0 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10F-1841-6	SW-846 8082A (PCB)	11/03/2016 16:20	JKA	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34961	EPA 3546	11/02/2016 11:39	AMF	10.1 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0663	1.00	U	GC10F-1841-6
Aroclor 1221	11104-28-2	ND	0.0663	1.00	U	GC10F-1841-6
Aroclor 1232	11141-16-5	ND	0.0663	1.00	U	GC10F-1841-6
Aroclor 1242	53469-21-9	ND	0.0663	1.00	U	GC10F-1841-6
Aroclor 1248	12672-29-6	ND	0.0663	1.00	U	GC10F-1841-6
Aroclor 1254	11097-69-1	ND	0.0663	1.00	U	GC10F-1841-6
Aroclor 1260	11096-82-5	ND	0.0663	1.00	U	GC10F-1841-6
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC10F-1841-6

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	75.2	38.9-143		GC10F-1841-6
Decachlorobiphenyl	2051-24-3	78.2	30.0-155		GC10F-1841-6
Tetrachloro-meta-xylene	877-09-8	71.4	38.9-143		GC10B-1827-6
Decachlorobiphenyl	2051-24-3	85.5	30.0-155		GC10B-1827-6

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: SC-25
Lab Sample ID: 16110028-13 (AT29602)

Collection Date: 10/28/2016 09:36
Sample Matrix: SOIL
Received Date: 10/28/2016 11:30
Percent Solid: 90.8 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10F-1841-7	SW-846 8082A (PCB)	11/03/2016 16:33	JKA	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34961	EPA 3546	11/02/2016 11:42	AMF	10.0 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0549	1.00	U	GC10F-1841-7
Aroclor 1221	11104-28-2	ND	0.0549	1.00	U	GC10F-1841-7
Aroclor 1232	11141-16-5	ND	0.0549	1.00	U	GC10F-1841-7
Aroclor 1242	53469-21-9	ND	0.0549	1.00	U	GC10F-1841-7
Aroclor 1248	12672-29-6	ND	0.0549	1.00	U	GC10F-1841-7
Aroclor 1254	11097-69-1	ND	0.0549	1.00	U	GC10F-1841-7
Aroclor 1260	11096-82-5	ND	0.0549	1.00	U	GC10F-1841-7
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC10F-1841-7

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	81.4	38.9-143		GC10F-1841-7
Decachlorobiphenyl	2051-24-3	96.0	30.0-155		GC10F-1841-7
Tetrachloro-meta-xylene	877-09-8	86.3	38.9-143		GC10B-1827-7
Decachlorobiphenyl	2051-24-3	105	30.0-155		GC10B-1827-7

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: SC-26
Lab Sample ID: 16110028-14 (AT29603)

Collection Date: 10/28/2016 09:38
Sample Matrix: SOIL
Received Date: 10/28/2016 11:30
Percent Solid: 89.6 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10F-1841-12	SW-846 8082A (PCB)	11/03/2016 17:36	JKA	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34968	EPA 3546	11/02/2016 17:22	AMF	10.1 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0554	1.00	U	GC10F-1841-12
Aroclor 1221	11104-28-2	ND	0.0554	1.00	U	GC10F-1841-12
Aroclor 1232	11141-16-5	ND	0.0554	1.00	U	GC10F-1841-12
Aroclor 1242	53469-21-9	ND	0.0554	1.00	U	GC10F-1841-12
Aroclor 1248	12672-29-6	ND	0.0554	1.00	U	GC10F-1841-12
Aroclor 1254	11097-69-1	ND	0.0554	1.00	U	GC10F-1841-12
Aroclor 1260	11096-82-5	ND	0.0554	1.00	U	GC10F-1841-12
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC10F-1841-12

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	83.6	38.9-143		GC10F-1841-12
Decachlorobiphenyl	2051-24-3	99.0	30.0-155		GC10F-1841-12
Tetrachloro-meta-xylene	877-09-8	88.4	38.9-143		GC10B-1827-12
Decachlorobiphenyl	2051-24-3	110	30.0-155		GC10B-1827-12

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: SC-27
Lab Sample ID: 16110028-19 (AT29608)

Collection Date: 10/28/2016 09:41
Sample Matrix: SOIL
Received Date: 10/28/2016 11:30
Percent Solid: 92.3 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10F-1841-8	SW-846 8082A (PCB)	11/03/2016 16:45	JKA	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34961	EPA 3546	11/02/2016 11:45	AMF	10.4 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0523	1.00	U	GC10F-1841-8
Aroclor 1221	11104-28-2	ND	0.0523	1.00	U	GC10F-1841-8
Aroclor 1232	11141-16-5	ND	0.0523	1.00	U	GC10F-1841-8
Aroclor 1242	53469-21-9	ND	0.0523	1.00	U	GC10F-1841-8
Aroclor 1248	12672-29-6	ND	0.0523	1.00	U	GC10F-1841-8
Aroclor 1254	11097-69-1	ND	0.0523	1.00	U	GC10F-1841-8
Aroclor 1260	11096-82-5	ND	0.0523	1.00	U	GC10F-1841-8
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC10F-1841-8

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	84.0	38.9-143		GC10F-1841-8
Decachlorobiphenyl	2051-24-3	97.5	30.0-155		GC10F-1841-8
Tetrachloro-meta-xylene	877-09-8	89.9	38.9-143		GC10B-1827-8
Decachlorobiphenyl	2051-24-3	108	30.0-155		GC10B-1827-8

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: SC-28
Lab Sample ID: 16110028-20 (AT29609)

Collection Date: 10/28/2016 09:43
Sample Matrix: SOIL
Received Date: 10/28/2016 11:30
Percent Solid: 93.2 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10F-1841-9	SW-846 8082A (PCB)	11/03/2016 16:58	JKA	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34961	EPA 3546	11/02/2016 11:46	AMF	10.0 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0536	1.00	U	GC10F-1841-9
Aroclor 1221	11104-28-2	ND	0.0536	1.00	U	GC10F-1841-9
Aroclor 1232	11141-16-5	ND	0.0536	1.00	U	GC10F-1841-9
Aroclor 1242	53469-21-9	ND	0.0536	1.00	U	GC10F-1841-9
Aroclor 1248	12672-29-6	ND	0.0536	1.00	U	GC10F-1841-9
Aroclor 1254	11097-69-1	ND	0.0536	1.00	U	GC10F-1841-9
Aroclor 1260	11096-82-5	ND	0.0536	1.00	U	GC10F-1841-9
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC10F-1841-9

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	83.4	38.9-143		GC10F-1841-9
Decachlorobiphenyl	2051-24-3	96.2	30.0-155		GC10F-1841-9
Tetrachloro-meta-xylene	877-09-8	86.7	38.9-143		GC10B-1827-9
Decachlorobiphenyl	2051-24-3	106	30.0-155		GC10B-1827-9

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Quality Control Samples (Lab)

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Quality Control Results
Method Blank

Job Number: 16110028

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Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: Method Blank (AT29596B)
Lab Sample ID: PBLK-42

Collection Date: N/A
Sample Matrix: SOIL
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10B-1827-3	SW-846 8082A (PCB)	11/03/2016 15:42	JKA	NA	NA	Phenomenex, Zebron ZB-5, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34961	EPA 3546	11/02/2016 11:32	AMF	10.0 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC10B-1827-3
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC10B-1827-3
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC10B-1827-3
Aroclor 1242	53469-21-9	ND	0.0500	1.00	U	GC10B-1827-3
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC10B-1827-3
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC10B-1827-3
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC10B-1827-3
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC10B-1827-3

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	85.6	38.9-143		GC10B-1827-3
Decachlorobiphenyl	2051-24-3	107	30.0-155		GC10B-1827-3

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

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PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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Quality Control Results
Method Blank

Job Number: 16110028

Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: Method Blank (AT29596B)
Lab Sample ID: PBLK-42

Collection Date: N/A
Sample Matrix: SOIL
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10F-1841-3	SW-846 8082A (PCB)	11/03/2016 15:42	JKA	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34961	EPA 3546	11/02/2016 11:32	AMF	10.0 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC10F-1841-3
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC10F-1841-3
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC10F-1841-3
Aroclor 1242	53469-21-9	ND	0.0500	1.00	U	GC10F-1841-3
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC10F-1841-3
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC10F-1841-3
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC10F-1841-3
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC10F-1841-3

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	78.4	38.9-143		GC10F-1841-3
Decachlorobiphenyl	2051-24-3	94.6	30.0-155		GC10F-1841-3

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

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PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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Quality Control Results
Lab Control Sample (LCS)

Job Number: 16110028

Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: Lab Control Sample (AT29596L)
Lab Sample ID: LCS-42

Collection Date: N/A
Sample Matrix: SOIL
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10B-1827-4	SW-846 8082A (PCB)	11/03/2016 15:55	JKA	NA	NA	Phenomenex, Zebron ZB-5, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34961	EPA 3546	11/02/2016 11:32	AMF	10.1 g	25.0 mL	NA

Analyte Spiked	CAS No.	Added (ug/g)	LCS (ug/g)	LCS % Rec.	Q[1]	Limits (%)
Aroclor 1242	53469-21-9	1.23	1.10	89.3		70.0-130

[1]Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	95.1	38.9-143		GC10B-1827-4
Decachlorobiphenyl	2051-24-3	109	30.0-155		GC10B-1827-4

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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Quality Control Results
Lab Control Sample (LCS)

Job Number: 16110028

Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: Lab Control Sample (AT29596L)
Lab Sample ID: LCS-42

Collection Date: N/A
Sample Matrix: SOIL
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10F-1841-4	SW-846 8082A (PCB)	11/03/2016 15:55	JKA	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34961	EPA 3546	11/02/2016 11:32	AMF	10.1 g	25.0 mL	NA

Analyte Spiked	CAS No.	Added (ug/g)	LCS (ug/g)	LCS % Rec.	Q[1]	Limits (%)
Aroclor 1242	53469-21-9	1.23	1.11	89.9		70.0-130

[1]Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	86.4	38.9-143		GC10F-1841-4
Decachlorobiphenyl	2051-24-3	100	30.0-155		GC10F-1841-4

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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Quality Control Results
Method Blank

Job Number: 16110028

Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: Method Blank (AT29603B)
Lab Sample ID: PBLK-49

Collection Date: N/A
Sample Matrix: SOIL
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10B-1827-10	SW-846 8082A (PCB)	11/03/2016 17:11	JKA	NA	NA	Phenomenex, Zebron ZB-5, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34968	EPA 3546	11/02/2016 17:20	AMF	10.0 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC10B-1827-10
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC10B-1827-10
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC10B-1827-10
Aroclor 1242	53469-21-9	ND	0.0500	1.00	U	GC10B-1827-10
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC10B-1827-10
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC10B-1827-10
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC10B-1827-10
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC10B-1827-10

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	89.3	38.9-143		GC10B-1827-10
Decachlorobiphenyl	2051-24-3	110	30.0-155		GC10B-1827-10

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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Quality Control Results
Method Blank

Job Number: 16110028

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Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: Method Blank (AT29603B)
Lab Sample ID: PBLK-49

Collection Date: N/A
Sample Matrix: SOIL
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10F-1841-10	SW-846 8082A (PCB)	11/03/2016 17:10	JKA	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34968	EPA 3546	11/02/2016 17:20	AMF	10.0 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC10F-1841-10
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC10F-1841-10
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC10F-1841-10
Aroclor 1242	53469-21-9	ND	0.0500	1.00	U	GC10F-1841-10
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC10F-1841-10
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC10F-1841-10
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC10F-1841-10
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC10F-1841-10

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	84.1	38.9-143		GC10F-1841-10
Decachlorobiphenyl	2051-24-3	99.5	30.0-155		GC10F-1841-10

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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Quality Control Results
Lab Control Sample (LCS)
Job Number: 16110028

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Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: Lab Control Sample (AT29603L)
Lab Sample ID: LCS-49

Collection Date: N/A
Sample Matrix: SOIL
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10B-1827-11	SW-846 8082A (PCB)	11/03/2016 17:23	JKA	NA	NA	Phenomenex, Zebron ZB-5, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34968	EPA 3546	11/02/2016 17:21	AMF	10.0 g	25.0 mL	NA

Analyte Spiked	CAS No.	Added (ug/g)	LCS (ug/g)	LCS % Rec.	Q[1]	Limits (%)
Aroclor 1242	53469-21-9	1.25	1.05	83.7		70.0-130

[1]Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	92.1	38.9-143		GC10B-1827-11
Decachlorobiphenyl	2051-24-3	107	30.0-155		GC10B-1827-11

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

5

Pace Analytical®

Quality Control Results
Lab Control Sample (LCS)
Job Number: 16110028

Pace Analytical Services
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: BARTON AND LOGUIDICE
Project: ALCO
Client Sample ID: Lab Control Sample (AT29603L)
Lab Sample ID: LCS-49

Collection Date: N/A
Sample Matrix: SOIL
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC10F-1841-11	SW-846 8082A (PCB)	11/03/2016 17:23	JKA	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	34968	EPA 3546	11/02/2016 17:21	AMF	10.0 g	25.0 mL	NA

Analyte Spiked	CAS No.	Added (ug/g)	LCS (ug/g)	LCS % Rec.	Q[1]	Limits (%)
Aroclor 1242	53469-21-9	1.25	1.04	83.4		70.0-130

[1]Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q[1]	File ID
Tetrachloro-meta-xylene	877-09-8	84.4	38.9-143		GC10F-1841-11
Decachlorobiphenyl	2051-24-3	98.3	30.0-155		GC10F-1841-11

[1]Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

5

Subcontract Analysis

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

November 14, 2016

Nick Nicholas

2190 Technology Drive
Schenectady, NY 12308

RE: Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

Dear Nick Nicholas:
Enclosed are the analytical results for sample(s) received by the laboratory on November 02, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Caitlin Panzarella

Caitlin Panzarella
caitlin.panzarella@pacelabs.com
Project Manager

Enclosures

cc: Nicole Johnson

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

Sample: MULCH-C01 **Lab ID: 703605001** Collected: 10/28/16 09:15 Received: 11/02/16 10:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151A Preparation Method: EPA 8151A							
2,4-D	**42.9**	ug/kg	20.7	1	11/04/16 09:00	11/09/16 12:37	94-75-7	
Dicamba	**<6.2**	ug/kg	6.2	1	11/04/16 09:00	11/09/16 12:37	1918-00-9	
2,4,5-T	**72.8**	ug/kg	10.3	1	11/04/16 09:00	11/09/16 12:37	93-76-5	
2,4,5-TP (Silvex)	**<10.3**	ug/kg	10.3	1	11/04/16 09:00	11/09/16 12:37	93-72-1	
Surrogates								
2,4-DCAA (S)	23	%.	29-136	1	11/04/16 09:00	11/09/16 12:37	19719-28-9	S0
Percent Moisture	Analytical Method: ASTM D2216-92							
Percent Moisture	**51.6**	%	0.10	1		11/07/16 21:26		

6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

Sample: MULCH-C02 **Lab ID: 703605002** Collected: 10/28/16 09:30 Received: 11/02/16 10:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151A Preparation Method: EPA 8151A							
2,4-D	**<23.0**	ug/kg	23.0	1	11/04/16 09:00	11/09/16 12:54	94-75-7	
Dicamba	**<6.9**	ug/kg	6.9	1	11/04/16 09:00	11/09/16 12:54	1918-00-9	
2,4,5-T	**25.1**	ug/kg	11.5	1	11/04/16 09:00	11/09/16 12:54	93-76-5	
2,4,5-TP (Silvex)	**<11.5**	ug/kg	11.5	1	11/04/16 09:00	11/09/16 12:54	93-72-1	
Surrogates								
2,4-DCAA (S)	50	%.	29-136	1	11/04/16 09:00	11/09/16 12:54	19719-28-9	
Percent Moisture	Analytical Method: ASTM D2216-92							
Percent Moisture	**56.5**	%	0.10	1		11/07/16 21:28		

6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

Sample: SC-25 **Lab ID: 703605003** Collected: 10/28/16 09:36 Received: 11/02/16 10:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151A Preparation Method: EPA 8151A							
2,4-D	**<11.0**	ug/kg	11.0	1	11/04/16 09:00	11/09/16 08:11	94-75-7	
Dicamba	**<3.3**	ug/kg	3.3	1	11/04/16 09:00	11/09/16 08:11	1918-00-9	
2,4,5-T	**<5.5**	ug/kg	5.5	1	11/04/16 09:00	11/09/16 08:11	93-76-5	
2,4,5-TP (Silvex)	**<5.5**	ug/kg	5.5	1	11/04/16 09:00	11/09/16 08:11	93-72-1	
Surrogates								
2,4-DCAA (S)	67	%.	29-136	1	11/04/16 09:00	11/09/16 08:11	19719-28-9	
Percent Moisture	Analytical Method: ASTM D2216-92							
Percent Moisture	**8.7**	%	0.10	1		11/07/16 21:29		

6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

Sample: SC-26 **Lab ID: 703605004** Collected: 10/28/16 09:38 Received: 11/02/16 10:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151A Preparation Method: EPA 8151A							
2,4-D	**<11.0**	ug/kg	11.0	1	11/04/16 09:00	11/09/16 08:27	94-75-7	
Dicamba	**<3.3**	ug/kg	3.3	1	11/04/16 09:00	11/09/16 08:27	1918-00-9	
2,4,5-T	**<5.5**	ug/kg	5.5	1	11/04/16 09:00	11/09/16 08:27	93-76-5	
2,4,5-TP (Silvex)	**<5.5**	ug/kg	5.5	1	11/04/16 09:00	11/09/16 08:27	93-72-1	
Surrogates								
2,4-DCAA (S)	75	%.	29-136	1	11/04/16 09:00	11/09/16 08:27	19719-28-9	
Percent Moisture	Analytical Method: ASTM D2216-92							
Percent Moisture	**8.9**	%	0.10	1		11/07/16 21:29		

6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

Sample: SC-27 **Lab ID: 703605005** Collected: 10/28/16 09:41 Received: 11/02/16 10:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151A Preparation Method: EPA 8151A							
2,4-D	**<10.8**	ug/kg	10.8	1	11/04/16 09:00	11/09/16 08:44	94-75-7	
Dicamba	**<3.2**	ug/kg	3.2	1	11/04/16 09:00	11/09/16 08:44	1918-00-9	
2,4,5-T	**<5.4**	ug/kg	5.4	1	11/04/16 09:00	11/09/16 08:44	93-76-5	
2,4,5-TP (Silvex)	**<5.4**	ug/kg	5.4	1	11/04/16 09:00	11/09/16 08:44	93-72-1	
Surrogates								
2,4-DCAA (S)	73	%.	29-136	1	11/04/16 09:00	11/09/16 08:44	19719-28-9	
Percent Moisture	Analytical Method: ASTM D2216-92							
Percent Moisture	**7.2**	%	0.10	1		11/07/16 21:30		

6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

Sample: SC-28 **Lab ID: 703605006** Collected: 10/28/16 09:43 Received: 11/02/16 10:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151A Preparation Method: EPA 8151A							
2,4-D	**<11.0**	ug/kg	11.0	1	11/04/16 09:00	11/09/16 09:01	94-75-7	
Dicamba	**<3.3**	ug/kg	3.3	1	11/04/16 09:00	11/09/16 09:01	1918-00-9	
2,4,5-T	**<5.5**	ug/kg	5.5	1	11/04/16 09:00	11/09/16 09:01	93-76-5	
2,4,5-TP (Silvex)	**<5.5**	ug/kg	5.5	1	11/04/16 09:00	11/09/16 09:01	93-72-1	
Surrogates								
2,4-DCAA (S)	82	%.	29-136	1	11/04/16 09:00	11/09/16 09:01	19719-28-9	
Percent Moisture	Analytical Method: ASTM D2216-92							
Percent Moisture	**9.3**	%	0.10	1		11/07/16 21:30		

6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

QC Batch: 3288 Analysis Method: EPA 8151A
QC Batch Method: EPA 8151A Analysis Description: 8151 GCS Herbicides
Associated Lab Samples: 703605001, 703605002, 703605003, 703605004, 703605005, 703605006

METHOD BLANK: 16952 Matrix: Solid
Associated Lab Samples: 703605001, 703605002, 703605003, 703605004, 703605005, 703605006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-T	ug/kg	<5.0	5.0	11/09/16 07:21	
2,4,5-TP (Silvex)	ug/kg	<5.0	5.0	11/09/16 07:21	
2,4-D	ug/kg	<10.0	10.0	11/09/16 07:21	
Dicamba	ug/kg	<3.0	3.0	11/09/16 07:21	
2,4-DCAA (S)	%.	76	29-136	11/09/16 07:21	

LABORATORY CONTROL SAMPLE: 16953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-T	ug/kg	20	12.4	62	16-136	
2,4,5-TP (Silvex)	ug/kg	20	12.9	65	12-146	
2,4-D	ug/kg	60	40.3	67	25-157	
Dicamba	ug/kg	20	12.2	61	16-136	
2,4-DCAA (S)	%.			63	29-136	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 16954 16955

Parameter	Units	703605006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
2,4,5-T	ug/kg	<5.5	22.1	22.1	14.8	17.8	67	81	16-136	18	
2,4,5-TP (Silvex)	ug/kg	<5.5	22.1	22.1	16.3	19.2	74	87	12-146	16	
2,4-D	ug/kg	<11.0	66.2	66.2	47.0	56.2	67	81	25-157	18	
Dicamba	ug/kg	<3.3	22.1	22.1	16.4	15.3	74	69	16-136	7	
2,4-DCAA (S)	%.						71	93	29-136		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

QC Batch: 3258 Analysis Method: ASTM D2216-92
QC Batch Method: ASTM D2216-92 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 703605001, 703605002, 703605003, 703605004, 703605005, 703605006

SAMPLE DUPLICATE: 16916

Parameter	Units	703605001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	51.6	49.5	4	

6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

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.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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.

ANALYTE QUALIFIERS

S0 Surrogate recovery outside laboratory control limits.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 16110028-1368.001 CAT B
Pace Project No.: 703605

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
703605001	**MULCH-C01**	EPA 8151A	3288	EPA 8151A	3365
703605002	**MULCH-C02**	EPA 8151A	3288	EPA 8151A	3365
703605003	**SC-25**	EPA 8151A	3288	EPA 8151A	3365
703605004	**SC-26**	EPA 8151A	3288	EPA 8151A	3365
703605005	**SC-27**	EPA 8151A	3288	EPA 8151A	3365
703605006	**SC-28**	EPA 8151A	3288	EPA 8151A	3365
703605001	**MULCH-C01**	ASTM D2216-92	3258		
703605002	**MULCH-C02**	ASTM D2216-92	3258		
703605003	**SC-25**	ASTM D2216-92	3258		
703605004	**SC-26**	ASTM D2216-92	3258		
703605005	**SC-27**	ASTM D2216-92	3258		
703605006	**SC-28**	ASTM D2216-92	3258		

6

PACE-NY544

PACE

WO#:703605

CHAIN OF CUSTODY RECORD

PAGE 1 OF 2

Pace Analytical Services
2190 Technology Drive, Schenectady, NY 12308
Telephone (518) 346-4592 Fax (518) 381-6055
www.pacelabs.com

LRF # 16110028
(LAB USE ONLY)

DISPOSAL REQUIR
- ○ RETURN TO CLIENT
- ● DISPOSAL BY RECEIVING LAB
- ○ ARCHIVAL BY RECEIVING LAB

Additional charges incurred for disposal (if hazardous) or archival.
Call for details.

CLIENT (REPORTS TO BE SENT TO): PACE

PROJECT/PROJECT NAME: 16110028

LOCATION (CITY/STATE) ADDRESS: NY

PROJECT MANAGER: Nick Nicholas

REQUIRED TURN AROUND TIME: 11/8/2016

Project: 1368.001 CAT B

Notes:

NAME OF COURIER (IF USED):

ELECTRONIC RESULTS: nicholas.nicholas@pacelabs.com; Nicole.Johnson@pacelabs.com

ENTER ANALYSIS AND METHOD NUMBER REQUESTED

PRESERVATIVE CODE: 0
BOTTLE TYPE: MASON
BOTTLE SIZE: 4OZ

PRESERVATIVE KEY
0 - ICE
1 - HCL
2 - HNO3
3 - H2SO4
4 - NaOH
5 - Zn. Acetate
6 - MeOH
7 - NaHSO4
8 - Other (Na2SO3)

SAMPLE ID	DATE	TIME	MATRIX	GRAB/ COMP	LAB SAMPLE ID (LAB USE ONLY)	NUMBER OF CONTAINERS	Herbicides (8151)	REMARKS:
MULCH-01	10/28/16	9:05	SD	GRAB	AT29590	0		
MULCH-02	10/28/16	9:10	SD	GRAB	AT29591	0		
MULCH-03	10/28/16	9:15	SD	GRAB	AT29592	0		
MULCH-04	10/28/16	9:20	SD	GRAB	AT29593	0		
MULCH-05	10/28/16	9:25	SD	GRAB	AT29594	0		
MULCH-06	10/28/16	9:30	SD	GRAB	AT29595	0		
MULCH-C01	10/28/16	9:15	SD	COMP	AT29596	1	X	
MULCH-C02	10/28/16	9:30	SD	COMP	AT29597	1	X	
S-58	10/28/16	9:35	S	GRAB	AT29598	0		
S-59	10/28/16	9:36	S	GRAB	AT29599	0		

AMBIENT OR CHILLED: TEMP: 1.6
COC TAPE: Y N
PROPERLY PRESERVED: Y N
OTHER NOTES: Data Package (LEVEL-4) EDD: EQUIS-DEC-DER
RECEIVED BROKEN OR LEAKING: Y (N)
COC DISCREPANCIES: Y (N)
RECVD W/I HOLDING TIMES: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
SIGNATURE: [signature]	SIGNATURE: VIA FED EX →	SIGNATURE	SIGNATURE: [signature]	SIGNATURE	SIGNATURE
PRINTED NAME: B. Butler	PRINTED NAME	PRINTED NAME	PRINTED NAME: [illegible]	PRINTED NAME	PRINTED NAME
COMPANY: PACE	COMPANY	COMPANY	COMPANY: Pace-LI	COMPANY	COMPANY
DATE/TIME: 11/1/16 16:00	DATE/TIME	DATE/TIME	DATE/TIME: 10/2/16 16:15	DATE/TIME	DATE/TIME

S:\LOGIN\MDLCOCS

PACE

WO#:703605
PM: CNP Due Date: 11/08/16
CLIENT: PACE-NY

CHAIN OF CUSTODY RECORD

Pace Analytical Services
2190 Technology Drive, Schenectady, NY 12308
Telephone (518) 346-4592 Fax (518) 381-6055
www.pacelabs.com

LRF # 16110028
(LAB USE ONLY)

DISPOSAL REQU
- ○ RETURN TO CLIENT
- ● DISPOSAL BY RECEIVING LAB
- ○ ARCHIVAL BY RECEIVING LAB

Additional charges incurred for disposal (if hazardous) or archival.
Call for details.

CLIENT (REPORTS TO BE SENT TO): PACE

PROJECT MANAGER: Nick Nicholas

Project: 1368.001 CAT B

Notes:

PROJECT/PROJECT NAME: 16110028

LOCATION (CITY/STATE) ADDRESS: NY

REQUIRED TURN AROUND TIME: 11/8/2016

NAME OF COURIER (IF USED):

ELECTRONIC RESULTS: nicholas.nicholas@pacelabs.com; Nicole.Johnson@pacelabs.com

ENTER ANALYSIS AND METHOD NUMBER REQUESTED

PRESERVATIVE CODE:	0
BOTTLE TYPE:	MASON
BOTTLE SIZE:	40Z

PRESERVATIVE KEY
0 - ICE
1 - HCL
2 - HNO3
3 - H2SO4
4 - NaOH
5 - Zn. Acetate
6 - MeOH
7 - NaHSO4
8 - Other (Na2SO3)

SAMPLE ID	DATE	TIME	MATRIX	GRAB/ COMP	LAB SAMPLE ID (LAB USE ONLY)	NUMBER OF CONTAINERS	Herbicides (8151)	REMARKS:
S-60	10/28/16	9:37	S	GRAB	AT29600	0		
S-61	10/28/16	9:38	S	GRAB	AT29601	0		
SC-25	10/28/16	9:36	S	COMP	AT29602	1	X	
SC-26	10/28/16	9:38	S	COMP	AT29603	1	X	
S-62	10/28/16	9:40	S	GRAB	AT29604	0		
S-63	10/28/16	9:41	S	GRAB	AT29605	0		
S-64	10/28/16	9:42	S	GRAB	AT29606	0		
S-65	10/28/16	9:43	S	GRAB	AT29607	0		
SC-27	10/28/16	9:41	S	COMP	AT29608	1	X	
SC-28	10/28/16	9:43	S	COMP	AT29609	1	X	

AMBIENT OR CHILLED: TEMP: 1.0
RECEIVED BROKEN OR LEAKING: Y (N)
COC TAPE: (Y) N
COC DISCREPANCIES: Y (N)
PROPERLY PRESERVED: (Y) N
RECVD W/I HOLDING TIMES: (Y) N
OTHER NOTES: Data Package [LEVEL-4] EDD: EQUIS-DEC-DER

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
SIGNATURE: T. Butler	SIGNATURE: V/A FED EX →	SIGNATURE:	SIGNATURE:	SIGNATURE:	SIGNATURE:
PRINTED NAME: T. Butler	PRINTED NAME:	PRINTED NAME:	PRINTED NAME:	PRINTED NAME:	PRINTED NAME:
COMPANY: PACE	COMPANY:	COMPANY:	COMPANY:	COMPANY:	COMPANY:
DATE/TIME: 11/1/16 16:00	DATE/TIME:	DATE/TIME:	DATE/TIME: 11/2/16 10:15	DATE/TIME:	DATE/TIME:

S:\LOGIN\MOLCOCS

INTER-LABORATORY WORK ORDER # ASR-12802
(To be completed by sending lab)

Pace Analytical™

Sending Project No.:	16110028
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	11/1/16
REQUESTED COMPLETION DATE:	11/8/16

Sending Region	65 Schenectady, NY	Sending Project Mgr	NICK NICHOLAS
Receiving Region	70 Pace Long Island	External Client	BAR-ALB
State of Sample Origin	NY	QC Deliverable	LEVEL-4\EQUIS-DEC-DER

All questions should be addressed to sending project manager.

NOTES:

Type of Work: Analytical [X] Other (Identify)

Requested Reportable Units ____ Report Wet or Dry Weight? ____

WORK REQUESTED

Method Description	Container Type (include volume)	Quantity of containers	Preservative	Quantity of Samples	Unit Price	Amount
Herbicides E8151A	4OZ MASON	1	NONE	6	$ 88.00	$ 528.00
						$ -
						$ -
						$ -
						$ -
						$ -
					TOTAL	$ 528.00

Special Requirements:

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation: Receiving Region (80%)	Revenue Allocation: Client Services Dept. Sending Region (20%)
Microbiology	17		$ -	$ -
Metals	20		$ -	$ -
Wet Chem.	21		$ -	$ -
SV GCMS	30		$ -	$ -
SV GC & LC	31		$ -	$ -
V GC	33		$ -	$ -
V GCMS	34		$ -	$ -
Dioxin* (Includes Coplanar PCBs & PBDEs)	35		$ -	$ -
Radiation	38		$ -	$ -
Air	39		$ -	$ -
Other(Specify)				$ -
Total			$ -	$ -

*Revenue Allocation (Receiving Region (80%) and Sending Region (20%))

FOR ANALYTICAL WORK COMPLETE THIS SECTION ALSO

Chain of Custody Included: [X] Yes [ ] No Return Samples to Sending Region: [ ] Yes [X] No

Matrix: [X] Soil [ ] Water [ ] Air [ ] Other (identify)

CONFIRMATION OF WORK COMPLETED

Date Completed: ____ Receiving Project Manager: ____

DISPOSITION of FORM

Original sent to the receiving lab - Copy kept at the sending lab.
When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

PaceAnalytical
www.pacelabs.com
New York Office
2190 Technology Dr.
Schenectady, NY 12308
(518) 346-4592

PACE-PT

CHAIN-OF-CUSTODY / Analytical Request Doc ment <16110028P2>

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

16_100282

Page: 2 of 2

Section A — Required Client Information:

Company: Barton and Loguidice DPC
Address: 10 Airline Drive, Suite 200
Albany, NY 12205
Email To: nshaffer@bartonandloguidice.com
Phone: 518-218-1801 Fax: 518-218-1805
Requested Due Date/TAT: Standard

Section B — Required Project Information:

Report To: Andy Barber
Copy To: Nathan Shaffer
Purchase Order No.:
Project Name: ALCO
Project Number: 1368.001.001

Section C — Invoice Information:

Attention: Accounts Payable
Company Name: Barton and Loguidice, DPC
Address: 443 Electronics Parkway, Liverpool NY, 13088
Pace Quote Reference: 00014909
Pace Project Manager: Nick Nicholas
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER ____

Filtered (Y/N)

Requested Ana

Section D — Required Client Information

Valid Matrix Codes: MATRIX / CODE

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

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE ENDORAB DATE	COLLECTED COMPOSITE ENDORAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis: VOCs By 8260	SVOC By 8270	Herbicides, Pesticides	PCBs by 8280	Full Metals	Mercury, Chromium	Cyanide	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	S-58	SL	G	10/28	9:35				1									x								AT25959
2	S-59	SL	G		9:36				1									x								AT25960
3	S-60	SL	G		9:37				1									x								AT25961
4	S-61	SL	G		9:38				1									x								AT25962
5	SC-25	SL	C		9:39				3										x	x	x	x	x	x		AT25963
6	SC-26	SL	C		9:38				3										x	x	x	x	x	x		AT25963
7	S-62	SL	G		9:40				1									x								AT25964
8	S-63	SL	G		9:41				1									x								AT25965
9	S-64	SL	G		9:42				1									x								AT25966
10	S-65	SL	G		9:43				1									x								AT25967
11	SC-27	SL	C		9:41				3										x	x	x	x	x	x		AT25968
12	SC-28	SL	C	↓	9:43				3										x	x	x	x	x	x		AT25969

*DER-10 - Appendix 5 - Allowable Constituent Levels for Imported Fill or Soil Subdivision 5.4(e)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Standard Deliverables		10/28	11:30	PACE	10/28/16	11:30	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nathan Shaffer

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/28/16

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

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PaceAnalytical
www.pacelabs.com
New York Office
2190 Technology Dr.
Schenectady, NY 12308
(518) 346-4592

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be complete. <16110028P1>

16110028

Page: 1 of 2

Section A Required Client Information:
Company: Barton and Loguidice DPC
Address: 10 Airline Drive, Suite 200
Albany, NY 12205
Email To: nshaffer@bartonandloguidice.com
Phone: 518-218-1801 Fax: 518-218-1805
Requested Due Date/TAT: Standard

Section B Required Project Information:
Report To: Andy Barber
Copy To: Nathan Shaffer
Purchase Order No.:
Project Name: ALCO
Project Number: 1368.001 001

Section C Invoice Information:
Attention: Accounts Payable
Company Name: Barton and Loguidice, DPC
Address: 443 Electronics Parkway Liverpool NY 13088
Pace Quote Reference: 00014909
Pace Project Manager: Nick Nicholas
Pace Profile #:

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

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER _____

Filtered (Y/N)

Requested Ana

Pace Project No. / Lab I.D.

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE	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 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	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	• VOCs By 8260	• SVOC By 8270	• Herbicides, Pesticides	• PCBs by 8260	• Full Metals	• Mercury, Chromium,	• Cyanide	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.	*DER-10 - Appendix 5 - Allowable Constituent Levels for Imported Fill or Soil Subdivision 5.4(e)
1	Mulch-01	SL	G			10/28	9:05		1	X								X								AT29590
2	Mulch-02	SL	G			10/28	9:10		1	X								X								AT29591
3	Mulch-03	SL	G			10/28	9:15		1	X								X								AT29592
4	Mulch-04	SL	G			10/28	9:20		1	X								X								AT29593
5	Mulch-05	SL	G			10/28	9:25		1	X								X								AT29594
6	Mulch-06	SL	G			10/28	9:30		1	X								X								AT29595
7	Mulch-07	SL	G			10/28	9:35		1	X								X								AT29596
8	Mulch-08	SL	G			10/28	9:40		1	X								X								AT29597
9	Mulch-C02	SL	C			10/28	9:30		3	X								X	X	X	X	X	X			AT29577
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Standard Deliverables		10/28	11:30				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nathan Shaffer

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY): 10/28/2016

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

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16:100283

Sample Condition Upon Receipt

CLIENT NAME: BAR-ALB

PROJECT : ALCO

COURIER: FedEx ☐ UPS ☐ Client ☑ Pace ☐ Other ☐

TRACKING # N/A

CUSTODY SEAL PRESENT: Yes ☐ No ☑ INTACT: Yes ☐ No ☐ N/A ☑

PACKING MATERIAL: Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other ☐ ICE USED: Wet ☑ Blue ☐ None ☐

THERMOMETER USED: #164 ☐ IR Gun 03 ☑ #160239773 ☐ #160239773-PRB ☐ COOLER TEMPERATURE (°C): 12.8/12.1

BIOLOGICAL TISSUE IS FROZEN: Yes ☐ No ☐ N/A ☑

COMMENTS: Temperature is Acceptable? ☑Yes ☐No

Chain of Custody Present:	☑Yes	☐No		1.
Chain of Custody Filled Out:	☑Yes	☐No		2.
Chain of Custody Relinquished :	☑Yes	☐No		3.
Sampler Name / Signature on COC:	☑Yes	☐No		4.
Samples Arrived within Hold Time :	☑Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No		6.
Rush Turn Around Time Requested :	☐Yes	☑No		7.
Sufficient Volume:	☑Yes	☐No		8.
Correct Containers Used:	☑Yes	☐No		9.
- Pace Containers Used:	☑Yes	☐No		
Containers Intact:	☑Yes	☐No		10.
Filtered volume received for Dissolved tests:	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No		12.
- Includes date/time/ID/Analysis				
All containers needing preservation have been checked:	☐Yes	☐No	☑N/A	13. 5oz samples for 8260 analysis not preserved per collection method 5035 guidance.
All containers needing preservation are in compliance with EPA recommendation:	☐Yes	☑No	☐N/A	Initial when completed: N/A Lot # of added preservative: N/A
- Exceptions that are not checked: TOC, VOA, Subcontract Analyses				
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	14.
Trip Blank Present:	☐Yes	☐No	☑N/A	15.
Trip Blank Custody Seals Present:	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot #: N/A				

Sample Receipt form filled in: _____

Line-Out (Includes Copying Shipping Documents and verifying sample pH): AA 11/1/16

Log In (Includes notifying PM of any discrepancies and documenting in LIMS): AJB 11/1/16

Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook): AA 11/1/16

Pace Analytical

Sample Condition Upon Receipt

WO #: 7036 05

PM: CNP Due Date: 11/08/16

CLIENT: PACE-NY

Client Name: PACE-NY

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [ ] Pace [ ] Other _____

Optional
Proj. Due Date:
Proj. Name:

Tracking #: 7062 9875 6081

Custody Seal on Cooler/Box Present: [X] yes [ ] no Seals intact: [X] yes [ ] no

Packing Material: [ ] Bubble Wrap [X] Bubble Bags [ ] None [ ] Other _____

Thermometer Used: TH077 TH078 Type of Ice: [X] Wet [ ] Blue [ ] None [ ] Samples on ice, cooling process has begun

Cooler Temperature: 1.0

Date and Initials of person examining contents: AD 11/2/16

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present:	[X] Yes	[ ] No	[ ] N/A	1:
Chain of Custody Filled Out:	[X] Yes	[ ] No	[ ] N/A	2:
Chain of Custody Relinquished:	[X] Yes	[ ] No	[ ] N/A	3:
Sampler Name & Signature on COC:	[X] Yes	[ ] No	[ ] N/A	4:
Samples Arrived within Hold Time:	[X] Yes	[ ] No	[ ] N/A	5:
Short Hold Time Analysis (<72hr):	[ ] Yes	[X] No	[ ] N/A	6:
Rush Turn Around Time Requested:	[ ] Yes	[X] 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:	[ ] Yes	[ ] No	[ ] N/A	12:
-Includes date/time/ID/Analysis Matrix: SL WT OIL				
All containers needeing preservation have been checked.	[ ] Yes	[ ] No	[ ] N/A	13:
All containers needing preservation are found to be in compliance with EPA recommendation.	[ ] Yes	[ ] No	[ ] N/A	Initial when completed: / Lot # of added preservative: / Date and Time preservative added:
Exceptions: VOA, micro, TOC, O&G				
Samples checked for dechlorination:	[ ] Yes	[ ] No	[ ] N/A	14:
Headspace in VOA Vials (>6mm):	[ ] Yes	[ ] No	[ ] N/A	15:
Trip Blank Present:	[ ] Yes	[ ] No	[ ] N/A	16:
Trip Blank Custody Seals Present	[ ] Yes	[ ] No	[ ] N/A	
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.00

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

November 14, 2016

Nick Nicholas
Pace Analytical New York
2190 Technology Drive
Schenectady, NY 12308

RE: Project: 16110028
Pace Project No.: 30201248

Dear Nick Nicholas:
Enclosed are the analytical results for sample(s) received by the laboratory on November 02, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Samantha Bayura

Samantha Bayura
samantha.bayura@pacelabs.com
Project Manager

Enclosures

cc: Nicole Johnson, Pace Analytical New York

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 16110028
Pace Project No.: 30201248

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8081B**
Description: 8081B GCS Pesticides
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

General Information:
6 samples were analyzed for EPA 8081B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3546 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.

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.

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

Additional Comments:

Analyte Comments:

QC Batch: 239092

2c: The result for DDE is reported from the reara analytical column due to a high response in the calibration standard on the front analytical cloumn. The lower of the two results is reported.

- SC-26 (Lab ID: 30201248004)
  - 4,4'-DDE

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 6010C**
Description: 6010C MET ICP
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

General Information:
6 samples were analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3050B with any exceptions noted below.

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

6

Continuing Calibration:
All criteria were within method requirements 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.

QC Batch: 239046

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1174705)
  - Molybdenum

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

QC Batch: 239046

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30201248003

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- MS (Lab ID: 1174706)
  - Molybdenum
- MSD (Lab ID: 1174707)
  - Molybdenum

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1174706)
  - Aluminum
  - Antimony
  - Barium
  - Calcium
  - Iron

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 6010C**
Description: 6010C MET ICP
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

QC Batch: 239046

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30201248003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Magnesium
- Manganese
- Potassium

- MSD (Lab ID: 1174707)
  - Aluminum
  - Antimony
  - Barium
  - Calcium
  - Iron
  - Magnesium
  - Manganese
  - Potassium

Additional Comments:

6

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 7471B**
Description: 7471B Mercury
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

General Information:
6 samples were analyzed for EPA 7471B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 7471B 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.

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.

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

Additional Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8270D**
Description: 8270D MSSV Microwave
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

General Information:
6 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

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

QC Batch: 239099

SS: This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

- BLANK (Lab ID: 1174940)
  - 2,4-Dichlorophenol
  - 4,6-Dinitro-2-methylphenol
- LCS (Lab ID: 1174941)
  - 2,4-Dinitrophenol
  - 4,6-Dinitro-2-methylphenol
- MS (Lab ID: 1174942)
  - 2,4-Dinitrophenol
  - 4,6-Dinitro-2-methylphenol
- MSD (Lab ID: 1174943)
  - 2,4-Dinitrophenol
  - 4,6-Dinitro-2-methylphenol
- MULCH-C01 (Lab ID: 30201248017)
  - 2,4-Dinitrophenol
  - 4,6-Dinitro-2-methylphenol
- MULCH-C02 (Lab ID: 30201248018)
  - 2,4-Dinitrophenol
  - 4,6-Dinitro-2-methylphenol
- SC-25 (Lab ID: 30201248003)
  - 2,4-Dinitrophenol
  - 4,6-Dinitro-2-methylphenol
- SC-26 (Lab ID: 30201248004)
  - 2,4-Dinitrophenol
  - 4,6-Dinitro-2-methylphenol
- SC-27 (Lab ID: 30201248009)
  - 2,4-Dinitrophenol
  - 4,6-Dinitro-2-methylphenol
- SC-28 (Lab ID: 30201248010)
  - 2,4-Dinitrophenol

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8270D**
Description: 8270D MSSV Microwave
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

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

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.

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

QC Batch: 239099

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30201248003

R1: RPD value was outside control limits.

- MSD (Lab ID: 1174943)
  - 2,4,5-Trichlorophenol
  - 2,4-Dinitrophenol

Additional Comments:

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

General Information:
14 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 5035A with any exceptions noted below.

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

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

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

QC Batch: 239510

IS: The internal standard response is below criteria. Results may be biased high.

- MULCH-01 (Lab ID: 30201248011)
  - 4-Bromofluorobenzene (S)
  - Naphthalene
- MULCH-02 (Lab ID: 30201248012)
  - 4-Bromofluorobenzene (S)
- MULCH-04 (Lab ID: 30201248014)
  - 4-Bromofluorobenzene (S)
  - Naphthalene
- MULCH-05 (Lab ID: 30201248015)
  - 4-Bromofluorobenzene (S)
- MULCH-06 (Lab ID: 30201248016)
  - 4-Bromofluorobenzene (S)

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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

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

QC Batch: 239510

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MULCH-01 (Lab ID: 30201248011)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MULCH-01 (Lab ID: 30201248011)
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride
- MULCH-02 (Lab ID: 30201248012)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MULCH-02 (Lab ID: 30201248012)
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MULCH-02 (Lab ID: 30201248012)
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride
- MULCH-03 (Lab ID: 30201248013)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MULCH-03 (Lab ID: 30201248013)
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride
- MULCH-04 (Lab ID: 30201248014)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MULCH-04 (Lab ID: 30201248014)
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MULCH-04 (Lab ID: 30201248014)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride
- MULCH-05 (Lab ID: 30201248015)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MULCH-05 (Lab ID: 30201248015)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MULCH-05 (Lab ID: 30201248015)
  - Vinyl acetate
  - Vinyl chloride
- MULCH-06 (Lab ID: 30201248016)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MULCH-06 (Lab ID: 30201248016)
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride
- S-58 (Lab ID: 30201248019)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
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(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-58 (Lab ID: 30201248019)
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-58 (Lab ID: 30201248019)
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride
- S-59 (Lab ID: 30201248020)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-59 (Lab ID: 30201248020)
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride
- S-60 (Lab ID: 30201248001)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-60 (Lab ID: 30201248001)
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-60 (Lab ID: 30201248001)
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride
- S-61 (Lab ID: 30201248002)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-61 (Lab ID: 30201248002)
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride
- S-62 (Lab ID: 30201248005)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-62 (Lab ID: 30201248005)
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-62 (Lab ID: 30201248005)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride
- S-63 (Lab ID: 30201248006)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-63 (Lab ID: 30201248006)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-63 (Lab ID: 30201248006)
  - Vinyl acetate
  - Vinyl chloride
- S-64 (Lab ID: 30201248007)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
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PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-64 (Lab ID: 30201248007)
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride
- S-65 (Lab ID: 30201248008)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1-Dichloropropene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane

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PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-65 (Lab ID: 30201248008)
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromobenzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Dichlorodifluoromethane
  - Dibromomethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene
  - p-Isopropyltoluene
  - sec-Butylbenzene
  - Styrene
  - trans-1,2-Dichloroethene

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

Analyte Comments:

QC Batch: 239510

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-65 (Lab ID: 30201248008)
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - tert-Butylbenzene
  - Vinyl acetate
  - Vinyl chloride

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Greensburg, PA 15601
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PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 7196A**
Description: 7196 Chromium, Hexavalent
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

General Information:
6 samples were analyzed for EPA 7196A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 7196A 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.

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

QC Batch: 239006

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30200782022

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1174579)
  - Chromium, Hexavalent
- MSD (Lab ID: 1174580)
  - Chromium, Hexavalent

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **Trivalent Chromium Calculation**
Description: Trivalent Chromium Calculation
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

General Information:
6 samples were analyzed for Trivalent Chromium Calculation. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times 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.

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

Additional Comments:

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 16110028
Pace Project No.: 30201248

Method: **EPA 9012B**
Description: 9012B Cyanide, Total
Client: Pace Analytical Services, Inc.
Date: November 14, 2016

General Information:
6 samples were analyzed for EPA 9012B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 9012B 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.

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

Additional Comments:

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

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-60 **Lab ID: 30201248001** Collected: 10/28/16 09:37 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	10.9	1	11/08/16 11:33	11/08/16 15:11	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	95-49-8	1c
2-Hexanone	ND	ug/kg	10.9	1	11/08/16 11:33	11/08/16 15:11	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10.9	1	11/08/16 11:33	11/08/16 15:11	108-10-1	1c
Acetone	ND	ug/kg	10.9	1	11/08/16 11:33	11/08/16 15:11	67-64-1	1c
Benzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	71-43-2	1c
Bromobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	108-86-1	1c
Bromochloromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	74-97-5	1c
Bromodichloromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	75-27-4	1c
Bromoform	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	75-25-2	1c
Bromomethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	74-83-9	1c
Carbon disulfide	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	56-23-5	1c
Chlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	108-90-7	1c
Chloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	75-00-3	1c
Chloroform	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	67-66-3	1c
Chloromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	74-87-3	1c
Dibromochloromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	124-48-1	1c
Dibromomethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	75-71-8	1c
Ethylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	1634-04-4	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-60 **Lab ID: 30201248001** Collected: 10/28/16 09:37 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Methylene Chloride	**30.0**	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	75-09-2	1c
Naphthalene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	91-20-3	1c
Styrene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	100-42-5	1c
TOTAL BTEX	ND	ug/kg	32.7	1	11/08/16 11:33	11/08/16 15:11		
Tetrachloroethene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	127-18-4	1c
Toluene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	108-88-3	1c
Trichloroethene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	75-69-4	1c
Vinyl acetate	ND	ug/kg	54.4	1	11/08/16 11:33	11/08/16 15:11	108-05-4	1c
Vinyl chloride	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	75-01-4	1c
Xylene (Total)	ND	ug/kg	16.3	1	11/08/16 11:33	11/08/16 15:11	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	10061-01-5	1c
m&p-Xylene	ND	ug/kg	10.9	1	11/08/16 11:33	11/08/16 15:11	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	104-51-8	1c
n-Propylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	103-65-1	1c
o-Xylene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 15:11	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	102	%	68-135	1	11/08/16 11:33	11/08/16 15:11	2037-26-5	
4-Bromofluorobenzene (S)	103	%	65-146	1	11/08/16 11:33	11/08/16 15:11	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	69-137	1	11/08/16 11:33	11/08/16 15:11	17060-07-0	
Dibromofluoromethane (S)	101	%	70-130	1	11/08/16 11:33	11/08/16 15:11	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**10.1**	%	0.10	1		11/07/16 16:18		

Sample: S-61 **Lab ID: 30201248002** Collected: 10/28/16 09:38 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	75-35-4	1c

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-61 **Lab ID: 30201248002** Collected: 10/28/16 09:38 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1-Dichloropropene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	11.8	1	11/08/16 11:33	11/08/16 15:37	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	95-49-8	1c
2-Hexanone	ND	ug/kg	11.8	1	11/08/16 11:33	11/08/16 15:37	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11.8	1	11/08/16 11:33	11/08/16 15:37	108-10-1	1c
Acetone	ND	ug/kg	11.8	1	11/08/16 11:33	11/08/16 15:37	67-64-1	1c
Benzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	71-43-2	1c
Bromobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	108-86-1	1c
Bromochloromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	74-97-5	1c
Bromodichloromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	75-27-4	1c
Bromoform	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	75-25-2	1c
Bromomethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	74-83-9	1c
Carbon disulfide	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	56-23-5	1c
Chlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	108-90-7	1c
Chloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	75-00-3	1c
Chloroform	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	67-66-3	1c
Chloromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	74-87-3	1c
Dibromochloromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	124-48-1	1c
Dibromomethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	75-71-8	1c
Ethylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	1634-04-4	1c
Methylene Chloride	**32.5**	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	75-09-2	1c
Naphthalene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	91-20-3	1c
Styrene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	100-42-5	1c
TOTAL BTEX	ND	ug/kg	35.4	1	11/08/16 11:33	11/08/16 15:37		
Tetrachloroethene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	127-18-4	1c
Toluene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	108-88-3	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-61 **Lab ID: 30201248002** Collected: 10/28/16 09:38 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Trichloroethene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	75-69-4	1c
Vinyl acetate	ND	ug/kg	58.9	1	11/08/16 11:33	11/08/16 15:37	108-05-4	1c
Vinyl chloride	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	75-01-4	1c
Xylene (Total)	ND	ug/kg	17.7	1	11/08/16 11:33	11/08/16 15:37	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	10061-01-5	1c
m&p-Xylene	ND	ug/kg	11.8	1	11/08/16 11:33	11/08/16 15:37	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	104-51-8	1c
n-Propylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	103-65-1	1c
o-Xylene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 15:37	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	99	%	68-135	1	11/08/16 11:33	11/08/16 15:37	2037-26-5	
4-Bromofluorobenzene (S)	103	%	65-146	1	11/08/16 11:33	11/08/16 15:37	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	69-137	1	11/08/16 11:33	11/08/16 15:37	17060-07-0	
Dibromofluoromethane (S)	101	%	70-130	1	11/08/16 11:33	11/08/16 15:37	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**8.6**	%	0.10	1		11/07/16 16:18		

Sample: SC-25 **Lab ID: 30201248003** Collected: 10/28/16 09:36 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3546							
Aldrin	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 20:47	309-00-2	
alpha-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 20:47	319-84-6	
beta-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 20:47	319-85-7	
delta-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 20:47	319-86-8	
gamma-BHC (Lindane)	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 20:47	58-89-9	
alpha-Chlordane	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 20:47	5103-71-9	
gamma-Chlordane	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 20:47	5103-74-2	
4,4'-DDD	ND	ug/kg	3.7	1	11/03/16 15:50	11/07/16 20:47	72-54-8	
4,4'-DDE	ND	ug/kg	3.7	1	11/03/16 15:50	11/07/16 20:47	72-55-9	CH
4,4'-DDT	ND	ug/kg	3.7	1	11/03/16 15:50	11/07/16 20:47	50-29-3	
Dieldrin	ND	ug/kg	3.7	1	11/03/16 15:50	11/07/16 20:47	60-57-1	
Endosulfan I	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 20:47	959-98-8	
Endosulfan II	ND	ug/kg	3.7	1	11/03/16 15:50	11/07/16 20:47	33213-65-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-25 **Lab ID: 30201248003** Collected: 10/28/16 09:36 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3546							
Endosulfan sulfate	ND	ug/kg	3.7	1	11/03/16 15:50	11/07/16 20:47	1031-07-8	
Endrin	ND	ug/kg	3.7	1	11/03/16 15:50	11/07/16 20:47	72-20-8	
Endrin aldehyde	ND	ug/kg	3.7	1	11/03/16 15:50	11/07/16 20:47	7421-93-4	
Endrin ketone	ND	ug/kg	3.7	1	11/03/16 15:50	11/07/16 20:47	53494-70-5	
Heptachlor	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 20:47	76-44-8	
Heptachlor epoxide	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 20:47	1024-57-3	
Methoxychlor	ND	ug/kg	18.3	1	11/03/16 15:50	11/07/16 20:47	72-43-5	CH
Toxaphene	ND	ug/kg	18.3	1	11/03/16 15:50	11/07/16 20:47	8001-35-2	
Surrogates								
Tetrachloro-m-xylene (S)	57	%	37-113	1	11/03/16 15:50	11/07/16 20:47	877-09-8	
Decachlorobiphenyl (S)	63	%	39-122	1	11/03/16 15:50	11/07/16 20:47	2051-24-3	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B							
Aluminum	**5920**	mg/kg	10.8	1	11/03/16 11:36	11/04/16 09:55	7429-90-5	M1
Antimony	ND	mg/kg	0.65	1	11/03/16 11:36	11/04/16 09:55	7440-36-0	M1
Arsenic	**3.3**	mg/kg	0.54	1	11/03/16 11:36	11/04/16 09:55	7440-38-2	
Barium	**29.9**	mg/kg	2.2	1	11/03/16 11:36	11/04/16 09:55	7440-39-3	M1
Beryllium	**0.38**	mg/kg	0.22	1	11/03/16 11:36	11/04/16 09:55	7440-41-7	
Boron	ND	mg/kg	5.4	1	11/03/16 11:36	11/04/16 09:55	7440-42-8	
Cadmium	ND	mg/kg	0.32	1	11/03/16 11:36	11/04/16 09:55	7440-43-9	
Calcium	**13600**	mg/kg	216	1	11/03/16 11:36	11/04/16 09:55	7440-70-2	M1
Chromium	**7.7**	mg/kg	0.54	1	11/03/16 11:36	11/04/16 11:23	7440-47-3	
Cobalt	**5.8**	mg/kg	1.1	1	11/03/16 11:36	11/04/16 09:55	7440-48-4	
Copper	**15.5**	mg/kg	1.1	1	11/03/16 11:36	11/04/16 09:55	7440-50-8	
Iron	**14300**	mg/kg	10.8	1	11/03/16 11:36	11/04/16 09:55	7439-89-6	M1
Lead	**6.1**	mg/kg	0.54	1	11/03/16 11:36	11/04/16 11:23	7439-92-1	
Magnesium	**5280**	mg/kg	54.0	1	11/03/16 11:36	11/04/16 09:55	7439-95-4	M1
Manganese	**274**	mg/kg	1.1	1	11/03/16 11:36	11/04/16 09:55	7439-96-5	M1
Molybdenum	ND	mg/kg	2.2	1	11/03/16 11:36	11/04/16 09:55	7439-98-7	L1,M0
Nickel	**11.9**	mg/kg	2.2	1	11/03/16 11:36	11/04/16 09:55	7440-02-0	
Potassium	**1110**	mg/kg	54.0	1	11/03/16 11:36	11/04/16 09:55	7440-09-7	M1
Selenium	ND	mg/kg	0.86	1	11/03/16 11:36	11/04/16 09:55	7782-49-2	
Silver	ND	mg/kg	0.65	1	11/03/16 11:36	11/04/16 09:55	7440-22-4	
Sodium	ND	mg/kg	540	1	11/03/16 11:36	11/04/16 09:55	7440-23-5	
Thallium	ND	mg/kg	2.2	1	11/03/16 11:36	11/04/16 09:55	7440-28-0	
Vanadium	**12.0**	mg/kg	1.1	1	11/03/16 11:36	11/04/16 11:23	7440-62-2	
Zinc	**37.6**	mg/kg	1.1	1	11/03/16 11:36	11/04/16 09:55	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B							
Mercury	ND	mg/kg	0.10	1	11/03/16 14:15	11/04/16 01:58	7439-97-6	
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	83-32-9	
Acenaphthylene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	208-96-8	
Anthracene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	120-12-7	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-25 **Lab ID: 30201248003** Collected: 10/28/16 09:36 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
Benzo(a)anthracene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	56-55-3	
Benzo(a)pyrene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	207-08-9	
Benzyl alcohol	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	101-55-3	
Butylbenzylphthalate	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	59-50-7	
4-Chloroaniline	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	108-60-1	
2-Chloronaphthalene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	91-58-7	
2-Chlorophenol	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	7005-72-3	
Chrysene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	53-70-3	
Dibenzofuran	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	120-83-2	
Diethylphthalate	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	105-67-9	
Dimethylphthalate	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	131-11-3	
Di-n-butylphthalate	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	907	1	11/03/16 15:19	11/10/16 20:11	534-52-1	SS
2,4-Dinitrophenol	ND	ug/kg	907	1	11/03/16 15:19	11/10/16 20:11	51-28-5	R1,SS
2,4-Dinitrotoluene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	606-20-2	
Di-n-octylphthalate	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	117-81-7	
Fluoranthene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	206-44-0	
Fluorene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	87-68-3	
Hexachlorobenzene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	77-47-4	
Hexachloroethane	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	193-39-5	
Isophorone	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	78-59-1	
2-Methylnaphthalene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	726	1	11/03/16 15:19	11/10/16 20:11		
Naphthalene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	91-20-3	

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REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-25 **Lab ID: 30201248003** Collected: 10/28/16 09:36 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
2-Nitroaniline	ND	ug/kg	907	1	11/03/16 15:19	11/10/16 20:11	88-74-4	
3-Nitroaniline	ND	ug/kg	907	1	11/03/16 15:19	11/10/16 20:11	99-09-2	
4-Nitroaniline	ND	ug/kg	907	1	11/03/16 15:19	11/10/16 20:11	100-01-6	
Nitrobenzene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	98-95-3	
2-Nitrophenol	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	88-75-5	
4-Nitrophenol	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	86-30-6	
Pentachlorophenol	ND	ug/kg	907	1	11/03/16 15:19	11/10/16 20:11	87-86-5	
Phenanthrene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	85-01-8	
Phenol	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	108-95-2	
Pyrene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	907	1	11/03/16 15:19	11/10/16 20:11	95-95-4	R1
2,4,6-Trichlorophenol	ND	ug/kg	363	1	11/03/16 15:19	11/10/16 20:11	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	77	%	33-104	1	11/03/16 15:19	11/10/16 20:11	4165-60-0	
2-Fluorobiphenyl (S)	72	%	38-105	1	11/03/16 15:19	11/10/16 20:11	321-60-8	
Terphenyl-d14 (S)	76	%	33-149	1	11/03/16 15:19	11/10/16 20:11	1718-51-0	
Phenol-d6 (S)	77	%	32-111	1	11/03/16 15:19	11/10/16 20:11	13127-88-3	
2-Fluorophenol (S)	80	%	10-123	1	11/03/16 15:19	11/10/16 20:11	367-12-4	
2,4,6-Tribromophenol (S)	71	%	10-140	1	11/03/16 15:19	11/10/16 20:11	118-79-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**9.2**	%	0.10	1		11/07/16 16:18		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196A Preparation Method: EPA 7196A							
Chromium, Hexavalent	ND	mg/kg	1.1	1	11/03/16 11:00	11/04/16 13:50	18540-29-9	
Trivalent Chromium Calculation	Analytical Method: Trivalent Chromium Calculation							
Chromium, Trivalent	**7.0**	mg/kg	1.0	1		11/08/16 15:21	16065-83-1	
9012B Cyanide, Total	Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	ND	mg/kg	0.66	1	11/07/16 20:30	11/07/16 22:05	57-12-5	

Sample: SC-26 **Lab ID: 30201248004** Collected: 10/28/16 09:38 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3546							
Aldrin	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 22:37	309-00-2	
alpha-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 22:37	319-84-6	
beta-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 22:37	319-85-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-26 **Lab ID: 30201248004** Collected: 10/28/16 09:38 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3546							
delta-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 22:37	319-86-8	
gamma-BHC (Lindane)	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 22:37	58-89-9	
alpha-Chlordane	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 22:37	5103-71-9	
gamma-Chlordane	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 22:37	5103-74-2	
4,4'-DDD	**7.7**	ug/kg	3.6	1	11/03/16 15:50	11/07/16 22:37	72-54-8	
4,4'-DDE	**15.1**	ug/kg	3.6	1	11/03/16 15:50	11/07/16 22:37	72-55-9	2c
4,4'-DDT	**4.1**	ug/kg	3.6	1	11/03/16 15:50	11/07/16 22:37	50-29-3	
Dieldrin	ND	ug/kg	3.6	1	11/03/16 15:50	11/07/16 22:37	60-57-1	
Endosulfan I	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 22:37	959-98-8	
Endosulfan II	ND	ug/kg	3.6	1	11/03/16 15:50	11/07/16 22:37	33213-65-9	
Endosulfan sulfate	ND	ug/kg	3.6	1	11/03/16 15:50	11/07/16 22:37	1031-07-8	
Endrin	ND	ug/kg	3.6	1	11/03/16 15:50	11/07/16 22:37	72-20-8	
Endrin aldehyde	ND	ug/kg	3.6	1	11/03/16 15:50	11/07/16 22:37	7421-93-4	
Endrin ketone	ND	ug/kg	3.6	1	11/03/16 15:50	11/07/16 22:37	53494-70-5	
Heptachlor	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 22:37	76-44-8	
Heptachlor epoxide	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 22:37	1024-57-3	
Methoxychlor	ND	ug/kg	17.9	1	11/03/16 15:50	11/07/16 22:37	72-43-5	
Toxaphene	ND	ug/kg	17.9	1	11/03/16 15:50	11/07/16 22:37	8001-35-2	
Surrogates								
Tetrachloro-m-xylene (S)	57	%	37-113	1	11/03/16 15:50	11/07/16 22:37	877-09-8	
Decachlorobiphenyl (S)	64	%	39-122	1	11/03/16 15:50	11/07/16 22:37	2051-24-3	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B							
Aluminum	**6040**	mg/kg	10	1	11/03/16 11:36	11/04/16 10:02	7429-90-5	
Antimony	ND	mg/kg	0.60	1	11/03/16 11:36	11/04/16 10:02	7440-36-0	
Arsenic	**3.4**	mg/kg	0.50	1	11/03/16 11:36	11/04/16 10:02	7440-38-2	
Barium	**31.6**	mg/kg	2.0	1	11/03/16 11:36	11/04/16 10:02	7440-39-3	
Beryllium	**0.39**	mg/kg	0.20	1	11/03/16 11:36	11/04/16 10:02	7440-41-7	
Boron	ND	mg/kg	5.0	1	11/03/16 11:36	11/04/16 10:02	7440-42-8	
Cadmium	ND	mg/kg	0.30	1	11/03/16 11:36	11/04/16 10:02	7440-43-9	
Calcium	**19500**	mg/kg	199	1	11/03/16 11:36	11/04/16 10:02	7440-70-2	
Chromium	**8.1**	mg/kg	0.50	1	11/03/16 11:36	11/04/16 11:30	7440-47-3	
Cobalt	**6.0**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 10:02	7440-48-4	
Copper	**15.7**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 10:02	7440-50-8	
Iron	**14500**	mg/kg	10	1	11/03/16 11:36	11/04/16 10:02	7439-89-6	
Lead	**6.0**	mg/kg	0.50	1	11/03/16 11:36	11/04/16 11:30	7439-92-1	
Magnesium	**6500**	mg/kg	49.8	1	11/03/16 11:36	11/04/16 10:02	7439-95-4	
Manganese	**284**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 10:02	7439-96-5	
Molybdenum	ND	mg/kg	2.0	1	11/03/16 11:36	11/04/16 10:02	7439-98-7	L1
Nickel	**12.1**	mg/kg	2.0	1	11/03/16 11:36	11/04/16 10:02	7440-02-0	
Potassium	**1080**	mg/kg	49.8	1	11/03/16 11:36	11/04/16 10:02	7440-09-7	
Selenium	ND	mg/kg	0.80	1	11/03/16 11:36	11/04/16 10:02	7782-49-2	
Silver	ND	mg/kg	0.60	1	11/03/16 11:36	11/04/16 10:02	7440-22-4	
Sodium	ND	mg/kg	498	1	11/03/16 11:36	11/04/16 10:02	7440-23-5	
Thallium	ND	mg/kg	2.0	1	11/03/16 11:36	11/04/16 10:02	7440-28-0	
Vanadium	**12.1**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 11:30	7440-62-2	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-26 **Lab ID: 30201248004** Collected: 10/28/16 09:38 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C		Preparation Method: EPA 3050B					
Zinc	**38.3**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 10:02	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B		Preparation Method: EPA 7471B					
Mercury	ND	mg/kg	0.10	1	11/03/16 14:15	11/04/16 02:03	7439-97-6	
8270D MSSV Microwave	Analytical Method: EPA 8270D		Preparation Method: EPA 3546					
Acenaphthene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	83-32-9	
Acenaphthylene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	208-96-8	
Anthracene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	120-12-7	
Benzo(a)anthracene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	56-55-3	
Benzo(a)pyrene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	207-08-9	
Benzyl alcohol	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	101-55-3	
Butylbenzylphthalate	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	59-50-7	
4-Chloroaniline	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	108-60-1	
2-Chloronaphthalene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	91-58-7	
2-Chlorophenol	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	7005-72-3	
Chrysene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	53-70-3	
Dibenzofuran	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	120-83-2	
Diethylphthalate	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	105-67-9	
Dimethylphthalate	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	131-11-3	
Di-n-butylphthalate	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	886	1	11/03/16 15:19	11/10/16 21:15	534-52-1	SS
2,4-Dinitrophenol	ND	ug/kg	886	1	11/03/16 15:19	11/10/16 21:15	51-28-5	SS
2,4-Dinitrotoluene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	606-20-2	
Di-n-octylphthalate	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	117-81-7	
Fluoranthene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	206-44-0	
Fluorene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	86-73-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-26 **Lab ID: 30201248004** Collected: 10/28/16 09:38 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
Hexachloro-1,3-butadiene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	87-68-3	
Hexachlorobenzene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	77-47-4	
Hexachloroethane	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	193-39-5	
Isophorone	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	78-59-1	
2-Methylnaphthalene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	708	1	11/03/16 15:19	11/10/16 21:15		
Naphthalene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	91-20-3	
2-Nitroaniline	ND	ug/kg	886	1	11/03/16 15:19	11/10/16 21:15	88-74-4	
3-Nitroaniline	ND	ug/kg	886	1	11/03/16 15:19	11/10/16 21:15	99-09-2	
4-Nitroaniline	ND	ug/kg	886	1	11/03/16 15:19	11/10/16 21:15	100-01-6	
Nitrobenzene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	98-95-3	
2-Nitrophenol	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	88-75-5	
4-Nitrophenol	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	86-30-6	
Pentachlorophenol	ND	ug/kg	886	1	11/03/16 15:19	11/10/16 21:15	87-86-5	
Phenanthrene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	85-01-8	
Phenol	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	108-95-2	
Pyrene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	886	1	11/03/16 15:19	11/10/16 21:15	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	354	1	11/03/16 15:19	11/10/16 21:15	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	70	%	33-104	1	11/03/16 15:19	11/10/16 21:15	4165-60-0	
2-Fluorobiphenyl (S)	69	%	38-105	1	11/03/16 15:19	11/10/16 21:15	321-60-8	
Terphenyl-d14 (S)	68	%	33-149	1	11/03/16 15:19	11/10/16 21:15	1718-51-0	
Phenol-d6 (S)	70	%	32-111	1	11/03/16 15:19	11/10/16 21:15	13127-88-3	
2-Fluorophenol (S)	74	%	10-123	1	11/03/16 15:19	11/10/16 21:15	367-12-4	
2,4,6-Tribromophenol (S)	64	%	10-140	1	11/03/16 15:19	11/10/16 21:15	118-79-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**8.7**	%	0.10	1		11/07/16 16:18		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196A Preparation Method: EPA 7196A							
Chromium, Hexavalent	ND	mg/kg	1.1	1	11/03/16 11:00	11/04/16 13:50	18540-29-9	
Trivalent Chromium Calculation	Analytical Method: Trivalent Chromium Calculation							
Chromium, Trivalent	**7.4**	mg/kg	1.0	1		11/08/16 15:21	16065-83-1	
9012B Cyanide, Total	Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	ND	mg/kg	0.66	1	11/07/16 20:30	11/07/16 22:08	57-12-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-62 **Lab ID: 30201248005** Collected: 10/28/16 09:40 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	11.3	1	11/08/16 11:33	11/08/16 16:02	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	95-49-8	1c
2-Hexanone	ND	ug/kg	11.3	1	11/08/16 11:33	11/08/16 16:02	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11.3	1	11/08/16 11:33	11/08/16 16:02	108-10-1	1c
Acetone	**69.4**	ug/kg	11.3	1	11/08/16 11:33	11/08/16 16:02	67-64-1	1c
Benzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	71-43-2	1c
Bromobenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	108-86-1	1c
Bromochloromethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	74-97-5	1c
Bromodichloromethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	75-27-4	1c
Bromoform	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	75-25-2	1c
Bromomethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	74-83-9	1c
Carbon disulfide	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	56-23-5	1c
Chlorobenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	108-90-7	1c
Chloroethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	75-00-3	1c
Chloroform	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	67-66-3	1c
Chloromethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	74-87-3	1c
Dibromochloromethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	124-48-1	1c
Dibromomethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	75-71-8	1c
Ethylbenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	1634-04-4	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-62 **Lab ID: 30201248005** Collected: 10/28/16 09:40 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Methylene Chloride	**43.0**	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	75-09-2	1c
Naphthalene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	91-20-3	1c
Styrene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	100-42-5	1c
TOTAL BTEX	ND	ug/kg	34.0	1	11/08/16 11:33	11/08/16 16:02		
Tetrachloroethene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	127-18-4	1c
Toluene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	108-88-3	1c
Trichloroethene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	75-69-4	1c
Vinyl acetate	ND	ug/kg	56.7	1	11/08/16 11:33	11/08/16 16:02	108-05-4	1c
Vinyl chloride	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	75-01-4	1c
Xylene (Total)	ND	ug/kg	17.0	1	11/08/16 11:33	11/08/16 16:02	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	10061-01-5	1c
m&p-Xylene	ND	ug/kg	11.3	1	11/08/16 11:33	11/08/16 16:02	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	104-51-8	1c
n-Propylbenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	103-65-1	1c
o-Xylene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	5.7	1	11/08/16 11:33	11/08/16 16:02	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	100	%	68-135	1	11/08/16 11:33	11/08/16 16:02	2037-26-5	
4-Bromofluorobenzene (S)	102	%	65-146	1	11/08/16 11:33	11/08/16 16:02	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	69-137	1	11/08/16 11:33	11/08/16 16:02	17060-07-0	
Dibromofluoromethane (S)	101	%	70-130	1	11/08/16 11:33	11/08/16 16:02	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**12.1**	%	0.10	1		11/07/16 16:18		

Sample: S-63 **Lab ID: 30201248006** Collected: 10/28/16 09:41 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	75-35-4	1c

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-63 **Lab ID: 30201248006** Collected: 10/28/16 09:41 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1-Dichloropropene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	10.8	1	11/08/16 11:33	11/08/16 16:28	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	95-49-8	1c
2-Hexanone	ND	ug/kg	10.8	1	11/08/16 11:33	11/08/16 16:28	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10.8	1	11/08/16 11:33	11/08/16 16:28	108-10-1	1c
Acetone	**45.9**	ug/kg	10.8	1	11/08/16 11:33	11/08/16 16:28	67-64-1	1c
Benzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	71-43-2	1c
Bromobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	108-86-1	1c
Bromochloromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	74-97-5	1c
Bromodichloromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	75-27-4	1c
Bromoform	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	75-25-2	1c
Bromomethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	74-83-9	1c
Carbon disulfide	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	56-23-5	1c
Chlorobenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	108-90-7	1c
Chloroethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	75-00-3	1c
Chloroform	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	67-66-3	1c
Chloromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	74-87-3	1c
Dibromochloromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	124-48-1	1c
Dibromomethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	75-71-8	1c
Ethylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	1634-04-4	1c
Methylene Chloride	**25.5**	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	75-09-2	1c
Naphthalene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	91-20-3	1c
Styrene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	100-42-5	1c
TOTAL BTEX	ND	ug/kg	32.4	1	11/08/16 11:33	11/08/16 16:28		
Tetrachloroethene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	127-18-4	1c
Toluene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	108-88-3	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-63 **Lab ID: 30201248006** Collected: 10/28/16 09:41 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Trichloroethene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	75-69-4	1c
Vinyl acetate	ND	ug/kg	53.9	1	11/08/16 11:33	11/08/16 16:28	108-05-4	1c
Vinyl chloride	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	75-01-4	1c
Xylene (Total)	ND	ug/kg	16.2	1	11/08/16 11:33	11/08/16 16:28	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	10061-01-5	1c
m&p-Xylene	ND	ug/kg	10.8	1	11/08/16 11:33	11/08/16 16:28	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	104-51-8	1c
n-Propylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	103-65-1	1c
o-Xylene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1	11/08/16 11:33	11/08/16 16:28	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	98	%	68-135	1	11/08/16 11:33	11/08/16 16:28	2037-26-5	
4-Bromofluorobenzene (S)	101	%	65-146	1	11/08/16 11:33	11/08/16 16:28	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	69-137	1	11/08/16 11:33	11/08/16 16:28	17060-07-0	
Dibromofluoromethane (S)	101	%	70-130	1	11/08/16 11:33	11/08/16 16:28	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**7.1**	%	0.10	1		11/07/16 16:18		

Sample: S-64 **Lab ID: 30201248007** Collected: 10/28/16 09:42 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	96-12-8	1c

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-64 **Lab ID: 30201248007** Collected: 10/28/16 09:42 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,2-Dibromoethane (EDB)	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	11.0	1	11/08/16 11:33	11/08/16 16:54	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	95-49-8	1c
2-Hexanone	ND	ug/kg	11.0	1	11/08/16 11:33	11/08/16 16:54	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11.0	1	11/08/16 11:33	11/08/16 16:54	108-10-1	1c
Acetone	ND	ug/kg	11.0	1	11/08/16 11:33	11/08/16 16:54	67-64-1	1c
Benzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	71-43-2	1c
Bromobenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	108-86-1	1c
Bromochloromethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	74-97-5	1c
Bromodichloromethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	75-27-4	1c
Bromoform	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	75-25-2	1c
Bromomethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	74-83-9	1c
Carbon disulfide	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	56-23-5	1c
Chlorobenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	108-90-7	1c
Chloroethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	75-00-3	1c
Chloroform	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	67-66-3	1c
Chloromethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	74-87-3	1c
Dibromochloromethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	124-48-1	1c
Dibromomethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	75-71-8	1c
Ethylbenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	1634-04-4	1c
Methylene Chloride	**25.2**	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	75-09-2	1c
Naphthalene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	91-20-3	1c
Styrene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	100-42-5	1c
TOTAL BTEX	ND	ug/kg	33.0	1	11/08/16 11:33	11/08/16 16:54		
Tetrachloroethene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	127-18-4	1c
Toluene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	108-88-3	1c
Trichloroethene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	75-69-4	1c
Vinyl acetate	ND	ug/kg	55.0	1	11/08/16 11:33	11/08/16 16:54	108-05-4	1c
Vinyl chloride	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	75-01-4	1c
Xylene (Total)	ND	ug/kg	16.5	1	11/08/16 11:33	11/08/16 16:54	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	156-59-2	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-64 **Lab ID: 30201248007** Collected: 10/28/16 09:42 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
cis-1,3-Dichloropropene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	10061-01-5	1c
m&p-Xylene	ND	ug/kg	11.0	1	11/08/16 11:33	11/08/16 16:54	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	104-51-8	1c
n-Propylbenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	103-65-1	1c
o-Xylene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	5.5	1	11/08/16 11:33	11/08/16 16:54	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	99	%	68-135	1	11/08/16 11:33	11/08/16 16:54	2037-26-5	
4-Bromofluorobenzene (S)	99	%	65-146	1	11/08/16 11:33	11/08/16 16:54	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	69-137	1	11/08/16 11:33	11/08/16 16:54	17060-07-0	
Dibromofluoromethane (S)	99	%	70-130	1	11/08/16 11:33	11/08/16 16:54	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**10.2**	%	0.10	1		11/07/16 16:17		

Sample: S-65 **Lab ID: 30201248008** Collected: 10/28/16 09:43 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	142-28-9	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-65 **Lab ID: 30201248008** Collected: 10/28/16 09:43 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,4-Dichlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	11.1	1	11/08/16 11:33	11/08/16 17:20	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	95-49-8	1c
2-Hexanone	ND	ug/kg	11.1	1	11/08/16 11:33	11/08/16 17:20	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11.1	1	11/08/16 11:33	11/08/16 17:20	108-10-1	1c
Acetone	**28.8**	ug/kg	11.1	1	11/08/16 11:33	11/08/16 17:20	67-64-1	1c
Benzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	71-43-2	1c
Bromobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	108-86-1	1c
Bromochloromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	74-97-5	1c
Bromodichloromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	75-27-4	1c
Bromoform	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	75-25-2	1c
Bromomethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	74-83-9	1c
Carbon disulfide	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	56-23-5	1c
Chlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	108-90-7	1c
Chloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	75-00-3	1c
Chloroform	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	67-66-3	1c
Chloromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	74-87-3	1c
Dibromochloromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	124-48-1	1c
Dibromomethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	75-71-8	1c
Ethylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	1634-04-4	1c
Methylene Chloride	**26.0**	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	75-09-2	1c
Naphthalene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	91-20-3	1c
Styrene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	100-42-5	1c
TOTAL BTEX	ND	ug/kg	33.4	1	11/08/16 11:33	11/08/16 17:20		
Tetrachloroethene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	127-18-4	1c
Toluene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	108-88-3	1c
Trichloroethene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	75-69-4	1c
Vinyl acetate	ND	ug/kg	55.6	1	11/08/16 11:33	11/08/16 17:20	108-05-4	1c
Vinyl chloride	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	75-01-4	1c
Xylene (Total)	ND	ug/kg	16.7	1	11/08/16 11:33	11/08/16 17:20	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	10061-01-5	1c
m&p-Xylene	ND	ug/kg	11.1	1	11/08/16 11:33	11/08/16 17:20	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	104-51-8	1c
n-Propylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	103-65-1	1c
o-Xylene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	99-87-6	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-65 **Lab ID: 30201248008** Collected: 10/28/16 09:43 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
sec-Butylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 17:20	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	101	%	68-135	1	11/08/16 11:33	11/08/16 17:20	2037-26-5	
4-Bromofluorobenzene (S)	102	%	65-146	1	11/08/16 11:33	11/08/16 17:20	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	69-137	1	11/08/16 11:33	11/08/16 17:20	17060-07-0	
Dibromofluoromethane (S)	99	%	70-130	1	11/08/16 11:33	11/08/16 17:20	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**7.1**	%	0.10	1		11/07/16 16:17		

Sample: SC-27 **Lab ID: 30201248009** Collected: 10/28/16 09:41 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3546							
Aldrin	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:04	309-00-2	
alpha-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:04	319-84-6	
beta-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:04	319-85-7	
delta-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:04	319-86-8	
gamma-BHC (Lindane)	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:04	58-89-9	
alpha-Chlordane	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:04	5103-71-9	
gamma-Chlordane	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:04	5103-74-2	
4,4'-DDD	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:04	72-54-8	
4,4'-DDE	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:04	72-55-9	
4,4'-DDT	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:04	50-29-3	
Dieldrin	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:04	60-57-1	
Endosulfan I	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:04	959-98-8	
Endosulfan II	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:04	33213-65-9	
Endosulfan sulfate	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:04	1031-07-8	
Endrin	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:04	72-20-8	
Endrin aldehyde	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:04	7421-93-4	
Endrin ketone	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:04	53494-70-5	
Heptachlor	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:04	76-44-8	
Heptachlor epoxide	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:04	1024-57-3	
Methoxychlor	ND	ug/kg	17.7	1	11/03/16 15:50	11/07/16 23:04	72-43-5	
Toxaphene	ND	ug/kg	17.7	1	11/03/16 15:50	11/07/16 23:04	8001-35-2	
Surrogates								
Tetrachloro-m-xylene (S)	52	%	37-113	1	11/03/16 15:50	11/07/16 23:04	877-09-8	
Decachlorobiphenyl (S)	60	%	39-122	1	11/03/16 15:50	11/07/16 23:04	2051-24-3	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-27 **Lab ID: 30201248009** Collected: 10/28/16 09:41 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B							
Aluminum	**6080**	mg/kg	9.5	1	11/03/16 11:36	11/04/16 10:04	7429-90-5	
Antimony	ND	mg/kg	0.57	1	11/03/16 11:36	11/04/16 10:04	7440-36-0	
Arsenic	**3.5**	mg/kg	0.48	1	11/03/16 11:36	11/04/16 10:04	7440-38-2	
Barium	**27.3**	mg/kg	1.9	1	11/03/16 11:36	11/04/16 10:04	7440-39-3	
Beryllium	**0.37**	mg/kg	0.19	1	11/03/16 11:36	11/04/16 10:04	7440-41-7	
Boron	ND	mg/kg	4.8	1	11/03/16 11:36	11/04/16 10:04	7440-42-8	
Cadmium	ND	mg/kg	0.29	1	11/03/16 11:36	11/04/16 10:04	7440-43-9	
Calcium	**12300**	mg/kg	191	1	11/03/16 11:36	11/04/16 10:04	7440-70-2	
Chromium	**7.6**	mg/kg	0.48	1	11/03/16 11:36	11/04/16 11:32	7440-47-3	
Cobalt	**5.9**	mg/kg	0.95	1	11/03/16 11:36	11/04/16 10:04	7440-48-4	
Copper	**15.0**	mg/kg	0.95	1	11/03/16 11:36	11/04/16 10:04	7440-50-8	
Iron	**14800**	mg/kg	9.5	1	11/03/16 11:36	11/04/16 10:04	7439-89-6	
Lead	**5.5**	mg/kg	0.48	1	11/03/16 11:36	11/04/16 11:32	7439-92-1	
Magnesium	**5060**	mg/kg	47.6	1	11/03/16 11:36	11/04/16 10:04	7439-95-4	
Manganese	**282**	mg/kg	0.95	1	11/03/16 11:36	11/04/16 10:04	7439-96-5	
Molybdenum	ND	mg/kg	1.9	1	11/03/16 11:36	11/04/16 10:04	7439-98-7	L1
Nickel	**11.8**	mg/kg	1.9	1	11/03/16 11:36	11/04/16 10:04	7440-02-0	
Potassium	**959**	mg/kg	47.6	1	11/03/16 11:36	11/04/16 10:04	7440-09-7	
Selenium	ND	mg/kg	0.76	1	11/03/16 11:36	11/04/16 10:04	7782-49-2	
Silver	ND	mg/kg	0.57	1	11/03/16 11:36	11/04/16 10:04	7440-22-4	
Sodium	ND	mg/kg	476	1	11/03/16 11:36	11/04/16 10:04	7440-23-5	
Thallium	ND	mg/kg	1.9	1	11/03/16 11:36	11/04/16 10:04	7440-28-0	
Vanadium	**11.6**	mg/kg	0.95	1	11/03/16 11:36	11/04/16 11:32	7440-62-2	
Zinc	**38.1**	mg/kg	0.95	1	11/03/16 11:36	11/04/16 10:04	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B							
Mercury	ND	mg/kg	0.10	1	11/03/16 14:15	11/04/16 02:05	7439-97-6	
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	83-32-9	
Acenaphthylene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	208-96-8	
Anthracene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	120-12-7	
Benzo(a)anthracene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	56-55-3	
Benzo(a)pyrene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	207-08-9	
Benzyl alcohol	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	101-55-3	
Butylbenzylphthalate	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	59-50-7	
4-Chloroaniline	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	108-60-1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-27 **Lab ID: 30201248009** Collected: 10/28/16 09:41 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
2-Chloronaphthalene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	91-58-7	
2-Chlorophenol	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	7005-72-3	
Chrysene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	53-70-3	
Dibenzofuran	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	120-83-2	
Diethylphthalate	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	105-67-9	
Dimethylphthalate	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	131-11-3	
Di-n-butylphthalate	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	872	1	11/03/16 15:19	11/10/16 21:36	534-52-1	SS
2,4-Dinitrophenol	ND	ug/kg	872	1	11/03/16 15:19	11/10/16 21:36	51-28-5	SS
2,4-Dinitrotoluene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	606-20-2	
Di-n-octylphthalate	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	117-81-7	
Fluoranthene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	206-44-0	
Fluorene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	87-68-3	
Hexachlorobenzene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	77-47-4	
Hexachloroethane	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	193-39-5	
Isophorone	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	78-59-1	
2-Methylnaphthalene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	698	1	11/03/16 15:19	11/10/16 21:36		
Naphthalene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	91-20-3	
2-Nitroaniline	ND	ug/kg	872	1	11/03/16 15:19	11/10/16 21:36	88-74-4	
3-Nitroaniline	ND	ug/kg	872	1	11/03/16 15:19	11/10/16 21:36	99-09-2	
4-Nitroaniline	ND	ug/kg	872	1	11/03/16 15:19	11/10/16 21:36	100-01-6	
Nitrobenzene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	98-95-3	
2-Nitrophenol	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	88-75-5	
4-Nitrophenol	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	86-30-6	
Pentachlorophenol	ND	ug/kg	872	1	11/03/16 15:19	11/10/16 21:36	87-86-5	
Phenanthrene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	85-01-8	
Phenol	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	108-95-2	
Pyrene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	120-82-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-27 **Lab ID: 30201248009** Collected: 10/28/16 09:41 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
2,4,5-Trichlorophenol	ND	ug/kg	872	1	11/03/16 15:19	11/10/16 21:36	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	349	1	11/03/16 15:19	11/10/16 21:36	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	76	%	33-104	1	11/03/16 15:19	11/10/16 21:36	4165-60-0	
2-Fluorobiphenyl (S)	73	%	38-105	1	11/03/16 15:19	11/10/16 21:36	321-60-8	
Terphenyl-d14 (S)	72	%	33-149	1	11/03/16 15:19	11/10/16 21:36	1718-51-0	
Phenol-d6 (S)	75	%	32-111	1	11/03/16 15:19	11/10/16 21:36	13127-88-3	
2-Fluorophenol (S)	79	%	10-123	1	11/03/16 15:19	11/10/16 21:36	367-12-4	
2,4,6-Tribromophenol (S)	68	%	10-140	1	11/03/16 15:19	11/10/16 21:36	118-79-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**6.3**	%	0.10	1		11/07/16 16:17		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196A Preparation Method: EPA 7196A							
Chromium, Hexavalent	ND	mg/kg	1.1	1	11/03/16 11:00	11/04/16 13:50	18540-29-9	
Trivalent Chromium Calculation	Analytical Method: Trivalent Chromium Calculation							
Chromium, Trivalent	**7.1**	mg/kg	1.0	1		11/08/16 15:21	16065-83-1	
9012B Cyanide, Total	Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	ND	mg/kg	0.64	1	11/07/16 20:30	11/07/16 22:09	57-12-5	

Sample: SC-28 **Lab ID: 30201248010** Collected: 10/28/16 09:43 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3546							
Aldrin	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:31	309-00-2	
alpha-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:31	319-84-6	
beta-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:31	319-85-7	
delta-BHC	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:31	319-86-8	
gamma-BHC (Lindane)	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:31	58-89-9	
alpha-Chlordane	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:31	5103-71-9	
gamma-Chlordane	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:31	5103-74-2	
4,4'-DDD	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:31	72-54-8	
4,4'-DDE	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:31	72-55-9	
4,4'-DDT	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:31	50-29-3	
Dieldrin	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:31	60-57-1	
Endosulfan I	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:31	959-98-8	
Endosulfan II	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:31	33213-65-9	
Endosulfan sulfate	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:31	1031-07-8	
Endrin	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:31	72-20-8	
Endrin aldehyde	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:31	7421-93-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-28 **Lab ID: 30201248010** Collected: 10/28/16 09:43 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3546							
Endrin ketone	ND	ug/kg	3.5	1	11/03/16 15:50	11/07/16 23:31	53494-70-5	
Heptachlor	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:31	76-44-8	
Heptachlor epoxide	ND	ug/kg	1.8	1	11/03/16 15:50	11/07/16 23:31	1024-57-3	
Methoxychlor	ND	ug/kg	17.6	1	11/03/16 15:50	11/07/16 23:31	72-43-5	
Toxaphene	ND	ug/kg	17.6	1	11/03/16 15:50	11/07/16 23:31	8001-35-2	
Surrogates								
Tetrachloro-m-xylene (S)	63	%	37-113	1	11/03/16 15:50	11/07/16 23:31	877-09-8	
Decachlorobiphenyl (S)	73	%	39-122	1	11/03/16 15:50	11/07/16 23:31	2051-24-3	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B							
Aluminum	**6020**	mg/kg	10.4	1	11/03/16 11:36	11/04/16 10:07	7429-90-5	
Antimony	ND	mg/kg	0.63	1	11/03/16 11:36	11/04/16 10:07	7440-36-0	
Arsenic	**3.2**	mg/kg	0.52	1	11/03/16 11:36	11/04/16 10:07	7440-38-2	
Barium	**29.4**	mg/kg	2.1	1	11/03/16 11:36	11/04/16 10:07	7440-39-3	
Beryllium	**0.32**	mg/kg	0.21	1	11/03/16 11:36	11/04/16 10:07	7440-41-7	
Boron	ND	mg/kg	5.2	1	11/03/16 11:36	11/04/16 10:07	7440-42-8	
Cadmium	ND	mg/kg	0.31	1	11/03/16 11:36	11/04/16 10:07	7440-43-9	
Calcium	**12900**	mg/kg	209	1	11/03/16 11:36	11/04/16 10:07	7440-70-2	
Chromium	**7.3**	mg/kg	0.52	1	11/03/16 11:36	11/04/16 11:35	7440-47-3	
Cobalt	**5.4**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 10:07	7440-48-4	
Copper	**15.2**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 10:07	7440-50-8	
Iron	**14300**	mg/kg	10.4	1	11/03/16 11:36	11/04/16 10:07	7439-89-6	
Lead	**5.5**	mg/kg	0.52	1	11/03/16 11:36	11/04/16 11:35	7439-92-1	
Magnesium	**4900**	mg/kg	52.1	1	11/03/16 11:36	11/04/16 10:07	7439-95-4	
Manganese	**301**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 10:07	7439-96-5	
Molybdenum	ND	mg/kg	2.1	1	11/03/16 11:36	11/04/16 10:07	7439-98-7	L1
Nickel	**11.3**	mg/kg	2.1	1	11/03/16 11:36	11/04/16 10:07	7440-02-0	
Potassium	**1010**	mg/kg	52.1	1	11/03/16 11:36	11/04/16 10:07	7440-09-7	
Selenium	ND	mg/kg	0.83	1	11/03/16 11:36	11/04/16 10:07	7782-49-2	
Silver	ND	mg/kg	0.63	1	11/03/16 11:36	11/04/16 10:07	7440-22-4	
Sodium	ND	mg/kg	521	1	11/03/16 11:36	11/04/16 10:07	7440-23-5	
Thallium	ND	mg/kg	2.1	1	11/03/16 11:36	11/04/16 10:07	7440-28-0	
Vanadium	**11.6**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 11:35	7440-62-2	
Zinc	**36.5**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 10:07	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B							
Mercury	ND	mg/kg	0.11	1	11/03/16 14:15	11/04/16 02:07	7439-97-6	
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	83-32-9	
Acenaphthylene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	208-96-8	
Anthracene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	120-12-7	
Benzo(a)anthracene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	56-55-3	
Benzo(a)pyrene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	205-99-2	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-28 **Lab ID: 30201248010** Collected: 10/28/16 09:43 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
Benzo(g,h,i)perylene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	207-08-9	
Benzyl alcohol	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	101-55-3	
Butylbenzylphthalate	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	59-50-7	
4-Chloroaniline	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	108-60-1	
2-Chloronaphthalene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	91-58-7	
2-Chlorophenol	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	7005-72-3	
Chrysene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	53-70-3	
Dibenzofuran	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	120-83-2	
Diethylphthalate	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	105-67-9	
Dimethylphthalate	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	131-11-3	
Di-n-butylphthalate	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	900	1	11/03/16 15:19	11/10/16 21:57	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	900	1	11/03/16 15:19	11/10/16 21:57	51-28-5	SS
2,4-Dinitrotoluene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	606-20-2	
Di-n-octylphthalate	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	117-81-7	
Fluoranthene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	206-44-0	
Fluorene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	87-68-3	
Hexachlorobenzene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	77-47-4	
Hexachloroethane	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	193-39-5	
Isophorone	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	78-59-1	
2-Methylnaphthalene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	720	1	11/03/16 15:19	11/10/16 21:57		
Naphthalene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	91-20-3	
2-Nitroaniline	ND	ug/kg	900	1	11/03/16 15:19	11/10/16 21:57	88-74-4	
3-Nitroaniline	ND	ug/kg	900	1	11/03/16 15:19	11/10/16 21:57	99-09-2	
4-Nitroaniline	ND	ug/kg	900	1	11/03/16 15:19	11/10/16 21:57	100-01-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: SC-28 **Lab ID: 30201248010** Collected: 10/28/16 09:43 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
Nitrobenzene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	98-95-3	
2-Nitrophenol	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	88-75-5	
4-Nitrophenol	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	86-30-6	
Pentachlorophenol	ND	ug/kg	900	1	11/03/16 15:19	11/10/16 21:57	87-86-5	
Phenanthrene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	85-01-8	
Phenol	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	108-95-2	
Pyrene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	900	1	11/03/16 15:19	11/10/16 21:57	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	360	1	11/03/16 15:19	11/10/16 21:57	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	78	%	33-104	1	11/03/16 15:19	11/10/16 21:57	4165-60-0	
2-Fluorobiphenyl (S)	76	%	38-105	1	11/03/16 15:19	11/10/16 21:57	321-60-8	
Terphenyl-d14 (S)	77	%	33-149	1	11/03/16 15:19	11/10/16 21:57	1718-51-0	
Phenol-d6 (S)	78	%	32-111	1	11/03/16 15:19	11/10/16 21:57	13127-88-3	
2-Fluorophenol (S)	82	%	10-123	1	11/03/16 15:19	11/10/16 21:57	367-12-4	
2,4,6-Tribromophenol (S)	70	%	10-140	1	11/03/16 15:19	11/10/16 21:57	118-79-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**7.8**	%	0.10	1		11/07/16 16:17		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196A Preparation Method: EPA 7196A							
Chromium, Hexavalent	ND	mg/kg	1.1	1	11/03/16 11:00	11/04/16 13:50	18540-29-9	
Trivalent Chromium Calculation	Analytical Method: Trivalent Chromium Calculation							
Chromium, Trivalent	**6.7**	mg/kg	1.0	1		11/08/16 15:21	16065-83-1	
9012B Cyanide, Total	Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	ND	mg/kg	0.65	1	11/07/16 20:30	11/07/16 22:10	57-12-5	

Sample: MULCH-01 **Lab ID: 30201248011** Collected: 10/28/16 09:05 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	75-34-3	1c

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-01 **Lab ID: 30201248011** Collected: 10/28/16 09:05 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1-Dichloroethene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	52.6	1	11/08/16 11:33	11/08/16 17:46	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	95-49-8	1c
2-Hexanone	ND	ug/kg	52.6	1	11/08/16 11:33	11/08/16 17:46	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	52.6	1	11/08/16 11:33	11/08/16 17:46	108-10-1	1c
Acetone	ND	ug/kg	52.6	1	11/08/16 11:33	11/08/16 17:46	67-64-1	1c
Benzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	71-43-2	1c
Bromobenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	108-86-1	1c
Bromochloromethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	74-97-5	1c
Bromodichloromethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	75-27-4	1c
Bromoform	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	75-25-2	1c
Bromomethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	74-83-9	1c
Carbon disulfide	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	56-23-5	1c
Chlorobenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	108-90-7	1c
Chloroethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	75-00-3	1c
Chloroform	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	67-66-3	1c
Chloromethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	74-87-3	1c
Dibromochloromethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	124-48-1	1c
Dibromomethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	75-71-8	1c
Ethylbenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	1634-04-4	1c
Methylene Chloride	**239**	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	75-09-2	1c
Naphthalene	**40.6**	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	91-20-3	1c,IS
Styrene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	100-42-5	1c
TOTAL BTEX	ND	ug/kg	158	1	11/08/16 11:33	11/08/16 17:46		
Tetrachloroethene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	127-18-4	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-01 **Lab ID: 30201248011** Collected: 10/28/16 09:05 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Toluene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	108-88-3	1c
Trichloroethene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	75-69-4	1c
Vinyl acetate	ND	ug/kg	263	1	11/08/16 11:33	11/08/16 17:46	108-05-4	1c
Vinyl chloride	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	75-01-4	1c
Xylene (Total)	ND	ug/kg	78.9	1	11/08/16 11:33	11/08/16 17:46	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	10061-01-5	1c
m&p-Xylene	ND	ug/kg	52.6	1	11/08/16 11:33	11/08/16 17:46	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	104-51-8	1c
n-Propylbenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	103-65-1	1c
o-Xylene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	26.3	1	11/08/16 11:33	11/08/16 17:46	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	115	%	68-135	1	11/08/16 11:33	11/08/16 17:46	2037-26-5	
4-Bromofluorobenzene (S)	130	%	65-146	1	11/08/16 11:33	11/08/16 17:46	460-00-4	IS
1,2-Dichloroethane-d4 (S)	106	%	69-137	1	11/08/16 11:33	11/08/16 17:46	17060-07-0	
Dibromofluoromethane (S)	105	%	70-130	1	11/08/16 11:33	11/08/16 17:46	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**37.9**	%	0.10	1		11/07/16 16:17		

Sample: MULCH-02 **Lab ID: 30201248012** Collected: 10/28/16 09:10 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	95-63-6	1c

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-02 **Lab ID: 30201248012** Collected: 10/28/16 09:10 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,2-Dibromo-3-chloropropane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	64.9	1	11/08/16 11:33	11/08/16 18:11	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	95-49-8	1c
2-Hexanone	ND	ug/kg	64.9	1	11/08/16 11:33	11/08/16 18:11	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	64.9	1	11/08/16 11:33	11/08/16 18:11	108-10-1	1c
Acetone	ND	ug/kg	64.9	1	11/08/16 11:33	11/08/16 18:11	67-64-1	1c
Benzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	71-43-2	1c
Bromobenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	108-86-1	1c
Bromochloromethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	74-97-5	1c
Bromodichloromethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	75-27-4	1c
Bromoform	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	75-25-2	1c
Bromomethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	74-83-9	1c
Carbon disulfide	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	56-23-5	1c
Chlorobenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	108-90-7	1c
Chloroethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	75-00-3	1c
Chloroform	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	67-66-3	1c
Chloromethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	74-87-3	1c
Dibromochloromethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	124-48-1	1c
Dibromomethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	75-71-8	1c
Ethylbenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	1634-04-4	1c
Methylene Chloride	**298**	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	75-09-2	1c
Naphthalene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	91-20-3	1c
Styrene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	100-42-5	1c
TOTAL BTEX	ND	ug/kg	195	1	11/08/16 11:33	11/08/16 18:11		
Tetrachloroethene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	127-18-4	1c
Toluene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	108-88-3	1c
Trichloroethene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	75-69-4	1c
Vinyl acetate	ND	ug/kg	325	1	11/08/16 11:33	11/08/16 18:11	108-05-4	1c
Vinyl chloride	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	75-01-4	1c
Xylene (Total)	ND	ug/kg	97.4	1	11/08/16 11:33	11/08/16 18:11	1330-20-7	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-02 **Lab ID: 30201248012** Collected: 10/28/16 09:10 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
cis-1,2-Dichloroethene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	10061-01-5	1c
m&p-Xylene	ND	ug/kg	64.9	1	11/08/16 11:33	11/08/16 18:11	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	104-51-8	1c
n-Propylbenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	103-65-1	1c
o-Xylene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	32.5	1	11/08/16 11:33	11/08/16 18:11	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	111	%	68-135	1	11/08/16 11:33	11/08/16 18:11	2037-26-5	
4-Bromofluorobenzene (S)	126	%	65-146	1	11/08/16 11:33	11/08/16 18:11	460-00-4	IS
1,2-Dichloroethane-d4 (S)	106	%	69-137	1	11/08/16 11:33	11/08/16 18:11	17060-07-0	
Dibromofluoromethane (S)	104	%	70-130	1	11/08/16 11:33	11/08/16 18:11	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**48.0**	%	0.10	1		11/07/16 16:17		

Sample: MULCH-03 **Lab ID: 30201248013** Collected: 10/28/16 09:15 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	541-73-1	1c

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-03 **Lab ID: 30201248013** Collected: 10/28/16 09:15 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,3-Dichloropropane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	48.1	1	11/08/16 11:33	11/08/16 18:37	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	95-49-8	1c
2-Hexanone	ND	ug/kg	48.1	1	11/08/16 11:33	11/08/16 18:37	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	48.1	1	11/08/16 11:33	11/08/16 18:37	108-10-1	1c
Acetone	ND	ug/kg	48.1	1	11/08/16 11:33	11/08/16 18:37	67-64-1	1c
Benzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	71-43-2	1c
Bromobenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	108-86-1	1c
Bromochloromethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	74-97-5	1c
Bromodichloromethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	75-27-4	1c
Bromoform	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	75-25-2	1c
Bromomethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	74-83-9	1c
Carbon disulfide	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	56-23-5	1c
Chlorobenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	108-90-7	1c
Chloroethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	75-00-3	1c
Chloroform	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	67-66-3	1c
Chloromethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	74-87-3	1c
Dibromochloromethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	124-48-1	1c
Dibromomethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	75-71-8	1c
Ethylbenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	1634-04-4	1c
Methylene Chloride	**173**	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	75-09-2	1c
Naphthalene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	91-20-3	1c
Styrene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	100-42-5	1c
TOTAL BTEX	ND	ug/kg	144	1	11/08/16 11:33	11/08/16 18:37		
Tetrachloroethene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	127-18-4	1c
Toluene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	108-88-3	1c
Trichloroethene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	75-69-4	1c
Vinyl acetate	ND	ug/kg	240	1	11/08/16 11:33	11/08/16 18:37	108-05-4	1c
Vinyl chloride	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	75-01-4	1c
Xylene (Total)	ND	ug/kg	72.1	1	11/08/16 11:33	11/08/16 18:37	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	10061-01-5	1c
m&p-Xylene	ND	ug/kg	48.1	1	11/08/16 11:33	11/08/16 18:37	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	104-51-8	1c
n-Propylbenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	103-65-1	1c
o-Xylene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	95-47-6	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-03 **Lab ID: 30201248013** Collected: 10/28/16 09:15 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
p-Isopropyltoluene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	24.0	1	11/08/16 11:33	11/08/16 18:37	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	103	%	68-135	1	11/08/16 11:33	11/08/16 18:37	2037-26-5	
4-Bromofluorobenzene (S)	105	%	65-146	1	11/08/16 11:33	11/08/16 18:37	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	69-137	1	11/08/16 11:33	11/08/16 18:37	17060-07-0	
Dibromofluoromethane (S)	99	%	70-130	1	11/08/16 11:33	11/08/16 18:37	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**41.9**	%	0.10	1		11/07/16 16:17		

Sample: MULCH-04 **Lab ID: 30201248014** Collected: 10/28/16 09:20 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	51.8	1	11/08/16 11:33	11/08/16 19:03	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	95-49-8	1c
2-Hexanone	ND	ug/kg	51.8	1	11/08/16 11:33	11/08/16 19:03	591-78-6	1c

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-04 **Lab ID: 30201248014** Collected: 10/28/16 09:20 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
4-Chlorotoluene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	51.8	1	11/08/16 11:33	11/08/16 19:03	108-10-1	1c
Acetone	ND	ug/kg	51.8	1	11/08/16 11:33	11/08/16 19:03	67-64-1	1c
Benzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	71-43-2	1c
Bromobenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	108-86-1	1c
Bromochloromethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	74-97-5	1c
Bromodichloromethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	75-27-4	1c
Bromoform	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	75-25-2	1c
Bromomethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	74-83-9	1c
Carbon disulfide	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	56-23-5	1c
Chlorobenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	108-90-7	1c
Chloroethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	75-00-3	1c
Chloroform	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	67-66-3	1c
Chloromethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	74-87-3	1c
Dibromochloromethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	124-48-1	1c
Dibromomethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	75-71-8	1c
Ethylbenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	1634-04-4	1c
Methylene Chloride	**323**	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	75-09-2	1c
Naphthalene	**51.6**	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	91-20-3	1c,IS
Styrene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	100-42-5	1c
TOTAL BTEX	ND	ug/kg	155	1	11/08/16 11:33	11/08/16 19:03		
Tetrachloroethene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	127-18-4	1c
Toluene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	108-88-3	1c
Trichloroethene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	75-69-4	1c
Vinyl acetate	ND	ug/kg	259	1	11/08/16 11:33	11/08/16 19:03	108-05-4	1c
Vinyl chloride	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	75-01-4	1c
Xylene (Total)	ND	ug/kg	77.7	1	11/08/16 11:33	11/08/16 19:03	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	10061-01-5	1c
m&p-Xylene	ND	ug/kg	51.8	1	11/08/16 11:33	11/08/16 19:03	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	104-51-8	1c
n-Propylbenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	103-65-1	1c
o-Xylene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	25.9	1	11/08/16 11:33	11/08/16 19:03	10061-02-6	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-04 **Lab ID: 30201248014** Collected: 10/28/16 09:20 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Surrogates								
Toluene-d8 (S)	118	%	68-135	1	11/08/16 11:33	11/08/16 19:03	2037-26-5	
4-Bromofluorobenzene (S)	130	%	65-146	1	11/08/16 11:33	11/08/16 19:03	460-00-4	IS
1,2-Dichloroethane-d4 (S)	107	%	69-137	1	11/08/16 11:33	11/08/16 19:03	17060-07-0	
Dibromofluoromethane (S)	104	%	70-130	1	11/08/16 11:33	11/08/16 19:03	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**28.0**	%	0.10	1		11/07/16 16:17		

Sample: MULCH-05 **Lab ID: 30201248015** Collected: 10/28/16 09:25 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	53.7	1	11/08/16 11:33	11/08/16 19:29	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	95-49-8	1c
2-Hexanone	ND	ug/kg	53.7	1	11/08/16 11:33	11/08/16 19:29	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.7	1	11/08/16 11:33	11/08/16 19:29	108-10-1	1c
Acetone	ND	ug/kg	53.7	1	11/08/16 11:33	11/08/16 19:29	67-64-1	1c
Benzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	71-43-2	1c
Bromobenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	108-86-1	1c

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-05 **Lab ID: 30201248015** Collected: 10/28/16 09:25 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Bromochloromethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	74-97-5	1c
Bromodichloromethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	75-27-4	1c
Bromoform	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	75-25-2	1c
Bromomethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	74-83-9	1c
Carbon disulfide	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	56-23-5	1c
Chlorobenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	108-90-7	1c
Chloroethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	75-00-3	1c
Chloroform	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	67-66-3	1c
Chloromethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	74-87-3	1c
Dibromochloromethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	124-48-1	1c
Dibromomethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	75-71-8	1c
Ethylbenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	1634-04-4	1c
Methylene Chloride	**314**	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	75-09-2	1c
Naphthalene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	91-20-3	1c
Styrene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	100-42-5	1c
TOTAL BTEX	ND	ug/kg	161	1	11/08/16 11:33	11/08/16 19:29		
Tetrachloroethene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	127-18-4	1c
Toluene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	108-88-3	1c
Trichloroethene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	75-69-4	1c
Vinyl acetate	ND	ug/kg	268	1	11/08/16 11:33	11/08/16 19:29	108-05-4	1c
Vinyl chloride	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	75-01-4	1c
Xylene (Total)	ND	ug/kg	80.5	1	11/08/16 11:33	11/08/16 19:29	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	10061-01-5	1c
m&p-Xylene	ND	ug/kg	53.7	1	11/08/16 11:33	11/08/16 19:29	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	104-51-8	1c
n-Propylbenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	103-65-1	1c
o-Xylene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	26.8	1	11/08/16 11:33	11/08/16 19:29	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	116	%	68-135	1	11/08/16 11:33	11/08/16 19:29	2037-26-5	
4-Bromofluorobenzene (S)	132	%	65-146	1	11/08/16 11:33	11/08/16 19:29	460-00-4	IS
1,2-Dichloroethane-d4 (S)	107	%	69-137	1	11/08/16 11:33	11/08/16 19:29	17060-07-0	
Dibromofluoromethane (S)	101	%	70-130	1	11/08/16 11:33	11/08/16 19:29	1868-53-7	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-05 **Lab ID: 30201248015** Collected: 10/28/16 09:25 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**40.7**	%	0.10	1		11/07/16 16:16		

Sample: MULCH-06 **Lab ID: 30201248016** Collected: 10/28/16 09:30 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	75.7	1	11/08/16 11:33	11/08/16 19:54	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	95-49-8	1c
2-Hexanone	ND	ug/kg	75.7	1	11/08/16 11:33	11/08/16 19:54	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	75.7	1	11/08/16 11:33	11/08/16 19:54	108-10-1	1c
Acetone	ND	ug/kg	75.7	1	11/08/16 11:33	11/08/16 19:54	67-64-1	1c
Benzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	71-43-2	1c
Bromobenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	108-86-1	1c
Bromochloromethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	74-97-5	1c
Bromodichloromethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	75-27-4	1c
Bromoform	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	75-25-2	1c
Bromomethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	74-83-9	1c
Carbon disulfide	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	56-23-5	1c
Chlorobenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	108-90-7	1c

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-06 **Lab ID: 30201248016** Collected: 10/28/16 09:30 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Chloroethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	75-00-3	1c
Chloroform	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	67-66-3	1c
Chloromethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	74-87-3	1c
Dibromochloromethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	124-48-1	1c
Dibromomethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	75-71-8	1c
Ethylbenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	1634-04-4	1c
Methylene Chloride	**324**	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	75-09-2	1c
Naphthalene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	91-20-3	1c
Styrene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	100-42-5	1c
TOTAL BTEX	ND	ug/kg	227	1	11/08/16 11:33	11/08/16 19:54		
Tetrachloroethene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	127-18-4	1c
Toluene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	108-88-3	1c
Trichloroethene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	75-69-4	1c
Vinyl acetate	ND	ug/kg	379	1	11/08/16 11:33	11/08/16 19:54	108-05-4	1c
Vinyl chloride	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	75-01-4	1c
Xylene (Total)	ND	ug/kg	114	1	11/08/16 11:33	11/08/16 19:54	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	10061-01-5	1c
m&p-Xylene	ND	ug/kg	75.7	1	11/08/16 11:33	11/08/16 19:54	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	104-51-8	1c
n-Propylbenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	103-65-1	1c
o-Xylene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	37.9	1	11/08/16 11:33	11/08/16 19:54	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	112	%	68-135	1	11/08/16 11:33	11/08/16 19:54	2037-26-5	
4-Bromofluorobenzene (S)	128	%	65-146	1	11/08/16 11:33	11/08/16 19:54	460-00-4	IS
1,2-Dichloroethane-d4 (S)	103	%	69-137	1	11/08/16 11:33	11/08/16 19:54	17060-07-0	
Dibromofluoromethane (S)	102	%	70-130	1	11/08/16 11:33	11/08/16 19:54	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**58.7**	%	0.10	1		11/07/16 16:16		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-C01 **Lab ID: 30201248017** Collected: 10/28/16 09:15 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3546							
Aldrin	**81.7**	ug/kg	44.7	5	11/03/16 15:50	11/07/16 23:59	309-00-2	
alpha-BHC	ND	ug/kg	44.7	5	11/03/16 15:50	11/07/16 23:59	319-84-6	
beta-BHC	ND	ug/kg	44.7	5	11/03/16 15:50	11/07/16 23:59	319-85-7	
delta-BHC	ND	ug/kg	44.7	5	11/03/16 15:50	11/07/16 23:59	319-86-8	
gamma-BHC (Lindane)	ND	ug/kg	44.7	5	11/03/16 15:50	11/07/16 23:59	58-89-9	
alpha-Chlordane	ND	ug/kg	44.7	5	11/03/16 15:50	11/07/16 23:59	5103-71-9	
gamma-Chlordane	ND	ug/kg	44.7	5	11/03/16 15:50	11/07/16 23:59	5103-74-2	
4,4'-DDD	ND	ug/kg	89.3	5	11/03/16 15:50	11/07/16 23:59	72-54-8	
4,4'-DDE	ND	ug/kg	89.3	5	11/03/16 15:50	11/07/16 23:59	72-55-9	
4,4'-DDT	ND	ug/kg	89.3	5	11/03/16 15:50	11/07/16 23:59	50-29-3	
Dieldrin	ND	ug/kg	89.3	5	11/03/16 15:50	11/07/16 23:59	60-57-1	
Endosulfan I	ND	ug/kg	44.7	5	11/03/16 15:50	11/07/16 23:59	959-98-8	
Endosulfan II	ND	ug/kg	89.3	5	11/03/16 15:50	11/07/16 23:59	33213-65-9	
Endosulfan sulfate	ND	ug/kg	89.3	5	11/03/16 15:50	11/07/16 23:59	1031-07-8	
Endrin	ND	ug/kg	89.3	5	11/03/16 15:50	11/07/16 23:59	72-20-8	
Endrin aldehyde	ND	ug/kg	89.3	5	11/03/16 15:50	11/07/16 23:59	7421-93-4	
Endrin ketone	ND	ug/kg	89.3	5	11/03/16 15:50	11/07/16 23:59	53494-70-5	
Heptachlor	ND	ug/kg	44.7	5	11/03/16 15:50	11/07/16 23:59	76-44-8	
Heptachlor epoxide	ND	ug/kg	44.7	5	11/03/16 15:50	11/07/16 23:59	1024-57-3	
Methoxychlor	ND	ug/kg	447	5	11/03/16 15:50	11/07/16 23:59	72-43-5	
Toxaphene	ND	ug/kg	447	5	11/03/16 15:50	11/07/16 23:59	8001-35-2	
Surrogates								
Tetrachloro-m-xylene (S)	55	%	37-113	5	11/03/16 15:50	11/07/16 23:59	877-09-8	
Decachlorobiphenyl (S)	85	%	39-122	5	11/03/16 15:50	11/07/16 23:59	2051-24-3	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B							
Aluminum	**3180**	mg/kg	17.3	1	11/03/16 11:36	11/04/16 10:09	7429-90-5	
Antimony	ND	mg/kg	1.0	1	11/03/16 11:36	11/04/16 10:09	7440-36-0	
Arsenic	**3.6**	mg/kg	0.86	1	11/03/16 11:36	11/04/16 10:09	7440-38-2	
Barium	**90.3**	mg/kg	3.5	1	11/03/16 11:36	11/04/16 10:09	7440-39-3	
Beryllium	ND	mg/kg	0.35	1	11/03/16 11:36	11/04/16 10:09	7440-41-7	
Boron	**24.8**	mg/kg	8.6	1	11/03/16 11:36	11/04/16 10:09	7440-42-8	
Cadmium	**0.57**	mg/kg	0.52	1	11/03/16 11:36	11/04/16 10:09	7440-43-9	
Calcium	**24200**	mg/kg	346	1	11/03/16 11:36	11/04/16 10:09	7440-70-2	
Chromium	**6.7**	mg/kg	0.86	1	11/03/16 11:36	11/04/16 11:37	7440-47-3	
Cobalt	**2.5**	mg/kg	1.7	1	11/03/16 11:36	11/04/16 10:09	7440-48-4	
Copper	**26.0**	mg/kg	1.7	1	11/03/16 11:36	11/04/16 10:09	7440-50-8	
Iron	**6240**	mg/kg	17.3	1	11/03/16 11:36	11/04/16 10:09	7439-89-6	
Lead	**20.7**	mg/kg	0.86	1	11/03/16 11:36	11/04/16 11:37	7439-92-1	
Magnesium	**3580**	mg/kg	86.4	1	11/03/16 11:36	11/04/16 10:09	7439-95-4	
Manganese	**526**	mg/kg	1.7	1	11/03/16 11:36	11/04/16 10:09	7439-96-5	
Molybdenum	ND	mg/kg	3.5	1	11/03/16 11:36	11/04/16 10:09	7439-98-7	L1
Nickel	**6.6**	mg/kg	3.5	1	11/03/16 11:36	11/04/16 10:09	7440-02-0	
Potassium	**5450**	mg/kg	86.4	1	11/03/16 11:36	11/04/16 10:09	7440-09-7	
Selenium	ND	mg/kg	1.4	1	11/03/16 11:36	11/04/16 10:09	7782-49-2	
Silver	ND	mg/kg	1.0	1	11/03/16 11:36	11/04/16 10:09	7440-22-4	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-C01 **Lab ID: 30201248017** Collected: 10/28/16 09:15 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B							
Sodium	ND	mg/kg	864	1	11/03/16 11:36	11/04/16 10:09	7440-23-5	
Thallium	ND	mg/kg	3.5	1	11/03/16 11:36	11/04/16 10:09	7440-28-0	
Vanadium	**7.5**	mg/kg	1.7	1	11/03/16 11:36	11/04/16 11:37	7440-62-2	
Zinc	**84.9**	mg/kg	1.7	1	11/03/16 11:36	11/04/16 10:09	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B							
Mercury	ND	mg/kg	0.17	1	11/03/16 14:15	11/04/16 02:08	7439-97-6	
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	83-32-9	
Acenaphthylene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	208-96-8	
Anthracene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	120-12-7	
Benzo(a)anthracene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	56-55-3	
Benzo(a)pyrene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	207-08-9	
Benzyl alcohol	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	101-55-3	
Butylbenzylphthalate	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	59-50-7	
4-Chloroaniline	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	108-60-1	
2-Chloronaphthalene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	91-58-7	
2-Chlorophenol	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	7005-72-3	
Chrysene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	53-70-3	
Dibenzofuran	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	120-83-2	
Diethylphthalate	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	105-67-9	
Dimethylphthalate	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	131-11-3	
Di-n-butylphthalate	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	43400	10	11/03/16 15:19	11/10/16 22:18	534-52-1	SS
2,4-Dinitrophenol	ND	ug/kg	43400	10	11/03/16 15:19	11/10/16 22:18	51-28-5	SS
2,4-Dinitrotoluene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	606-20-2	
Di-n-octylphthalate	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	117-84-0	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-C01 **Lab ID: 30201248017** Collected: 10/28/16 09:15 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
bis(2-Ethylhexyl)phthalate	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	117-81-7	
Fluoranthene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	206-44-0	
Fluorene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	87-68-3	
Hexachlorobenzene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	77-47-4	
Hexachloroethane	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	193-39-5	
Isophorone	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	78-59-1	
2-Methylnaphthalene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	34700	10	11/03/16 15:19	11/10/16 22:18		
Naphthalene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	91-20-3	
2-Nitroaniline	ND	ug/kg	43400	10	11/03/16 15:19	11/10/16 22:18	88-74-4	
3-Nitroaniline	ND	ug/kg	43400	10	11/03/16 15:19	11/10/16 22:18	99-09-2	
4-Nitroaniline	ND	ug/kg	43400	10	11/03/16 15:19	11/10/16 22:18	100-01-6	
Nitrobenzene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	98-95-3	
2-Nitrophenol	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	88-75-5	
4-Nitrophenol	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	86-30-6	
Pentachlorophenol	ND	ug/kg	43400	10	11/03/16 15:19	11/10/16 22:18	87-86-5	
Phenanthrene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	85-01-8	
Phenol	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	108-95-2	
Pyrene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	43400	10	11/03/16 15:19	11/10/16 22:18	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	17300	10	11/03/16 15:19	11/10/16 22:18	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	49	%	33-104	10	11/03/16 15:19	11/10/16 22:18	4165-60-0	
2-Fluorobiphenyl (S)	57	%	38-105	10	11/03/16 15:19	11/10/16 22:18	321-60-8	
Terphenyl-d14 (S)	56	%	33-149	10	11/03/16 15:19	11/10/16 22:18	1718-51-0	
Phenol-d6 (S)	58	%	32-111	10	11/03/16 15:19	11/10/16 22:18	13127-88-3	
2-Fluorophenol (S)	58	%	10-123	10	11/03/16 15:19	11/10/16 22:18	367-12-4	
2,4,6-Tribromophenol (S)	50	%	10-140	10	11/03/16 15:19	11/10/16 22:18	118-79-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**44.4**	%	0.10	1		11/07/16 16:16		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196A Preparation Method: EPA 7196A							
Chromium, Hexavalent	ND	mg/kg	36.0	20	11/03/16 11:00	11/04/16 13:50	18540-29-9	
Trivalent Chromium Calculation	Analytical Method: Trivalent Chromium Calculation							
Chromium, Trivalent	**3.7**	mg/kg	1.0	1		11/08/16 15:21	16065-83-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-C01 **Lab ID: 30201248017** Collected: 10/28/16 09:15 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9012B Cyanide, Total	Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	ND	mg/kg	1.1	1	11/07/16 20:30	11/07/16 22:11	57-12-5	

Sample: MULCH-C02 **Lab ID: 30201248018** Collected: 10/28/16 09:30 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3546							
Aldrin	ND	ug/kg	47.1	5	11/03/16 15:50	11/08/16 00:26	309-00-2	
alpha-BHC	ND	ug/kg	47.1	5	11/03/16 15:50	11/08/16 00:26	319-84-6	
beta-BHC	ND	ug/kg	47.1	5	11/03/16 15:50	11/08/16 00:26	319-85-7	
delta-BHC	ND	ug/kg	47.1	5	11/03/16 15:50	11/08/16 00:26	319-86-8	
gamma-BHC (Lindane)	ND	ug/kg	47.1	5	11/03/16 15:50	11/08/16 00:26	58-89-9	
alpha-Chlordane	ND	ug/kg	47.1	5	11/03/16 15:50	11/08/16 00:26	5103-71-9	
gamma-Chlordane	ND	ug/kg	47.1	5	11/03/16 15:50	11/08/16 00:26	5103-74-2	
4,4'-DDD	ND	ug/kg	94.1	5	11/03/16 15:50	11/08/16 00:26	72-54-8	
4,4'-DDE	ND	ug/kg	94.1	5	11/03/16 15:50	11/08/16 00:26	72-55-9	
4,4'-DDT	ND	ug/kg	94.1	5	11/03/16 15:50	11/08/16 00:26	50-29-3	
Dieldrin	ND	ug/kg	94.1	5	11/03/16 15:50	11/08/16 00:26	60-57-1	
Endosulfan I	ND	ug/kg	47.1	5	11/03/16 15:50	11/08/16 00:26	959-98-8	
Endosulfan II	ND	ug/kg	94.1	5	11/03/16 15:50	11/08/16 00:26	33213-65-9	
Endosulfan sulfate	ND	ug/kg	94.1	5	11/03/16 15:50	11/08/16 00:26	1031-07-8	
Endrin	ND	ug/kg	94.1	5	11/03/16 15:50	11/08/16 00:26	72-20-8	
Endrin aldehyde	ND	ug/kg	94.1	5	11/03/16 15:50	11/08/16 00:26	7421-93-4	
Endrin ketone	ND	ug/kg	94.1	5	11/03/16 15:50	11/08/16 00:26	53494-70-5	
Heptachlor	ND	ug/kg	47.1	5	11/03/16 15:50	11/08/16 00:26	76-44-8	
Heptachlor epoxide	ND	ug/kg	47.1	5	11/03/16 15:50	11/08/16 00:26	1024-57-3	
Methoxychlor	ND	ug/kg	471	5	11/03/16 15:50	11/08/16 00:26	72-43-5	
Toxaphene	ND	ug/kg	471	5	11/03/16 15:50	11/08/16 00:26	8001-35-2	
Surrogates								
Tetrachloro-m-xylene (S)	59	%	37-113	5	11/03/16 15:50	11/08/16 00:26	877-09-8	
Decachlorobiphenyl (S)	67	%	39-122	5	11/03/16 15:50	11/08/16 00:26	2051-24-3	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B							
Aluminum	**3390**	mg/kg	20.3	1	11/03/16 11:36	11/04/16 10:12	7429-90-5	
Antimony	ND	mg/kg	1.2	1	11/03/16 11:36	11/04/16 10:12	7440-36-0	
Arsenic	**4.0**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 10:12	7440-38-2	
Barium	**92.1**	mg/kg	4.1	1	11/03/16 11:36	11/04/16 10:12	7440-39-3	
Beryllium	ND	mg/kg	0.41	1	11/03/16 11:36	11/04/16 10:12	7440-41-7	
Boron	**30.4**	mg/kg	10.1	1	11/03/16 11:36	11/04/16 10:12	7440-42-8	
Cadmium	**0.70**	mg/kg	0.61	1	11/03/16 11:36	11/04/16 10:12	7440-43-9	
Calcium	**27100**	mg/kg	406	1	11/03/16 11:36	11/04/16 10:12	7440-70-2	
Chromium	**8.0**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 11:40	7440-47-3	
Cobalt	**2.8**	mg/kg	2.0	1	11/03/16 11:36	11/04/16 10:12	7440-48-4	
Copper	**30.3**	mg/kg	2.0	1	11/03/16 11:36	11/04/16 10:12	7440-50-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-C02 **Lab ID: 30201248018** Collected: 10/28/16 09:30 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B							
Iron	**6820**	mg/kg	20.3	1	11/03/16 11:36	11/04/16 10:12	7439-89-6	
Lead	**25.8**	mg/kg	1.0	1	11/03/16 11:36	11/04/16 11:40	7439-92-1	
Magnesium	**4110**	mg/kg	101	1	11/03/16 11:36	11/04/16 10:12	7439-95-4	
Manganese	**598**	mg/kg	2.0	1	11/03/16 11:36	11/04/16 10:12	7439-96-5	
Molybdenum	ND	mg/kg	4.1	1	11/03/16 11:36	11/04/16 10:12	7439-98-7	L1
Nickel	**7.2**	mg/kg	4.1	1	11/03/16 11:36	11/04/16 10:12	7440-02-0	
Potassium	**7030**	mg/kg	101	1	11/03/16 11:36	11/04/16 10:12	7440-09-7	
Selenium	ND	mg/kg	1.6	1	11/03/16 11:36	11/04/16 10:12	7782-49-2	
Silver	ND	mg/kg	1.2	1	11/03/16 11:36	11/04/16 10:12	7440-22-4	
Sodium	ND	mg/kg	1010	1	11/03/16 11:36	11/04/16 10:12	7440-23-5	
Thallium	ND	mg/kg	4.1	1	11/03/16 11:36	11/04/16 10:12	7440-28-0	
Vanadium	**7.5**	mg/kg	2.0	1	11/03/16 11:36	11/04/16 11:40	7440-62-2	
Zinc	**131**	mg/kg	2.0	1	11/03/16 11:36	11/04/16 10:12	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B							
Mercury	ND	mg/kg	0.20	1	11/03/16 14:15	11/04/16 02:10	7439-97-6	
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	83-32-9	
Acenaphthylene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	208-96-8	
Anthracene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	120-12-7	
Benzo(a)anthracene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	56-55-3	
Benzo(a)pyrene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	207-08-9	
Benzyl alcohol	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	101-55-3	
Butylbenzylphthalate	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	59-50-7	
4-Chloroaniline	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	108-60-1	
2-Chloronaphthalene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	91-58-7	
2-Chlorophenol	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	7005-72-3	
Chrysene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	53-70-3	
Dibenzofuran	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	120-83-2	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-C02 **Lab ID: 30201248018** Collected: 10/28/16 09:30 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546							
Diethylphthalate	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	105-67-9	
Dimethylphthalate	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	131-11-3	
Di-n-butylphthalate	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	49000	10	11/03/16 15:19	11/10/16 22:39	534-52-1	SS
2,4-Dinitrophenol	ND	ug/kg	49000	10	11/03/16 15:19	11/10/16 22:39	51-28-5	SS
2,4-Dinitrotoluene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	606-20-2	
Di-n-octylphthalate	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	117-81-7	
Fluoranthene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	206-44-0	
Fluorene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	87-68-3	
Hexachlorobenzene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	77-47-4	
Hexachloroethane	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	193-39-5	
Isophorone	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	78-59-1	
2-Methylnaphthalene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	39200	10	11/03/16 15:19	11/10/16 22:39		
Naphthalene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	91-20-3	
2-Nitroaniline	ND	ug/kg	49000	10	11/03/16 15:19	11/10/16 22:39	88-74-4	
3-Nitroaniline	ND	ug/kg	49000	10	11/03/16 15:19	11/10/16 22:39	99-09-2	
4-Nitroaniline	ND	ug/kg	49000	10	11/03/16 15:19	11/10/16 22:39	100-01-6	
Nitrobenzene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	98-95-3	
2-Nitrophenol	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	88-75-5	
4-Nitrophenol	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	86-30-6	
Pentachlorophenol	ND	ug/kg	49000	10	11/03/16 15:19	11/10/16 22:39	87-86-5	
Phenanthrene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	85-01-8	
Phenol	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	108-95-2	
Pyrene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	49000	10	11/03/16 15:19	11/10/16 22:39	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	19600	10	11/03/16 15:19	11/10/16 22:39	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	62	%	33-104	10	11/03/16 15:19	11/10/16 22:39	4165-60-0	
2-Fluorobiphenyl (S)	61	%	38-105	10	11/03/16 15:19	11/10/16 22:39	321-60-8	
Terphenyl-d14 (S)	61	%	33-149	10	11/03/16 15:19	11/10/16 22:39	1718-51-0	
Phenol-d6 (S)	62	%	32-111	10	11/03/16 15:19	11/10/16 22:39	13127-88-3	
2-Fluorophenol (S)	64	%	10-123	10	11/03/16 15:19	11/10/16 22:39	367-12-4	
2,4,6-Tribromophenol (S)	55	%	10-140	10	11/03/16 15:19	11/10/16 22:39	118-79-6	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: MULCH-C02 **Lab ID: 30201248018** Collected: 10/28/16 09:30 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**50.7**	%	0.10	1		11/07/16 16:13		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196A Preparation Method: EPA 7196A							
Chromium, Hexavalent	ND	mg/kg	40.3	20	11/03/16 11:00	11/04/16 13:50	18540-29-9	
Trivalent Chromium Calculation	Analytical Method: Trivalent Chromium Calculation							
Chromium, Trivalent	**4.0**	mg/kg	1.0	1		11/08/16 15:21	16065-83-1	
9012B Cyanide, Total	Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	ND	mg/kg	1.2	1	11/07/16 20:30	11/07/16 22:12	57-12-5	

Sample: S-58 **Lab ID: 30201248019** Collected: 10/28/16 09:35 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	11.7	1	11/08/16 11:33	11/08/16 20:20	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	95-49-8	1c
2-Hexanone	ND	ug/kg	11.7	1	11/08/16 11:33	11/08/16 20:20	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11.7	1	11/08/16 11:33	11/08/16 20:20	108-10-1	1c
Acetone	ND	ug/kg	11.7	1	11/08/16 11:33	11/08/16 20:20	67-64-1	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-58 **Lab ID: 30201248019** Collected: 10/28/16 09:35 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Benzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	71-43-2	1c
Bromobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	108-86-1	1c
Bromochloromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	74-97-5	1c
Bromodichloromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	75-27-4	1c
Bromoform	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	75-25-2	1c
Bromomethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	74-83-9	1c
Carbon disulfide	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	56-23-5	1c
Chlorobenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	108-90-7	1c
Chloroethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	75-00-3	1c
Chloroform	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	67-66-3	1c
Chloromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	74-87-3	1c
Dibromochloromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	124-48-1	1c
Dibromomethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	75-71-8	1c
Ethylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	1634-04-4	1c
Methylene Chloride	**30.1**	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	75-09-2	1c
Naphthalene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	91-20-3	1c
Styrene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	100-42-5	1c
TOTAL BTEX	ND	ug/kg	35.1	1	11/08/16 11:33	11/08/16 20:20		
Tetrachloroethene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	127-18-4	1c
Toluene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	108-88-3	1c
Trichloroethene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	75-69-4	1c
Vinyl acetate	ND	ug/kg	58.6	1	11/08/16 11:33	11/08/16 20:20	108-05-4	1c
Vinyl chloride	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	75-01-4	1c
Xylene (Total)	ND	ug/kg	17.6	1	11/08/16 11:33	11/08/16 20:20	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	10061-01-5	1c
m&p-Xylene	ND	ug/kg	11.7	1	11/08/16 11:33	11/08/16 20:20	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	104-51-8	1c
n-Propylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	103-65-1	1c
o-Xylene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1	11/08/16 11:33	11/08/16 20:20	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	101	%	68-135	1	11/08/16 11:33	11/08/16 20:20	2037-26-5	
4-Bromofluorobenzene (S)	101	%	65-146	1	11/08/16 11:33	11/08/16 20:20	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	69-137	1	11/08/16 11:33	11/08/16 20:20	17060-07-0	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-58 **Lab ID: 30201248019** Collected: 10/28/16 09:35 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Surrogates								
Dibromofluoromethane (S)	102	%	70-130	1	11/08/16 11:33	11/08/16 20:20	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**13.9**	%	0.10	1		11/07/16 16:42		

Sample: S-59 **Lab ID: 30201248020** Collected: 10/28/16 09:36 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	630-20-6	1c
1,1,1-Trichloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	71-55-6	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	79-34-5	1c
1,1,2-Trichloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	79-00-5	1c
1,1-Dichloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	75-34-3	1c
1,1-Dichloroethene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	75-35-4	1c
1,1-Dichloropropene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	563-58-6	1c
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	87-61-6	1c
1,2,3-Trichloropropane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	96-18-4	1c
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	120-82-1	1c
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	95-63-6	1c
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	96-12-8	1c
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	106-93-4	1c
1,2-Dichlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	95-50-1	1c
1,2-Dichloropropane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	78-87-5	1c
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	108-67-8	1c
1,3-Dichlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	541-73-1	1c
1,3-Dichloropropane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	142-28-9	1c
1,4-Dichlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	106-46-7	1c
2,2-Dichloropropane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	594-20-7	1c
2-Butanone (MEK)	ND	ug/kg	11.1	1	11/08/16 11:33	11/08/16 20:46	78-93-3	1c
2-Chlorotoluene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	95-49-8	1c
2-Hexanone	ND	ug/kg	11.1	1	11/08/16 11:33	11/08/16 20:46	591-78-6	1c
4-Chlorotoluene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	106-43-4	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11.1	1	11/08/16 11:33	11/08/16 20:46	108-10-1	1c
Acetone	**36.1**	ug/kg	11.1	1	11/08/16 11:33	11/08/16 20:46	67-64-1	1c
Benzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	71-43-2	1c
Bromobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	108-86-1	1c
Bromochloromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	74-97-5	1c
Bromodichloromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	75-27-4	1c
Bromoform	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	75-25-2	1c

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 16110028
Pace Project No.: 30201248

Sample: S-59 **Lab ID: 30201248020** Collected: 10/28/16 09:36 Received: 11/02/16 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Not collected as per 5035 guidance.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Bromomethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	74-83-9	1c
Carbon disulfide	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	75-15-0	1c
Carbon tetrachloride	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	56-23-5	1c
Chlorobenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	108-90-7	1c
Chloroethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	75-00-3	1c
Chloroform	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	67-66-3	1c
Chloromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	74-87-3	1c
Dibromochloromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	124-48-1	1c
Dibromomethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	74-95-3	1c
Dichlorodifluoromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	75-71-8	1c
Ethylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	100-41-4	1c
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	87-68-3	1c
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	98-82-8	1c
Methyl-tert-butyl ether	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	1634-04-4	1c
Methylene Chloride	**28.5**	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	75-09-2	1c
Naphthalene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	91-20-3	1c
Styrene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	100-42-5	1c
TOTAL BTEX	ND	ug/kg	33.4	1	11/08/16 11:33	11/08/16 20:46		
Tetrachloroethene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	127-18-4	1c
Toluene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	108-88-3	1c
Trichloroethene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	79-01-6	1c
Trichlorofluoromethane	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	75-69-4	1c
Vinyl acetate	ND	ug/kg	55.6	1	11/08/16 11:33	11/08/16 20:46	108-05-4	1c
Vinyl chloride	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	75-01-4	1c
Xylene (Total)	ND	ug/kg	16.7	1	11/08/16 11:33	11/08/16 20:46	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	156-59-2	1c
cis-1,3-Dichloropropene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	10061-01-5	1c
m&p-Xylene	ND	ug/kg	11.1	1	11/08/16 11:33	11/08/16 20:46	179601-23-1	1c
n-Butylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	104-51-8	1c
n-Propylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	103-65-1	1c
o-Xylene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	95-47-6	1c
p-Isopropyltoluene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	99-87-6	1c
sec-Butylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	135-98-8	1c
tert-Butylbenzene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	98-06-6	1c
trans-1,2-Dichloroethene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	156-60-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1	11/08/16 11:33	11/08/16 20:46	10061-02-6	1c
Surrogates								
Toluene-d8 (S)	103	%	68-135	1	11/08/16 11:33	11/08/16 20:46	2037-26-5	
4-Bromofluorobenzene (S)	102	%	65-146	1	11/08/16 11:33	11/08/16 20:46	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	69-137	1	11/08/16 11:33	11/08/16 20:46	17060-07-0	
Dibromofluoromethane (S)	100	%	70-130	1	11/08/16 11:33	11/08/16 20:46	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**9.2**	%	0.10	1		11/07/16 16:41		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

QC Batch: 239089 Analysis Method: EPA 7471B
QC Batch Method: EPA 7471B Analysis Description: 7471B Mercury
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

METHOD BLANK: 1174921 Matrix: Solid
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.10	11/04/16 01:55	

LABORATORY CONTROL SAMPLE: 1174922

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.042	.041J	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1174923 1174924

Parameter	Units	30201248003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Mercury	mg/kg	ND	.11	.11	0.13	0.14	107	118	80-120	3	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

QC Batch: 239046 Analysis Method: EPA 6010C
QC Batch Method: EPA 3050B Analysis Description: 6010C MET
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

METHOD BLANK: 1174704 Matrix: Solid
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	mg/kg	ND	10.0	11/04/16 09:50	
Antimony	mg/kg	ND	0.60	11/04/16 09:50	
Arsenic	mg/kg	ND	0.50	11/04/16 09:50	
Barium	mg/kg	ND	2.0	11/04/16 09:50	
Beryllium	mg/kg	ND	0.20	11/04/16 09:50	
Boron	mg/kg	ND	5.0	11/04/16 09:50	
Cadmium	mg/kg	ND	0.30	11/04/16 09:50	
Calcium	mg/kg	ND	200	11/04/16 09:50	
Chromium	mg/kg	ND	0.50	11/04/16 11:18	
Cobalt	mg/kg	ND	1.0	11/04/16 09:50	
Copper	mg/kg	ND	1.0	11/04/16 09:50	
Iron	mg/kg	ND	10.0	11/04/16 09:50	
Lead	mg/kg	ND	0.50	11/04/16 11:18	
Magnesium	mg/kg	ND	50.0	11/04/16 09:50	
Manganese	mg/kg	ND	1.0	11/04/16 09:50	
Molybdenum	mg/kg	ND	2.0	11/04/16 09:50	
Nickel	mg/kg	ND	2.0	11/04/16 09:50	
Potassium	mg/kg	ND	50.0	11/04/16 09:50	
Selenium	mg/kg	ND	0.80	11/04/16 09:50	
Silver	mg/kg	ND	0.60	11/04/16 09:50	
Sodium	mg/kg	ND	500	11/04/16 09:50	
Thallium	mg/kg	ND	2.0	11/04/16 09:50	
Vanadium	mg/kg	ND	1.0	11/04/16 11:18	
Zinc	mg/kg	ND	1.0	11/04/16 09:50	

LABORATORY CONTROL SAMPLE: 1174705

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	mg/kg	500	559	112	80-120	
Antimony	mg/kg	50	59.1	118	80-120	
Arsenic	mg/kg	50	56.4	113	80-120	
Barium	mg/kg	50	57.6	115	80-120	
Beryllium	mg/kg	50	58.2	116	80-120	
Boron	mg/kg	50	54.7	109	80-120	
Cadmium	mg/kg	50	59.2	118	80-120	
Calcium	mg/kg	500	561	112	80-120	
Chromium	mg/kg	50	53.0	106	80-120	
Cobalt	mg/kg	50	59.2	118	80-120	
Copper	mg/kg	50	58.8	118	80-120	
Iron	mg/kg	500	568	114	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

LABORATORY CONTROL SAMPLE: 1174705

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	50	51.2	102	80-120	
Magnesium	mg/kg	500	568	114	80-120	
Manganese	mg/kg	50	58.8	118	80-120	
Molybdenum	mg/kg	50	63.6	127	80-120	L0
Nickel	mg/kg	50	58.6	117	80-120	
Potassium	mg/kg	500	576	115	80-120	
Selenium	mg/kg	50	57.1	114	80-120	
Silver	mg/kg	25	29.9	120	80-120	
Sodium	mg/kg	500	552	110	80-120	
Thallium	mg/kg	50	57.9	116	80-120	
Vanadium	mg/kg	50	51.8	104	80-120	
Zinc	mg/kg	50	59.8	120	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1174706 1174707

Parameter	Units	30201248003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Aluminum	mg/kg	5920	540	520	8290	7580	438	319	75-125	9	M1
Antimony	mg/kg	ND	54	52	38.3	37.6	71	72	75-125	2	M1
Arsenic	mg/kg	3.3	54	52	58.7	58.1	102	105	75-125	1	
Barium	mg/kg	29.9	54	52	101	96.5	131	128	75-125	4	M1
Beryllium	mg/kg	0.38	54	52	57.6	56.5	106	108	75-125	2	
Boron	mg/kg	ND	54	52	57.0	55.6	100	101	75-125	3	
Cadmium	mg/kg	ND	54	52	58.3	57.2	108	110	75-125	2	
Calcium	mg/kg	13600	540	520	14300	14400	126	147	75-125	1	M1
Chromium	mg/kg	7.7	54	52	61.2	59.1	99	99	75-125	4	
Cobalt	mg/kg	5.8	54	52	69.4	67.5	118	119	75-125	3	
Copper	mg/kg	15.5	54	52	73.5	71.2	107	107	75-125	3	
Iron	mg/kg	14300	540	520	15900	14400	298	20	75-125	10	M1
Lead	mg/kg	6.1	54	52	59.7	58.6	99	101	75-125	2	
Magnesium	mg/kg	5280	540	520	5990	6010	131	141	75-125	0	M1
Manganese	mg/kg	274	54	52	360	359	159	164	75-125	0	M1
Molybdenum	mg/kg	ND	54	52	68.8	67.1	126	128	75-125	3	M0
Nickel	mg/kg	11.9	54	52	66.5	63.7	101	100	75-125	4	
Potassium	mg/kg	1110	540	520	1990	1970	163	166	75-125	1	M1
Selenium	mg/kg	ND	54	52	56.0	54.5	104	105	75-125	3	
Silver	mg/kg	ND	27	26	29.8	29.2	110	112	75-125	2	
Sodium	mg/kg	ND	540	520	803	758	111	107	75-125	6	
Thallium	mg/kg	ND	54	52	59.8	59.4	111	114	75-125	1	
Vanadium	mg/kg	12.0	54	52	66.2	64.3	100	101	75-125	3	
Zinc	mg/kg	37.6	54	52	94.7	90.0	106	101	75-125	5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

QC Batch: 239510 Analysis Method: EPA 8260C
QC Batch Method: EPA 5035A Analysis Description: 8260C MSV 5035 Low
Associated Lab Samples: 30201248001, 30201248002, 30201248005, 30201248006, 30201248007, 30201248008, 30201248011, 30201248012, 30201248013, 30201248014, 30201248015, 30201248016, 30201248019, 30201248020

METHOD BLANK: 1177025 Matrix: Solid
Associated Lab Samples: 30201248001, 30201248002, 30201248005, 30201248006, 30201248007, 30201248008, 30201248011, 30201248012, 30201248013, 30201248014, 30201248015, 30201248016, 30201248019, 30201248020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	11/08/16 14:03	
1,1,1-Trichloroethane	ug/kg	ND	5.0	11/08/16 14:03	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	11/08/16 14:03	
1,1,2-Trichloroethane	ug/kg	ND	5.0	11/08/16 14:03	
1,1-Dichloroethane	ug/kg	ND	5.0	11/08/16 14:03	
1,1-Dichloroethene	ug/kg	ND	5.0	11/08/16 14:03	
1,1-Dichloropropene	ug/kg	ND	5.0	11/08/16 14:03	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	11/08/16 14:03	
1,2,3-Trichloropropane	ug/kg	ND	5.0	11/08/16 14:03	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	11/08/16 14:03	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	11/08/16 14:03	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	11/08/16 14:03	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	11/08/16 14:03	
1,2-Dichlorobenzene	ug/kg	ND	5.0	11/08/16 14:03	
1,2-Dichloropropane	ug/kg	ND	5.0	11/08/16 14:03	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	11/08/16 14:03	
1,3-Dichlorobenzene	ug/kg	ND	5.0	11/08/16 14:03	
1,3-Dichloropropane	ug/kg	ND	5.0	11/08/16 14:03	
1,4-Dichlorobenzene	ug/kg	ND	5.0	11/08/16 14:03	
2,2-Dichloropropane	ug/kg	ND	5.0	11/08/16 14:03	
2-Butanone (MEK)	ug/kg	ND	10.0	11/08/16 14:03	
2-Chlorotoluene	ug/kg	ND	5.0	11/08/16 14:03	
2-Hexanone	ug/kg	ND	10.0	11/08/16 14:03	
4-Chlorotoluene	ug/kg	ND	5.0	11/08/16 14:03	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	10.0	11/08/16 14:03	
Acetone	ug/kg	ND	10.0	11/08/16 14:03	
Benzene	ug/kg	ND	5.0	11/08/16 14:03	
Bromobenzene	ug/kg	ND	5.0	11/08/16 14:03	
Bromochloromethane	ug/kg	ND	5.0	11/08/16 14:03	
Bromodichloromethane	ug/kg	ND	5.0	11/08/16 14:03	
Bromoform	ug/kg	ND	5.0	11/08/16 14:03	
Bromomethane	ug/kg	ND	5.0	11/08/16 14:03	
Carbon disulfide	ug/kg	ND	5.0	11/08/16 14:03	
Carbon tetrachloride	ug/kg	ND	5.0	11/08/16 14:03	
Chlorobenzene	ug/kg	ND	5.0	11/08/16 14:03	
Chloroethane	ug/kg	ND	5.0	11/08/16 14:03	
Chloroform	ug/kg	ND	5.0	11/08/16 14:03	
Chloromethane	ug/kg	ND	5.0	11/08/16 14:03	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	11/08/16 14:03	
cis-1,3-Dichloropropene	ug/kg	ND	5.0	11/08/16 14:03	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

METHOD BLANK: 1177025 Matrix: Solid
Associated Lab Samples: 30201248001, 30201248002, 30201248005, 30201248006, 30201248007, 30201248008, 30201248011, 30201248012, 30201248013, 30201248014, 30201248015, 30201248016, 30201248019, 30201248020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.0	11/08/16 14:03	
Dibromomethane	ug/kg	ND	5.0	11/08/16 14:03	
Dichlorodifluoromethane	ug/kg	ND	5.0	11/08/16 14:03	
Ethylbenzene	ug/kg	ND	5.0	11/08/16 14:03	
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	11/08/16 14:03	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	11/08/16 14:03	
m&p-Xylene	ug/kg	ND	10.0	11/08/16 14:03	
Methyl-tert-butyl ether	ug/kg	ND	5.0	11/08/16 14:03	
Methylene Chloride	ug/kg	ND	5.0	11/08/16 14:03	
n-Butylbenzene	ug/kg	ND	5.0	11/08/16 14:03	
n-Propylbenzene	ug/kg	ND	5.0	11/08/16 14:03	
Naphthalene	ug/kg	ND	5.0	11/08/16 14:03	
o-Xylene	ug/kg	ND	5.0	11/08/16 14:03	
p-Isopropyltoluene	ug/kg	ND	5.0	11/08/16 14:03	
sec-Butylbenzene	ug/kg	ND	5.0	11/08/16 14:03	
Styrene	ug/kg	ND	5.0	11/08/16 14:03	
tert-Butylbenzene	ug/kg	ND	5.0	11/08/16 14:03	
Tetrachloroethene	ug/kg	ND	5.0	11/08/16 14:03	
Toluene	ug/kg	ND	5.0	11/08/16 14:03	
TOTAL BTEX	ug/kg	ND	30.0	11/08/16 14:03	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	11/08/16 14:03	
trans-1,3-Dichloropropene	ug/kg	ND	5.0	11/08/16 14:03	
Trichloroethene	ug/kg	ND	5.0	11/08/16 14:03	
Trichlorofluoromethane	ug/kg	ND	5.0	11/08/16 14:03	
Vinyl acetate	ug/kg	ND	50.0	11/08/16 14:03	
Vinyl chloride	ug/kg	ND	5.0	11/08/16 14:03	
Xylene (Total)	ug/kg	ND	15.0	11/08/16 14:03	
1,2-Dichloroethane-d4 (S)	%	98	69-137	11/08/16 14:03	
4-Bromofluorobenzene (S)	%	100	65-146	11/08/16 14:03	
Dibromofluoromethane (S)	%	100	70-130	11/08/16 14:03	
Toluene-d8 (S)	%	100	68-135	11/08/16 14:03	

LABORATORY CONTROL SAMPLE: 1177026

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	20	19.1	96	59-126	
1,1,1-Trichloroethane	ug/kg	20	20.3	102	71-130	
1,1,2,2-Tetrachloroethane	ug/kg	20	19.7	99	66-123	
1,1,2-Trichloroethane	ug/kg	20	20.1	100	75-115	
1,1-Dichloroethane	ug/kg	20	20.1	100	65-126	
1,1-Dichloroethene	ug/kg	20	20.8	104	62-137	
1,1-Dichloropropene	ug/kg	20	20.3	101	50-144	
1,2,3-Trichlorobenzene	ug/kg	20	21.9	110	65-135	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

LABORATORY CONTROL SAMPLE: 1177026

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	20	19.0	95	63-120	
1,2,4-Trichlorobenzene	ug/kg	20	21.6	108	78-137	
1,2,4-Trimethylbenzene	ug/kg	20	20.6	103	79-125	
1,2-Dibromo-3-chloropropane	ug/kg	20	18.1	91	21-150	
1,2-Dibromoethane (EDB)	ug/kg	20	20.7	104	74-118	
1,2-Dichlorobenzene	ug/kg	20	20.2	101	82-121	
1,2-Dichloropropane	ug/kg	20	19.8	99	67-119	
1,3,5-Trimethylbenzene	ug/kg	20	20.5	103	74-129	
1,3-Dichlorobenzene	ug/kg	20	20.3	101	80-124	
1,3-Dichloropropane	ug/kg	20	20.2	101	65-121	
1,4-Dichlorobenzene	ug/kg	20	20.5	103	80-126	
2,2-Dichloropropane	ug/kg	20	20.5	103	32-155	
2-Butanone (MEK)	ug/kg	20	16.7	84	42-116	
2-Chlorotoluene	ug/kg	20	21.3	106	62-131	
2-Hexanone	ug/kg	20	20.5	103	54-121	
4-Chlorotoluene	ug/kg	20	20.0	100	58-131	
4-Methyl-2-pentanone (MIBK)	ug/kg	20	15.3	76	52-119	
Acetone	ug/kg	20	18.9	94	32-113	
Benzene	ug/kg	20	20.5	103	71-137	
Bromobenzene	ug/kg	20	20.1	100	52-135	
Bromochloromethane	ug/kg	20	19.8	99	63-127	
Bromodichloromethane	ug/kg	20	20.7	104	67-121	
Bromoform	ug/kg	20	18.4	92	58-122	
Bromomethane	ug/kg	20	21.9	109	27-164	
Carbon disulfide	ug/kg	20	17.9	90	60-172	
Carbon tetrachloride	ug/kg	20	20.4	102	66-132	
Chlorobenzene	ug/kg	20	20.0	100	80-119	
Chloroethane	ug/kg	20	18.2	91	53-149	
Chloroform	ug/kg	20	20.0	100	70-120	
Chloromethane	ug/kg	20	20.9	104	47-147	
cis-1,2-Dichloroethene	ug/kg	20	19.7	99	64-120	
cis-1,3-Dichloropropene	ug/kg	20	20.2	101	67-123	
Dibromochloromethane	ug/kg	20	19.3	97	67-120	
Dibromomethane	ug/kg	20	20.0	100	54-123	
Dichlorodifluoromethane	ug/kg	20	17.6	88	10-175	
Ethylbenzene	ug/kg	20	19.8	99	78-126	
Hexachloro-1,3-butadiene	ug/kg	20	20.5	103	52-156	
Isopropylbenzene (Cumene)	ug/kg	20	20.7	104	78-133	
m&p-Xylene	ug/kg	40	39.9	100	77-129	
Methyl-tert-butyl ether	ug/kg	20	17.5	87	77-141	
Methylene Chloride	ug/kg	20	19.1	96	50-125	
n-Butylbenzene	ug/kg	20	20.9	105	74-140	
n-Propylbenzene	ug/kg	20	20.5	102	70-140	
Naphthalene	ug/kg	20	20.7	103	81-126	
o-Xylene	ug/kg	20	19.6	98	80-125	
p-Isopropyltoluene	ug/kg	20	20.6	103	74-136	
sec-Butylbenzene	ug/kg	20	20.9	105	81-132	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

LABORATORY CONTROL SAMPLE: 1177026

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	20	20.0	100	79-130	
tert-Butylbenzene	ug/kg	20	20.8	104	77-129	
Tetrachloroethene	ug/kg	20	20.7	104	73-135	
Toluene	ug/kg	20	20.9	105	72-127	
TOTAL BTEX	ug/kg		121			
trans-1,2-Dichloroethene	ug/kg	20	20.6	103	64-131	
trans-1,3-Dichloropropene	ug/kg	20	19.2	96	66-116	
Trichloroethene	ug/kg	20	20.6	103	73-125	
Trichlorofluoromethane	ug/kg	20	20.4	102	39-192	
Vinyl acetate	ug/kg	20	23.3J	117	10-175	
Vinyl chloride	ug/kg	20	19.6	98	46-138	
Xylene (Total)	ug/kg	60	59.5	99	80-124	
1,2-Dichloroethane-d4 (S)	%			96	69-137	
4-Bromofluorobenzene (S)	%			101	65-146	
Dibromofluoromethane (S)	%			97	70-130	
Toluene-d8 (S)	%			100	68-135	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

QC Batch: 239092 Analysis Method: EPA 8081B
QC Batch Method: EPA 3546 Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

METHOD BLANK: 1174932 Matrix: Solid
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4,4'-DDD	ug/kg	ND	3.3	11/07/16 19:52	
4,4'-DDE	ug/kg	ND	3.3	11/07/16 19:52	
4,4'-DDT	ug/kg	ND	3.3	11/07/16 19:52	
Aldrin	ug/kg	ND	1.7	11/07/16 19:52	
alpha-BHC	ug/kg	ND	1.7	11/07/16 19:52	
alpha-Chlordane	ug/kg	ND	1.7	11/07/16 19:52	
beta-BHC	ug/kg	ND	1.7	11/07/16 19:52	
delta-BHC	ug/kg	ND	1.7	11/07/16 19:52	
Dieldrin	ug/kg	ND	3.3	11/07/16 19:52	
Endosulfan I	ug/kg	ND	1.7	11/07/16 19:52	
Endosulfan II	ug/kg	ND	3.3	11/07/16 19:52	
Endosulfan sulfate	ug/kg	ND	3.3	11/07/16 19:52	
Endrin	ug/kg	ND	3.3	11/07/16 19:52	
Endrin aldehyde	ug/kg	ND	3.3	11/07/16 19:52	
Endrin ketone	ug/kg	ND	3.3	11/07/16 19:52	
gamma-BHC (Lindane)	ug/kg	ND	1.7	11/07/16 19:52	
gamma-Chlordane	ug/kg	ND	1.7	11/07/16 19:52	
Heptachlor	ug/kg	ND	1.7	11/07/16 19:52	
Heptachlor epoxide	ug/kg	ND	1.7	11/07/16 19:52	
Methoxychlor	ug/kg	ND	16.7	11/07/16 19:52	
Toxaphene	ug/kg	ND	16.7	11/07/16 19:52	
Decachlorobiphenyl (S)	%	75	39-122	11/07/16 19:52	
Tetrachloro-m-xylene (S)	%	66	37-113	11/07/16 19:52	

LABORATORY CONTROL SAMPLE: 1174933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDD	ug/kg	26.7	21.6	81	64-119	
4,4'-DDE	ug/kg	26.7	22.4	84	50-114	
4,4'-DDT	ug/kg	26.7	21.8	82	68-118	
Aldrin	ug/kg	13.3	10	75	50-98	
alpha-BHC	ug/kg	13.3	10	75	50-105	
alpha-Chlordane	ug/kg	13.3	10.6	79	51-104	
beta-BHC	ug/kg	13.3	10.5	79	49-104	
delta-BHC	ug/kg	13.3	10.5	79	48-113	
Dieldrin	ug/kg	26.7	22.2	83	63-112	
Endosulfan I	ug/kg	13.3	10.1	76	60-108	
Endosulfan II	ug/kg	26.7	21.6	81	51-112	
Endosulfan sulfate	ug/kg	26.7	21.5	81	54-112	
Endrin	ug/kg	26.7	21.5	81	65-114	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

LABORATORY CONTROL SAMPLE: 1174933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Endrin aldehyde	ug/kg	26.7	21.4	80	53-145	
Endrin ketone	ug/kg	26.7	22.3	84	57-123	
gamma-BHC (Lindane)	ug/kg	13.3	10.2	77	55-112	
gamma-Chlordane	ug/kg	13.3	10.3	77	53-102	
Heptachlor	ug/kg	13.3	10.2	76	59-108	
Heptachlor epoxide	ug/kg	13.3	10.5	79	51-105	
Methoxychlor	ug/kg	133	105	78	64-116	CL
Decachlorobiphenyl (S)	%			78	39-122	
Tetrachloro-m-xylene (S)	%			66	37-113	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1174934 1174935

Parameter	Units	30201248003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
4,4'-DDD	ug/kg	ND	29.2	28.5	22.6	21.6	77	76	64-119	5	
4,4'-DDE	ug/kg	ND	29.2	28.5	23.3	22.1	80	78	50-114	5	CH
4,4'-DDT	ug/kg	ND	29.2	28.5	23.0	22.0	79	77	68-118	5	
Aldrin	ug/kg	ND	14.7	14.3	10.4	9.9	71	69	50-98	5	
alpha-BHC	ug/kg	ND	14.7	14.3	10.3	9.8	71	69	50-105	5	
alpha-Chlordane	ug/kg	ND	14.7	14.3	11.1	10.5	76	73	51-104	5	
beta-BHC	ug/kg	ND	14.7	14.3	11.1	10.5	76	74	49-104	5	
delta-BHC	ug/kg	ND	14.7	14.3	11.1	10.6	76	74	48-113	5	
Dieldrin	ug/kg	ND	29.2	28.5	23.2	21.9	79	77	63-112	6	
Endosulfan I	ug/kg	ND	14.7	14.3	10.5	10	72	70	60-108	6	
Endosulfan II	ug/kg	ND	29.2	28.5	22.6	21.7	77	76	51-112	4	
Endosulfan sulfate	ug/kg	ND	29.2	28.5	22.8	21.9	78	77	54-112	4	
Endrin	ug/kg	ND	29.2	28.5	22.5	21.4	77	75	65-114	5	
Endrin aldehyde	ug/kg	ND	29.2	28.5	22.1	21.5	76	75	53-145	3	
Endrin ketone	ug/kg	ND	29.2	28.5	23.3	22.4	80	79	57-123	4	
gamma-BHC (Lindane)	ug/kg	ND	14.7	14.3	10.7	10.2	73	71	55-112	5	
gamma-Chlordane	ug/kg	ND	14.7	14.3	10.7	10.3	74	72	53-102	4	
Heptachlor	ug/kg	ND	14.7	14.3	10.7	10.2	74	72	59-108	5	
Heptachlor epoxide	ug/kg	ND	14.7	14.3	11.0	10.5	75	73	51-105	5	
Methoxychlor	ug/kg	ND	147	143	109	106	75	75	64-116	3	CH
Decachlorobiphenyl (S)	%						71	67	39-122		
Tetrachloro-m-xylene (S)	%						59	55	37-113		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

QC Batch: 239099 Analysis Method: EPA 8270D
QC Batch Method: EPA 3546 Analysis Description: 8270D Solid MSSV Microwave
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

METHOD BLANK: 1174940 Matrix: Solid
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	333	11/10/16 13:53	
1,2-Dichlorobenzene	ug/kg	ND	333	11/10/16 13:53	
1,3-Dichlorobenzene	ug/kg	ND	333	11/10/16 13:53	
1,4-Dichlorobenzene	ug/kg	ND	333	11/10/16 13:53	
2,4,5-Trichlorophenol	ug/kg	ND	833	11/10/16 13:53	
2,4,6-Trichlorophenol	ug/kg	ND	333	11/10/16 13:53	
2,4-Dichlorophenol	ug/kg	ND	333	11/10/16 13:53	SS
2,4-Dimethylphenol	ug/kg	ND	333	11/10/16 13:53	
2,4-Dinitrophenol	ug/kg	ND	833	11/10/16 13:53	
2,4-Dinitrotoluene	ug/kg	ND	333	11/10/16 13:53	
2,6-Dinitrotoluene	ug/kg	ND	333	11/10/16 13:53	
2-Chloronaphthalene	ug/kg	ND	333	11/10/16 13:53	
2-Chlorophenol	ug/kg	ND	333	11/10/16 13:53	
2-Methylnaphthalene	ug/kg	ND	333	11/10/16 13:53	
2-Methylphenol(o-Cresol)	ug/kg	ND	333	11/10/16 13:53	
2-Nitroaniline	ug/kg	ND	833	11/10/16 13:53	
2-Nitrophenol	ug/kg	ND	333	11/10/16 13:53	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	666	11/10/16 13:53	
3,3'-Dichlorobenzidine	ug/kg	ND	333	11/10/16 13:53	
3-Nitroaniline	ug/kg	ND	833	11/10/16 13:53	
4,6-Dinitro-2-methylphenol	ug/kg	ND	833	11/10/16 13:53	SS
4-Bromophenylphenyl ether	ug/kg	ND	333	11/10/16 13:53	
4-Chloro-3-methylphenol	ug/kg	ND	333	11/10/16 13:53	
4-Chloroaniline	ug/kg	ND	333	11/10/16 13:53	
4-Chlorophenylphenyl ether	ug/kg	ND	333	11/10/16 13:53	
4-Nitroaniline	ug/kg	ND	833	11/10/16 13:53	
4-Nitrophenol	ug/kg	ND	333	11/10/16 13:53	
Acenaphthene	ug/kg	ND	333	11/10/16 13:53	
Acenaphthylene	ug/kg	ND	333	11/10/16 13:53	
Anthracene	ug/kg	ND	333	11/10/16 13:53	
Benzo(a)anthracene	ug/kg	ND	333	11/10/16 13:53	
Benzo(a)pyrene	ug/kg	ND	333	11/10/16 13:53	
Benzo(b)fluoranthene	ug/kg	ND	333	11/10/16 13:53	
Benzo(g,h,i)perylene	ug/kg	ND	333	11/10/16 13:53	
Benzo(k)fluoranthene	ug/kg	ND	333	11/10/16 13:53	
Benzyl alcohol	ug/kg	ND	333	11/10/16 13:53	
bis(2-Chloroethoxy)methane	ug/kg	ND	333	11/10/16 13:53	
bis(2-Chloroethyl) ether	ug/kg	ND	333	11/10/16 13:53	
bis(2-Chloroisopropyl) ether	ug/kg	ND	333	11/10/16 13:53	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	333	11/10/16 13:53	
Butylbenzylphthalate	ug/kg	ND	333	11/10/16 13:53	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

METHOD BLANK: 1174940 Matrix: Solid
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chrysene	ug/kg	ND	333	11/10/16 13:53	
Di-n-butylphthalate	ug/kg	ND	333	11/10/16 13:53	
Di-n-octylphthalate	ug/kg	ND	333	11/10/16 13:53	
Dibenz(a,h)anthracene	ug/kg	ND	333	11/10/16 13:53	
Dibenzofuran	ug/kg	ND	333	11/10/16 13:53	
Diethylphthalate	ug/kg	ND	333	11/10/16 13:53	
Dimethylphthalate	ug/kg	ND	333	11/10/16 13:53	
Fluoranthene	ug/kg	ND	333	11/10/16 13:53	
Fluorene	ug/kg	ND	333	11/10/16 13:53	
Hexachloro-1,3-butadiene	ug/kg	ND	333	11/10/16 13:53	
Hexachlorobenzene	ug/kg	ND	333	11/10/16 13:53	
Hexachlorocyclopentadiene	ug/kg	ND	333	11/10/16 13:53	
Hexachloroethane	ug/kg	ND	333	11/10/16 13:53	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	333	11/10/16 13:53	
Isophorone	ug/kg	ND	333	11/10/16 13:53	
N-Nitroso-di-n-propylamine	ug/kg	ND	333	11/10/16 13:53	
N-Nitrosodiphenylamine	ug/kg	ND	333	11/10/16 13:53	
Naphthalene	ug/kg	ND	333	11/10/16 13:53	
Nitrobenzene	ug/kg	ND	333	11/10/16 13:53	
Pentachlorophenol	ug/kg	ND	833	11/10/16 13:53	
Phenanthrene	ug/kg	ND	333	11/10/16 13:53	
Phenol	ug/kg	ND	333	11/10/16 13:53	
Pyrene	ug/kg	ND	333	11/10/16 13:53	
2,4,6-Tribromophenol (S)	%	69	10-140	11/10/16 13:53	
2-Fluorobiphenyl (S)	%	71	38-105	11/10/16 13:53	
2-Fluorophenol (S)	%	76	10-123	11/10/16 13:53	
Nitrobenzene-d5 (S)	%	73	33-104	11/10/16 13:53	
Phenol-d6 (S)	%	74	32-111	11/10/16 13:53	
Terphenyl-d14 (S)	%	83	33-149	11/10/16 13:53	

LABORATORY CONTROL SAMPLE: 1174941

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	3330	2190	66	51-92	
1,2-Dichlorobenzene	ug/kg	3330	2660	80	61-115	
1,3-Dichlorobenzene	ug/kg	3330	2560	77	60-113	
1,4-Dichlorobenzene	ug/kg	3330	2620	79	63-110	
2,4,5-Trichlorophenol	ug/kg	3330	2910	87	43-133	
2,4,6-Trichlorophenol	ug/kg	3330	2890	87	38-140	
2,4-Dichlorophenol	ug/kg	3330	2260	68	34-92	
2,4-Dimethylphenol	ug/kg	3330	2130	64	30-89	
2,4-Dinitrophenol	ug/kg	3330	1700	51	10-145	SS
2,4-Dinitrotoluene	ug/kg	3330	3050	91	55-136	
2,6-Dinitrotoluene	ug/kg	3330	2980	89	51-134	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

LABORATORY CONTROL SAMPLE: 1174941

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Chloronaphthalene	ug/kg	3330	2710	81	41-129	
2-Chlorophenol	ug/kg	3330	2800	84	31-121	
2-Methylnaphthalene	ug/kg	3330	2160	65	35-87	
2-Methylphenol(o-Cresol)	ug/kg	3330	2750	83	32-121	
2-Nitroaniline	ug/kg	3330	2890	87	51-135	
2-Nitrophenol	ug/kg	3330	2210	66	51-92	
3&4-Methylphenol(m&p Cresol)	ug/kg	3330	2700	81	37-121	
3,3'-Dichlorobenzidine	ug/kg	3330	2630	79	42-127	
3-Nitroaniline	ug/kg	3330	2970	89	46-158	
4,6-Dinitro-2-methylphenol	ug/kg	3330	2960	89	47-149	SS
4-Bromophenylphenyl ether	ug/kg	3330	2770	83	62-139	
4-Chloro-3-methylphenol	ug/kg	3330	2370	71	53-95	
4-Chloroaniline	ug/kg	3330	1600	48	24-82	
4-Chlorophenylphenyl ether	ug/kg	3330	2840	85	69-127	
4-Nitroaniline	ug/kg	3330	3840	115	46-155	
4-Nitrophenol	ug/kg	3330	3030	91	57-142	
Acenaphthene	ug/kg	3330	2820	85	45-127	
Acenaphthylene	ug/kg	3330	2870	86	42-126	
Anthracene	ug/kg	3330	2660	80	56-118	
Benzo(a)anthracene	ug/kg	3330	2880	87	67-121	
Benzo(a)pyrene	ug/kg	3330	2760	83	66-118	
Benzo(b)fluoranthene	ug/kg	3330	2810	84	58-134	
Benzo(g,h,i)perylene	ug/kg	3330	2970	89	23-164	
Benzo(k)fluoranthene	ug/kg	3330	2910	87	64-133	
Benzyl alcohol	ug/kg	3330	2670	80	47-138	
bis(2-Chloroethoxy)methane	ug/kg	3330	2260	68	36-92	
bis(2-Chloroethyl) ether	ug/kg	3330	2530	76	31-115	
bis(2-Chloroisopropyl) ether	ug/kg	3330	2770	83	31-123	
bis(2-Ethylhexyl)phthalate	ug/kg	3330	2860	86	59-137	
Butylbenzylphthalate	ug/kg	3330	2860	86	65-134	
Chrysene	ug/kg	3330	2880	86	69-121	
Di-n-butylphthalate	ug/kg	3330	2940	88	64-131	
Di-n-octylphthalate	ug/kg	3330	2830	85	51-147	
Dibenz(a,h)anthracene	ug/kg	3330	2980	89	34-159	
Dibenzofuran	ug/kg	3330	2780	83	70-120	
Diethylphthalate	ug/kg	3330	2890	87	62-124	
Dimethylphthalate	ug/kg	3330	2850	85	71-126	
Fluoranthene	ug/kg	3330	2950	88	63-124	
Fluorene	ug/kg	3330	2850	86	49-124	
Hexachloro-1,3-butadiene	ug/kg	3330	2280	68	27-104	
Hexachlorobenzene	ug/kg	3330	2810	84	49-136	
Hexachlorocyclopentadiene	ug/kg	3330	2330	70	10-121	
Hexachloroethane	ug/kg	3330	2610	78	28-121	
Indeno(1,2,3-cd)pyrene	ug/kg	3330	2880	86	34-159	
Isophorone	ug/kg	3330	2360	71	39-91	
N-Nitroso-di-n-propylamine	ug/kg	3330	2830	85	37-122	
N-Nitrosodiphenylamine	ug/kg	3330	2200	66	36-104	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

LABORATORY CONTROL SAMPLE: 1174941

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	3330	2230	67	34-89	
Nitrobenzene	ug/kg	3330	2300	69	36-90	
Pentachlorophenol	ug/kg	3330	3100	93	34-139	
Phenanthrene	ug/kg	3330	2880	87	57-120	
Phenol	ug/kg	3330	2720	82	35-119	
Pyrene	ug/kg	3330	2810	84	64-128	
2,4,6-Tribromophenol (S)	%			86	10-140	
2-Fluorobiphenyl (S)	%			78	38-105	
2-Fluorophenol (S)	%			83	10-123	
Nitrobenzene-d5 (S)	%			65	33-104	
Phenol-d6 (S)	%			81	32-111	
Terphenyl-d14 (S)	%			80	33-149	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1174942 1174943

Parameter	Units	30201248003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2,4-Trichlorobenzene	ug/kg	ND	3660	3590	2190	2240	60	62	51-92	2	
1,2-Dichlorobenzene	ug/kg	ND	3660	3590	2590	2800	71	78	61-115	8	
1,3-Dichlorobenzene	ug/kg	ND	3660	3590	2550	2710	70	75	60-113	6	
1,4-Dichlorobenzene	ug/kg	ND	3660	3590	2570	2700	70	75	63-110	5	
2,4,5-Trichlorophenol	ug/kg	ND	3660	3590	2390	3120	65	87	43-133	27	R1
2,4,6-Trichlorophenol	ug/kg	ND	3660	3590	3420	2970	94	83	38-140	14	
2,4-Dichlorophenol	ug/kg	ND	3660	3590	2290	2310	63	64	34-92	0	
2,4-Dimethylphenol	ug/kg	ND	3660	3590	2030	2080	55	58	30-89	2	
2,4-Dinitrophenol	ug/kg	ND	3660	3590	1300	943	36	26	10-145	32	R1,SS
2,4-Dinitrotoluene	ug/kg	ND	3660	3590	2980	3110	82	87	55-136	4	
2,6-Dinitrotoluene	ug/kg	ND	3660	3590	2900	3160	79	88	51-134	9	
2-Chloronaphthalene	ug/kg	ND	3660	3590	2640	2750	72	77	41-129	4	
2-Chlorophenol	ug/kg	ND	3660	3590	2750	2960	75	82	31-121	7	
2-Methylnaphthalene	ug/kg	ND	3660	3590	2140	2210	59	62	35-87	3	
2-Methylphenol(o-Cresol)	ug/kg	ND	3660	3590	2790	2930	76	82	32-121	5	
2-Nitroaniline	ug/kg	ND	3660	3590	2890	2960	79	83	51-135	3	
2-Nitrophenol	ug/kg	ND	3660	3590	2300	2270	63	63	51-92	1	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	3660	3590	2650	2870	73	80	37-121	8	
3,3'-Dichlorobenzidine	ug/kg	ND	3660	3590	2550	2780	70	78	42-127	9	
3-Nitroaniline	ug/kg	ND	3660	3590	3030	3120	83	87	46-158	3	
4,6-Dinitro-2-methylphenol	ug/kg	ND	3660	3590	2070	1910	57	53	47-149	8	SS
4-Bromophenylphenyl ether	ug/kg	ND	3660	3590	2620	2750	72	77	62-139	5	
4-Chloro-3-methylphenol	ug/kg	ND	3660	3590	2420	2460	66	69	53-95	2	
4-Chloroaniline	ug/kg	ND	3660	3590	1980	1800	54	50	24-82	10	
4-Chlorophenylphenyl ether	ug/kg	ND	3660	3590	2730	2930	75	82	69-127	7	
4-Nitroaniline	ug/kg	ND	3660	3590	3970	3920	109	109	46-155	1	
4-Nitrophenol	ug/kg	ND	3660	3590	2840	2760	78	77	57-142	3	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1174942 1174943

Parameter	Units	30201248003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Acenaphthene	ug/kg	ND	3660	3590	2740	2880	75	80	45-127	5	
Acenaphthylene	ug/kg	ND	3660	3590	2780	2940	76	82	42-126	6	
Anthracene	ug/kg	ND	3660	3590	2420	2730	66	76	56-118	12	
Benzo(a)anthracene	ug/kg	ND	3660	3590	2690	2770	74	77	67-121	3	
Benzo(a)pyrene	ug/kg	ND	3660	3590	2570	2810	70	78	66-118	9	
Benzo(b)fluoranthene	ug/kg	ND	3660	3590	2710	2920	74	81	58-134	7	
Benzo(g,h,i)perylene	ug/kg	ND	3660	3590	1690	1950	46	54	23-164	14	
Benzo(k)fluoranthene	ug/kg	ND	3660	3590	2690	2970	74	83	64-133	10	
Benzyl alcohol	ug/kg	ND	3660	3590	2440	2630	67	73	47-138	7	
bis(2-Chloroethoxy)methane	ug/kg	ND	3660	3590	2300	2330	63	65	36-92	1	
bis(2-Chloroethyl) ether	ug/kg	ND	3660	3590	2430	2620	67	73	31-115	8	
bis(2-Chloroisopropyl) ether	ug/kg	ND	3660	3590	2710	2930	74	82	31-123	8	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	3660	3590	2870	2990	79	83	59-137	4	
Butylbenzylphthalate	ug/kg	ND	3660	3590	2870	2990	79	83	65-134	4	
Chrysene	ug/kg	ND	3660	3590	2550	2760	70	77	69-121	8	
Di-n-butylphthalate	ug/kg	ND	3660	3590	2660	2900	73	81	64-131	9	
Di-n-octylphthalate	ug/kg	ND	3660	3590	2750	3060	75	85	51-147	11	
Dibenz(a,h)anthracene	ug/kg	ND	3660	3590	2040	2280	56	64	34-159	11	
Dibenzofuran	ug/kg	ND	3660	3590	2710	2830	74	79	70-120	4	
Diethylphthalate	ug/kg	ND	3660	3590	2780	2990	76	83	62-124	7	
Dimethylphthalate	ug/kg	ND	3660	3590	2790	2940	76	82	71-126	5	
Fluoranthene	ug/kg	ND	3660	3590	2550	2850	70	79	63-124	11	
Fluorene	ug/kg	ND	3660	3590	2720	2900	75	81	49-124	6	
Hexachloro-1,3-butadiene	ug/kg	ND	3660	3590	2250	2300	61	64	27-104	2	
Hexachlorobenzene	ug/kg	ND	3660	3590	2620	2810	72	78	49-136	7	
Hexachlorocyclopentadiene	ug/kg	ND	3660	3590	2310	1930	63	54	10-121	18	
Hexachloroethane	ug/kg	ND	3660	3590	2610	2760	72	77	28-121	5	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	3660	3590	1940	2200	53	61	34-159	12	
Isophorone	ug/kg	ND	3660	3590	2380	2460	65	69	39-91	4	
N-Nitroso-di-n-propylamine	ug/kg	ND	3660	3590	2850	3050	78	85	37-122	7	
N-Nitrosodiphenylamine	ug/kg	ND	3660	3590	2060	2220	56	62	36-104	7	
Naphthalene	ug/kg	ND	3660	3590	2230	2280	61	63	34-89	2	
Nitrobenzene	ug/kg	ND	3660	3590	2340	2340	64	65	36-90	0	
Pentachlorophenol	ug/kg	ND	3660	3590	2790	2940	76	82	34-139	5	
Phenanthrene	ug/kg	ND	3660	3590	2800	2810	77	78	57-120	0	
Phenol	ug/kg	ND	3660	3590	2710	2910	74	81	35-119	7	
Pyrene	ug/kg	ND	3660	3590	2760	2860	75	80	64-128	4	
2,4,6-Tribromophenol (S)	%						69	73	10-140		
2-Fluorobiphenyl (S)	%						65	72	38-105		
2-Fluorophenol (S)	%						70	80	10-123		
Nitrobenzene-d5 (S)	%						57	61	33-104		
Phenol-d6 (S)	%						68	79	32-111		
Terphenyl-d14 (S)	%						69	75	33-149		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

QC Batch: 239440 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30201248001, 30201248002, 30201248003, 30201248004, 30201248005, 30201248006, 30201248007, 30201248008, 30201248009, 30201248010, 30201248011, 30201248012, 30201248013, 30201248014, 30201248015, 30201248016, 30201248017, 30201248018

SAMPLE DUPLICATE: 1176809

Parameter	Units	30200315001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	60.1	55.9	7	

SAMPLE DUPLICATE: 1176810

Parameter	Units	30201248001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	10.1	10.3	2	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

QC Batch: 239441
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30201248019, 30201248020

SAMPLE DUPLICATE: 1176811

Parameter	Units	30200456001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	11.2	13.6	20	

SAMPLE DUPLICATE: 1176812

Parameter	Units	30201248019 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	13.9	13.5	3	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

QC Batch: 239006 Analysis Method: EPA 7196A
QC Batch Method: EPA 7196A Analysis Description: 7196 Chromium, Hexavalent
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

METHOD BLANK: 1174574 Matrix: Solid
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/kg	ND	1.0	11/04/16 13:50	

LABORATORY CONTROL SAMPLE: 1174575

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	19.6	20.4	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1174579 1174580

Parameter	Units	30200782022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chromium, Hexavalent	mg/kg	ND	21.3	21.1	9.4	10.6	43	49	75-125	12	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 16110028
Pace Project No.: 30201248

QC Batch: 239451 Analysis Method: EPA 9012B
QC Batch Method: EPA 9012B Analysis Description: 9012B Cyanide
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

METHOD BLANK: 1176840 Matrix: Solid
Associated Lab Samples: 30201248003, 30201248004, 30201248009, 30201248010, 30201248017, 30201248018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/kg	ND	1.0	11/07/16 22:02	

LABORATORY CONTROL SAMPLE: 1176841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	6	5.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1176842 1176843

Parameter	Units	30201248003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Cyanide	mg/kg	ND	3.3	3.3	3.3	3.2	99	95	90-110	4	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 16110028
Pace Project No.: 30201248

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

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.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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.

BATCH QUALIFIERS

Batch: 239510

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
2c	The result for DDE is reported from the reara analytical column due to a high response in the calibration standard on the front analytical cloumn. The lower of the two results is reported.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
IS	The internal standard response is below criteria. Results may be biased high.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
SS	This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 16110028
Pace Project No.: 30201248

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30201248003	SC-25	EPA 3546	239092	EPA 8081B	239416
30201248004	SC-26	EPA 3546	239092	EPA 8081B	239416
30201248009	SC-27	EPA 3546	239092	EPA 8081B	239416
30201248010	SC-28	EPA 3546	239092	EPA 8081B	239416
30201248017	MULCH-C01	EPA 3546	239092	EPA 8081B	239416
30201248018	MULCH-C02	EPA 3546	239092	EPA 8081B	239416
30201248003	SC-25	EPA 3050B	239046	EPA 6010C	239151
30201248004	SC-26	EPA 3050B	239046	EPA 6010C	239151
30201248009	SC-27	EPA 3050B	239046	EPA 6010C	239151
30201248010	SC-28	EPA 3050B	239046	EPA 6010C	239151
30201248017	MULCH-C01	EPA 3050B	239046	EPA 6010C	239151
30201248018	MULCH-C02	EPA 3050B	239046	EPA 6010C	239151
30201248003	SC-25	EPA 7471B	239089	EPA 7471B	239142
30201248004	SC-26	EPA 7471B	239089	EPA 7471B	239142
30201248009	SC-27	EPA 7471B	239089	EPA 7471B	239142
30201248010	SC-28	EPA 7471B	239089	EPA 7471B	239142
30201248017	MULCH-C01	EPA 7471B	239089	EPA 7471B	239142
30201248018	MULCH-C02	EPA 7471B	239089	EPA 7471B	239142
30201248003	SC-25	EPA 3546	239099	EPA 8270D	239526
30201248004	SC-26	EPA 3546	239099	EPA 8270D	239526
30201248009	SC-27	EPA 3546	239099	EPA 8270D	239526
30201248010	SC-28	EPA 3546	239099	EPA 8270D	239526
30201248017	MULCH-C01	EPA 3546	239099	EPA 8270D	239526
30201248018	MULCH-C02	EPA 3546	239099	EPA 8270D	239526
30201248001	S-60	EPA 5035A	239510	EPA 8260C	239723
30201248002	S-61	EPA 5035A	239510	EPA 8260C	239723
30201248005	S-62	EPA 5035A	239510	EPA 8260C	239723
30201248006	S-63	EPA 5035A	239510	EPA 8260C	239723
30201248007	S-64	EPA 5035A	239510	EPA 8260C	239723
30201248008	S-65	EPA 5035A	239510	EPA 8260C	239723
30201248011	MULCH-01	EPA 5035A	239510	EPA 8260C	239723
30201248012	MULCH-02	EPA 5035A	239510	EPA 8260C	239723
30201248013	MULCH-03	EPA 5035A	239510	EPA 8260C	239723
30201248014	MULCH-04	EPA 5035A	239510	EPA 8260C	239723
30201248015	MULCH-05	EPA 5035A	239510	EPA 8260C	239723
30201248016	MULCH-06	EPA 5035A	239510	EPA 8260C	239723
30201248019	S-58	EPA 5035A	239510	EPA 8260C	239723
30201248020	S-59	EPA 5035A	239510	EPA 8260C	239723
30201248001	S-60	ASTM D2974-87	239440		
30201248002	S-61	ASTM D2974-87	239440		
30201248003	SC-25	ASTM D2974-87	239440		
30201248004	SC-26	ASTM D2974-87	239440		
30201248005	S-62	ASTM D2974-87	239440		
30201248006	S-63	ASTM D2974-87	239440		
30201248007	S-64	ASTM D2974-87	239440		
30201248008	S-65	ASTM D2974-87	239440		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 16110028
Pace Project No.: 30201248

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30201248009	**SC-27**	ASTM D2974-87	239440		
30201248010	**SC-28**	ASTM D2974-87	239440		
30201248011	**MULCH-01**	ASTM D2974-87	239440		
30201248012	**MULCH-02**	ASTM D2974-87	239440		
30201248013	**MULCH-03**	ASTM D2974-87	239440		
30201248014	**MULCH-04**	ASTM D2974-87	239440		
30201248015	**MULCH-05**	ASTM D2974-87	239440		
30201248016	**MULCH-06**	ASTM D2974-87	239440		
30201248017	**MULCH-C01**	ASTM D2974-87	239440		
30201248018	**MULCH-C02**	ASTM D2974-87	239440		
30201248019	**S-58**	ASTM D2974-87	239441		
30201248020	**S-59**	ASTM D2974-87	239441		
30201248003	**SC-25**	EPA 7196A	239006	EPA 7196A	239058
30201248004	**SC-26**	EPA 7196A	239006	EPA 7196A	239058
30201248009	**SC-27**	EPA 7196A	239006	EPA 7196A	239058
30201248010	**SC-28**	EPA 7196A	239006	EPA 7196A	239058
30201248017	**MULCH-C01**	EPA 7196A	239006	EPA 7196A	239058
30201248018	**MULCH-C02**	EPA 7196A	239006	EPA 7196A	239058
30201248003	**SC-25**	Trivalent Chromium Calculation	239571		
30201248004	**SC-26**	Trivalent Chromium Calculation	239571		
30201248009	**SC-27**	Trivalent Chromium Calculation	239571		
30201248010	**SC-28**	Trivalent Chromium Calculation	239571		
30201248017	**MULCH-C01**	Trivalent Chromium Calculation	239571		
30201248018	**MULCH-C02**	Trivalent Chromium Calculation	239571		
30201248003	**SC-25**	EPA 9012B	239451	EPA 9012B	239463
30201248004	**SC-26**	EPA 9012B	239451	EPA 9012B	239463
30201248009	**SC-27**	EPA 9012B	239451	EPA 9012B	239463
30201248010	**SC-28**	EPA 9012B	239451	EPA 9012B	239463
30201248017	**MULCH-C01**	EPA 9012B	239451	EPA 9012B	239463
30201248018	**MULCH-C02**	EPA 9012B	239451	EPA 9012B	239463

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REPORT OF LABORATORY ANALYSIS

PACE

WO#:30201248

30201248

CHAIN OF CUSTODY RECORD

PAGE 2 OF 2

Pace Analytical Services

2190 Technology Drive, Schenectady, NY 12308
Telephone (518) 346-4592 Fax (518) 381-6055
www.pacelabs.com

LRF # 16110028
(LAB USE ONLY)

DISPOSAL REQUIREMENTS: (To be filled in by Client)
- ○ RETURN TO CLIENT
- ● DISPOSAL BY RECEIVING LAB
- ○ ARCHIVAL BY RECEIVING LAB

Additional charges incurred for disposal (if hazardous) or archival.
Call for details.

CLIENT (REPORTS TO BE SENT TO):	PROJECT#/PROJECT NAME:
PACE	16110028
PROJECT MANAGER:	LOCATION (CITY/STATE) ADDRESS:
Nick Nicholas	NY
Project: 1368.001 CAT B	REQUIRED TURN AROUND TIME: 11/8/2016
Notes: soil samples for 8260 analysis not preserved per collection method 5035 guidance.	NAME OF COURIER (IF USED):

ENTER ANALYSIS AND METHOD NUMBER REQUESTED

PRESERVATIVE KEY: 0 - ICE; 1 - HCL; 2 - HNO3; 3 - H2SO4; 4 - NaOH; 5 - Zn. Acetate; 6 - MeOH; 7 - NaHSO4; 8 - Other (Na2SO3)

ELECTRONIC RESULTS: nicholas.nicholas@pacelabs.com; Nicole.Johnson@pacelabs.com

SAMPLE ID	DATE	TIME	MATRIX	GRAB/ COMP	LAB SAMPLE ID (LAB USE ONLY)	NUMBER OF CONTAINERS	VOC (8260)	SVOC (8270)	Cyanide	TAL METALS (6010)	Mercury (7471)	PEST (8081)	CR+3, CR+6	REMARKS:
S-60	10/28/16	9:37	S	GRAB	AT29600	1	X							001
S-61	10/28/16	9:38	S	GRAB	AT29601	1	X							002
SC-25	10/28/16	9:36	S	COMP	AT29602	2		X	X	X	X	X	X	003
SC-26	10/28/16	9:38	S	COMP	AT29603	2		X	X	X	X	X	X	004
S-62	10/28/16	9:40	S	GRAB	AT29604	1	X							005
S-63	10/28/16	9:41	S	GRAB	AT29605	1	X							006
S-64	10/28/16	9:42	S	GRAB	AT29606	1	X							007
S-65	10/28/16	9:43	S	GRAB	AT29607	1	X							008
SC-27	10/28/16	9:41	S	COMP	AT29608	2		X	X	X	X	X	X	009
SC-28	10/28/16	9:43	S	COMP	AT29609	2		X	X	X	X	X	X	010

AMBIENT OR (CHILLED): TEMP: 5.9 | COC TAPE: Y (N) | PROPERLY PRESERVED: (Y) N | OTHER NOTES: Data Package [LEVEL-4] EDD: EQUIS-DEC-DER

RECEIVED BROKEN OR LEAKING: Y (N) | COC DISCREPANCIES: Y (N) | RECVD W/I HOLDING TIMES: (Y) N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
SIGNATURE: J. Smith	SIGNATURE: VIA FED EX →	SIGNATURE: ~~SIGNATURE~~	SIGNATURE: Ryan Bing	SIGNATURE:	SIGNATURE:
PRINTED NAME: J. Smith	PRINTED NAME:	PRINTED NAME:	PRINTED NAME: Ryan Bing	PRINTED NAME:	PRINTED NAME:
COMPANY: PACE	COMPANY:	COMPANY:	COMPANY: Pace	COMPANY:	COMPANY:
DATE/TIME: 11/1/16 16:00	DATE/TIME:	DATE/TIME:	DATE/TIME: 11/2/16 0950	DATE/TIME:	DATE/TIME:

S:\LOGIN\MDLCOCS

PACE - PT 1/2 30201248

CHAIN OF CUSTODY RECORD

PAGE 1 OF 2

Pace Analytical Services

2190 Technology Drive, Schenectady, NY 12308
Telephone (518) 346-4592 Fax (518) 381-6055
www.pacelabs.com

LRF # 16110028
(LAB USE ONLY)

DISPOSAL REQUIREMENTS: (To be filled in by Client)
- ○ RETURN TO CLIENT
- ● DISPOSAL BY RECEIVING LAB
- ○ ARCHIVAL BY RECEIVING LAB

Additional charges incurred for disposal (if hazardous) or archival.
Call for details.

CLIENT (REPORTS TO BE SENT TO): **PACE**

PROJECT#/PROJECT NAME: **16110028**

LOCATION (CITY/STATE) ADDRESS: **NY**

PROJECT MANAGER: **Nick Nicholas**

REQUIRED TURN AROUND TIME: **11/8/2016**

Project: **1368.001 CAT B**

NAME OF COURIER (IF USED):

Notes: Soil samples for 8260 analysis not preserved via 5035 guidade.

ELECTRONIC RESULTS: nicholas.nicholas@pacelabs.com; Nicole.Johnson@pacelabs.com

ENTER ANALYSIS AND METHOD NUMBER REQUESTED

PRESERVATIVE KEY: 0 - ICE; 1 - HCL; 2 - HNO3; 3 - H2SO4; 4 - NaOH; 5 - Zn. Acetate; 6 - MeOH; 7 - NaHSO4; 8 - Other (Na2SO3)

SAMPLE ID	DATE	TIME	MATRIX	GRAB/ COMP	LAB SAMPLE ID (LAB USE ONLY)	NUMBER OF CONTAINERS	VOC (8260)	SVOC (8270)	Cyanide	TAL METALS (6010)	Mercury (7471)	PEST (8081)	CR+3, CR+6	REMARKS:
MULCH-01	10/28/16	9:05	SD	GRAB	AT29590	1	X							011
MULCH-02	10/28/16	9:10	SD	GRAB	AT29591	1	X							012
MULCH-03	10/28/16	9:15	SD	GRAB	AT29592	1	X							013
MULCH-04	10/28/16	9:20	SD	GRAB	AT29593	1	X							014
MULCH-05	10/28/16	9:25	SD	GRAB	AT29594	1	X							015
MULCH-06	10/28/16	9:30	SD	GRAB	AT29595	1	X							016
MULCH-C01	10/28/16	9:15	SD	COMP	AT29596	2		X	X	X	X	X	X	017
MULCH-C02	10/28/16	9:30	SD	COMP	AT29597	2		X	X	X	X	X	X	018
S-58	10/28/16	9:35	S	GRAB	AT29598	1	X							019
S-59	10/28/16	9:36	S	GRAB	AT29599	1	X							020

AMBIENT OR CHILLED: TEMP: 5.9 — COC TAPE: Y (N) — PROPERLY PRESERVED: (Y) N — OTHER NOTES: Data Package [LEVEL-4] EDD: EQUIS-DEC-DER

RECEIVED BROKEN OR LEAKING: Y (N) — COC DISCREPANCIES: Y (N) — RECVD W/I HOLDING TIMES: (Y) N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
SIGNATURE: [signature]	SIGNATURE: VIA FED EX 2	SIGNATURE:	SIGNATURE: [signature]	SIGNATURE:	SIGNATURE:
PRINTED NAME: N. Bittle	PRINTED NAME:	PRINTED NAME:	PRINTED NAME: Ryan Bing	PRINTED NAME:	PRINTED NAME:
COMPANY: PACE	COMPANY:	COMPANY:	COMPANY: Pace	COMPANY:	COMPANY:
DATE/TIME: 11/1/16 16:00	DATE/TIME:	DATE/TIME:	DATE/TIME: 11/2/16 0950	DATE/TIME:	DATE/TIME:

S:\LOGIN\MDLCOCS

Pace Analytical
www.pacelabs.com

New York Office
2190 Technology Dr.
Schenectady, NY 12308
(518) 346-4592

PACE-LI

CHAIN-OF-CUSTODY / Analytical Request Document

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

<16110028P2>

30201248

16_100282

Page: 2 of 2

Section A Required Client Information:

Company:	Barton and Loguidice DPC
Address:	10 Airline Drive, Suite 200
	Albany, NY 12205
Email To:	nshaffer@bartonandloguidice.com
Phone:	518-218-1801 Fax: 518-218-1805
Requested Due Date/TAT:	Standard

Section B Required Project Information:

Report To:	Andy Barber
Copy To:	Nathan Shaffer
Purchase Order No.:	
Project Name:	ALCO
Project Number:	1368.001.001

Section C Invoice Information:

Attention:	Accounts Payable
Company Name:	Barton and Loguidice, DPC
Address:	443 Electronics Parkway Liverpool NY, 13088
Pace Quote Reference:	00014909
Pace Project Manager:	Nick Nicholas
Pace Profile #:	

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

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER_____

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE	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	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: VOCs By 8260	SVOC By 8270	Herbicides, Pesticides	PCBs by 8260	Full Metals	Mercury, Cromium	Cyanide	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	S-58	SL	G			10/28	9:35		1	X (4oz)								x								AT29598
2	S-59	SL	G				9:36		1	X (4oz)								x								AT29599
3	S-60	SL	G				9:37		1	X (4oz)								x								AT29600
4	S-61	SL	G				9:38		1	X (4oz)								x								AT29601
5	SC-25	SL	C				9:31		3	X (2-8OZ 1-4OZ)																AT29602
6	SC-26	SL	C				9:38		3	X (2-8OZ 1-4OZ)									x	x	x	x	x	x		AT29603
7	S-62	SL	G				9:40		1	X (4oz)								x								AT29604
8	S-63	SL	G				9:41		1	X (4oz)								x								AT29605
9	S-64	SL	G				9:42		1	X (4oz)								x								AT29606
10	S-65	SL	G				9:43		1	X (4oz)								x								AT29607
11	SC-27	SL	C				9:41		3	X (2-8OZ 1-4OZ)									x	x	x	x	x	x		AT29608
12	SC-28	SL	C			↓	9:43		3	X (2-8OZ 1-4OZ)									x	x	x	x	x	x		AT29609

*DER-10 - Appendix 5 - Allowable Constituent Levels for Imported Fill or Soil Subdivision 5.4(e)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Standard Deliverables		10/28	11:30	PACE	10/28/16	11:30

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
12.5 (-0.3)	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nathan Shaffer

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 10/28/2016

e-File(ALLQ020rev.4,29Mar06)22Jun2005

Pace Analytical
www.pacelabs.com
New York Office
2190 Technology Dr.
Schenectady, NY 12308
(518) 346-4592

CHAIN-OF-CUSTODY / Analytical Request Document

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

<16110028P> 30201248

16_100281

Page: 1 of 2

Section A — Required Client Information:

Company:	Barton and Loguidice DPC
Address:	10 Airline Drive, Suite 200
	Albany, NY 12205
Email To:	nshaffer@bartonandloguidice.com
Phone:	518-218-1801 Fax: 518-218-1805
Requested Due Date/TAT:	Standard

Section B — Required Project Information:

Report To:	Andy Barber
Copy To:	Nathan Shaffer
Purchase Order No.:	
Project Name:	ALCO
Project Number:	1368.001.001

Section C — Invoice Information:

Attention:	Accounts Payable
Company Name:	Barton and Loguidice, DPC
Address:	443 Electronics Parkway Liverpool NY, 13088
Pace Quote Reference:	00014909
Pace Project Manager:	Nick Nicholas
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER____

Section D — Required Client Information

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): *VOCs By 8260	*SVOC By 8270	*Herbicides, Pesticides	*PCBs by 8260	*Full Metals	*Mercury, Chromium, *Cyanide	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	Mulch-01	SL	G			10/28	9:25		1	X (4oz)								x							AT29590
2	Mulch-02	SL	G			10/28	9:10		1	X (4oz)								x							AT29591
3	Mulch-03	SL	G			10/28	9:15		1	X (4oz)								x							AT29592
4	Mulch-04	SL	G			10/28	9:20		1	X (4oz)								x							AT29593
5	Mulch-05	SL	G			10/28	9:25		1	X (4oz)								x							AT29594
6	Mulch-06	SL	G			10/28	9:30		1	X (4oz)								x							AT29595
7	~~Mulch-07~~	SL	G						1	X (4oz)								x							
8	~~Mulch-C01~~	SL	C			10/27	9:15		2	X (2-8OZ)															AT29596
9	Mulch-C02	SL	C			10/28	9:30		3	X (2-8OZ 1-4OZ)								x	x	x	x	x	x		AT29597
10																									
11																									
12																									

*DER-10 - Appendix 5 - Allowable Constituent Levels for Imported Fill or Soil Subdivision 5.4(e)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Standard Deliverables		10/28	11:30	PACE	10/28/16	11:30

SAMPLE CONDITIONS

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: ~~Nathan Shaffer~~

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY): 10/28/2016

e-File(ALLQ020rev.4,29Mar06)22Jun2005

Sample Condition Upon Receipt

30201246

CLIENT NAME: BAR-ALB (R 10/31/16 BC)

PROJECT : ALCO

COURIER: FedEx ☐ UPS ☐ Client ☒ Pace ☐ Other ☐

TRACKING # N/A

CUSTODY SEAL PRESENT: Yes ☐ No ☒ INTACT: Yes ☐ No ☐ N/A ☒

PACKING MATERIAL: Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other ☐ ICE USED: Wet ☒ Blue ☐ None ☐

THERMOMETER USED: #164 ☐ IR Gun 03 ☒ #160239773 ☐ #160239773-PRB ☐ COOLER TEMPERATURE (°C): 12.5 (IR)

BIOLOGICAL TISSUE IS FROZEN: Yes ☐ No ☐ N/A ☒

COMMENTS: Temperature is Acceptable? ☒Yes ☐No

Chain of Custody Present:	☒Yes	☐No		1.
Chain of Custody Filled Out:	☒Yes	☐No		2.
Chain of Custody Relinquished:	☒Yes	☐No		3.
Sampler Name / Signature on COC:	☒Yes	☐No		4.
Samples Arrived within Hold Time:	☒Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No		6.
Rush Turn Around Time Requested:	☐Yes	☒No		7.
Sufficient Volume:	☒Yes	☐No		8.
Correct Containers Used:	☒Yes	☐No		9.
- Pace Containers Used:	☒Yes	☐No		
Containers Intact:	☒Yes	☐No		10.
Filtered volume received for Dissolved tests:	☐Yes	☐No	☒N/A	11.
Sample Labels match COC:	☒Yes	☐No		12.
- Includes date/time/ID/Analysis				
All containers needing preservation have been checked:	☐Yes	☐No	☒N/A	13. 50:1 samples for 8260 analysis not preserved per collection method 5035 guidance.
All containers needing preservation are in compliance with EPA recommendation:	☐Yes	☒No	☐N/A	Initial when completed: N/A Lot # of added preservative: N/A
- Exceptions that are not checked: TOC, VOA, Subcontract Analyses				
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	14.
Trip Blank Present:	☐Yes	☐No	☒N/A	15.
Trip Blank Custody Seals Present:	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot #: N/A				

Sample Receipt form filled in: _____

Line-Out (Includes Copying Shipping Documents and verifying sample pH): AA 11/1/16

Log In (Includes notifying PM of any discrepacies and documenting in LIMS): AJB 11/1/16

~~Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook)~~: AA 11/1/16

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace NY Project # 30201248

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 7062 9875 6092

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Thermometer Used 7 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 6.1 °C Correction Factor: -0.2 °C Final Temp: 5.9 °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: RTB 11/2/16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:	X			8.
Sufficient Volume:	X			9.
Correct Containers Used: -Pace Containers Used:	X X			10.
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.			X	13.
All containers needing preservation are found to be in compliance with EPA recommendation.			X	
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed 11/2/16 RTB; Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:			X	15.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr			X	Initial when completed: Date:

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

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)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Office of Environmental Quality, Region 4
1130 North Westcott Road, Schenectady, NY 12306-2014
P: (518) 357-2045 | F: (518) 357-2398
www.dec.ny.gov

September 13, 2016

Maxon ALCO Holdings, LLC
Attn: David Buicko
695 Rotterdam Industrial Park
Schenectady, NY 12306

Barton & Loguidice, P.C.
Attn: Andrew Barber
10 Airline Drive Suite 200
Albany, NY 12205

Re: ALCO-Maxon Site – Parcel A, BCP Site No. C447042, Schenectady
ALCO-Maxon Site – Parcel B, BCP Site No. C447043, Schenectady
Cornell University Structural Soil Sampling Results

Dear Mr. Buicko and Mr. Barber:

The New York State Department of Environmental Conservation (Department) has reviewed the 9/6/16 submittal of information and analytical results (enclosed) of Cornell University Structural Soil from Leitz Trucking that included the request to import up to 400 cubic yards to the ALCO-Maxon Site – Parcels A and B. The sampling was done on 8/22/16 in accordance with DER-10 Technical Guidance for Site Investigation and Remediation (Chapter 5).

This structural soil analytical results meets the restricted residential, the Protection of Groundwater and the Protection of Ecological Resources Soil Cleanup Objectives. The Department hereby approves the transport and placement of this structural soil for use with no restrictions at ALCO-Maxon Site - Parcels A and B. The material may be stockpiled in accordance with the Soil Management Plan (2011) and the Storm-water Pollution Prevention Plan (2011).

I may be reached at (518) 357-2390 or by email at john.strang@dec.ny.gov with any questions.

Sincerely,

John R Strang

John R. Strang, PE.
Environmental Engineer 2
Division of Environmental Remediation
Region 4

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Enclosure

ec: T. Owens, Galesi
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