



1941 Reymet Road • Richmond, Virginia 23237 • Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 17K0327

Client Name: APEX Companies, LLC. -Manassas
8854 Rixlew Lane
Manassas, VA 20109

Date Received: November 9, 2017 13:50
Date Issued: November 20, 2017 15:20
Project Number: [none]

Submitted To: William Thomas

Purchase Order:

Client Site I.D.: Moncure ES

Enclosed are the results of analyses for samples received by the laboratory on 11/09/2017 13:50. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads "Ted Soyars".

Ted Soyars
Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

This report shall not be reproduced except in full without the expressed and written approval of an authorized representative of Air Water & Soil Laboratories, Inc.





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8854 Rixlew Lane
Manassas VA, 20109

Submitted To: William Thomas Project Number: [none]
Client Site I.D.: Moncure ES Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 17K0327

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MCE3-Field Blank	17K0327-01	Drinking Water	11/08/2017 15:21	11/09/2017 13:50
MCE3-EXT-ADDL	17K0327-02	Drinking Water	11/08/2017 15:19	11/09/2017 13:50
MCE3-EXT-ENT-8L	17K0327-03	Drinking Water	11/08/2017 15:15	11/09/2017 13:50
MCE3-EXT-ADDR	17K0327-04	Drinking Water	11/08/2017 15:17	11/09/2017 13:50



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Submitted To:	William Thomas	Project Number:	[none]
Client Site I.D.:	Moncure ES	Purchase Order:	

Laboratory Order ID: 17K0327

Analytical Results

Sample I.D. MCE3-Field Blank	Laboratory Sample ID: 17K0327-01
Grab Date/Time: 11/08/2017 15:21	

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Metals (Total) by EPA 200 Series Methods

Lead	01	EPA200.8 R5.4	<1.00 ug/L	1.00	1	11/14/17 15:00	11/15/17 18:02	BG
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Client Site I.D.:	Moncure ES	Purchase Order:	

Laboratory Order ID: 17K0327

Analytical Results

Sample I.D. MCE3-EXT-ADDL	Laboratory Sample ID: 17K0327-02
Grab Date/Time: 11/08/2017 15:19	

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Metals (Total) by EPA 200 Series Methods

Lead	02	EPA200.8 R5.4	21.7 ug/L	1.00	1	11/14/17 15:00	11/15/17 18:13	BG
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Submitted To:	William Thomas	Project Number:	[none]
Client Site I.D.:	Moncure ES	Purchase Order:	

Laboratory Order ID: 17K0327

Analytical Results

Sample I.D. MCE3-EXT-ENT-8L	Laboratory Sample ID: 17K0327-03
Grab Date/Time: 11/08/2017 15:15	

Parameter	Samp ID	Method	Result	Reporting Qual	Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Metals (Total) by EPA 200 Series Methods

Lead	03	EPA200.8 R5.4	<1.00 ug/L	1.00	1	11/14/17 15:00	11/15/17 18:17	BG
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Submitted To:	William Thomas	Project Number:	[none]
Client Site I.D.:	Moncure ES	Purchase Order:	

Laboratory Order ID: 17K0327

Analytical Results

Sample I.D. MCE3-EXT-ADDR	Laboratory Sample ID: 17K0327-04
Grab Date/Time: 11/08/2017 15:17	

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Metals (Total) by EPA 200 Series Methods

Lead	04	EPA200.8 R5.4	2.79 ug/L	1.00	1	11/14/17 15:00	11/15/17 18:20	BG
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Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 200 Series Methods		Preparation Method: EPA200.8 R5.4			
17K0327-01	50.0 mL / 50.0 mL	EPA200.8 R5.4	BAK0401	SAK0500	AK70097
17K0327-02	50.0 mL / 50.0 mL	EPA200.8 R5.4	BAK0401	SAK0500	AK70097
17K0327-03	50.0 mL / 50.0 mL	EPA200.8 R5.4	BAK0401	SAK0500	AK70097
17K0327-04	50.0 mL / 50.0 mL	EPA200.8 R5.4	BAK0401	SAK0500	AK70097



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Metals (Total) by EPA 200 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BAK0401 - EPA200.8 R5.4

Blank (BAK0401-BLK1)				Prepared: 11/14/2017 Analyzed: 11/15/2017						
Lead	<1.00 ug/L	1.00	ug/L							
LCS (BAK0401-BS1)				Prepared: 11/14/2017 Analyzed: 11/15/2017						
Lead	48.4 ug/L	1.00	ug/L	50.0 ug/L		96.8	85-115			
LCS Dup (BAK0401-BSD1)				Prepared: 11/14/2017 Analyzed: 11/15/2017						
Lead	47.4 ug/L	1.00	ug/L	50.0 ug/L		94.8	85-115	2.10	20	
Matrix Spike (BAK0401-MS1)				Source: 17K0326-04 Prepared: 11/14/2017 Analyzed: 11/15/2017						
Lead	47.9 ug/L	1.00	ug/L	50.0	<1.00 ug/L	94.7	70-130			
Matrix Spike (BAK0401-MS2)				Source: 17K0328-04 Prepared: 11/14/2017 Analyzed: 11/15/2017						
Lead	49.8 ug/L	1.00	ug/L	50.0	1.24 ug/L	97.1	70-130			
Matrix Spike Dup (BAK0401-MSD1)				Source: 17K0326-04 Prepared: 11/14/2017 Analyzed: 11/15/2017						
Lead	48.1 ug/L	1.00	ug/L	50.0	<1.00 ug/L	95.3	70-130	0.595	20	
Matrix Spike Dup (BAK0401-MSD2)				Source: 17K0328-04 Prepared: 11/14/2017 Analyzed: 11/15/2017						
Lead	50.2 ug/L	1.00	ug/L	50.0	1.24 ug/L	97.9	70-130	0.833	20	



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Client Site I.D.:	Moncure ES	Purchase Order:	

Certified Analyses included in this Report

Analyte		Certifications	
<i>EPA200.8 R5.4 in Potable Water</i>			
Lead		VELAP	
Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2017
NC	North Carolina DENR	495	12/31/2017
VELAP	NELAC-Virginia Certificate #9439	460021	06/14/2018
WVDEP	West Virginia DEP	350	11/30/2017



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Summary of Data Qualifiers

RPD Relative Percent Difference
Qual Qualifiers
-RE Denotes sample was re-analyzed
D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.
TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library .
A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.
PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

CHAIN OF CUSTODY

PAGE 1 OF 1

COMPANY NAME: <u>Apex Companies, LLC</u>	INVOICE TO: <u>Same</u>	PROJECT NAME/Quote #: <u>SCPS Lead DW</u>
CONTACT: <u>William Thomas</u>	INVOICE CONTACT:	SITE NAME: <u>Moncure ES</u>
ADDRESS: <u>8514 Rixlew Lane, Manassas, VA 20109</u>	INVOICE ADDRESS:	PROJECT NUMBER:
PHONE #: <u>703.396.6730</u>	INVOICE PHONE #:	P.O. #:
FAX #: <u>703.396.6748</u>	EMAIL: <u>wthomas@apexcos.com</u>	Pretreatment Program:

Is sample for compliance reporting? YES **NO** Is sample from a chlorinated supply? **YES** NO PWS I.D. #:

SAMPLER NAME (PRINT): Toni Sander SAMPLER SIGNATURE: [Signature] Turn Around Time: Circle: **10** 5 Days or ___ Day(s)

Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other

CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	ANALYSIS / (PRESERVATIVE)								COMMENTS	
1) MCE3 - Field Blank	X					11/8/17	1521	1521	DW	1	X									
2) MCE3 - EXT - ADDL	X					11/8/17	1519	1519	DW	1	X									
3) MCE3 - EXT - ENT - 8L	X					11/8/17	1515	1515	DW	1	X									
4) MCE3 - EXT - ADDR	X					11/8/17	1517	1517	DW	1	X									
5)																				
6)																				
7)																				
8)																				
9)																				
10)																				

Preservative Codes: N=Nitric Acid
 C=Hydrochloric Acid S=Sulfuric Acid
 H=Sodium Hydroxide A=Ascorbic Acid
 Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol

PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)

Pb 200.8

Sealed
 DN Ice

RELINQUISHED: <u>[Signature]</u>	DATE / TIME: <u>11/9/17 9:08</u>	RECEIVED: <u>B Mob</u>	DATE / TIME: <u>11/9/17 9:08</u>	QC Data Package	LAB USE ONLY	COOLER TEMP: <u>18.5 °C</u>
RELINQUISHED: <u>[Signature]</u>	DATE / TIME: <u>11/9/17 1:50</u>	RECEIVED: <u>A Doney</u>	DATE / TIME: <u>09 NOV 2017 1350</u>	Level III <input type="checkbox"/>	APEX-Manassas 17K0327 SCPS - Moncure Elementary Schoc Recd: 11/09/2017 Due: 11/27/2017	
RELINQUISHED:	DATE / TIME:	RECEIVED:	DATE / TIME:	Level IV <input type="checkbox"/>		



Metals were received with pH= 5&6.
 HNO3 was added at 19.00 on 9 Nov 2017
 by Shannon Long in the Log-In to bring
 pH=<2.

Sample Preservation Log

Sample Preservation Log
 Form #: F1301
 Rev # 7.0
 Effective: Feb 21, 2017
 Page 1 of 1

Order ID 17K0327

Date Performed: 9 Nov 2017

Analyst Performing Check: TWJ

Sample ID	Container ID	Metals			Cyanide			Sulfide			Ammonia			TKN			Phos, Tot			NO3+NO2			DRO			Pesticide (8081/608/508)			SVOC (525.2/8270/625)			CrVI*		
		pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	Res.Cl as Received		Res.Cl P/A (if adjust.)	Res.Cl as Received		Res.Cl P/A (if adjust.)	pH as Received		Adjusted final pH	pH as Received		Final pH (if adjust.)
		< 2	Other		> 12	Other		> 9	Other		< 2	Other		< 2	Other		< 2	Other		< 2	Other		Present	Absent		Present	Absent		pH as Received		< 2	Other		
01	A	5	<2																															
02	A	6	<2																															
03	A	6	<2																															
04	A	6	<2																															

NaOH ID: _____ HNO3 ID: 7501699 CrVI preserved date/time: _____ Analyst Initials: _____
 H2SO4 ID: _____ Na2S2O3 ID: _____ *pH must be adjusted between 9.3 - 9.7 Buffer Sol'n ID: _____
 HCL ID: _____ Na2SO3 ID: _____ 1N NaOH ID: _____ 5N NaOH: _____



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Submitted To:	William Thomas	Project Number:	[none]
Client Site I.D.:	Moncure ES	Purchase Order:	

Sample Conditions Checklist

Samples Received at:	18.50°C
How were samples received?	Courier
Were Custody Seals used? If so, were they received intact?	Yes
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits? (above freezing to 6°C) or received on ice and recently taken?	No
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	No
Are all volatile organic and TOX containers free of headspace?	NA
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	NA
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis.	Yes

Work Order Comments