

Lancaster Laboratories Environmental

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ANALYTICAL RESULTS

Prepared by: Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for: WC Environmental, LLC
1085C Andrew Drive
West Chester PA 19830

December 01, 2015

Project: White Clay Creek

Submittal Date: 11/20/2015
Group Number: 1611340
PO Number: 11-19-15
State of Sample Origin: PA

Client Sample Description	Lancaster Labs #	Collected
WCC @ Little league field Grab Surface Water White Clay Creek	8145140	11/19/2015 13:54
WCC @ Rosehill Ave by bridge Grab Surface Water White Clay Creek	8145141	11/19/2015 13:59
WCC @ Lake Rd/Balt. Pike Grab Surface Water White Clay Creek	8145142	11/19/2015 14:05

METHODOLOGY

The specified methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

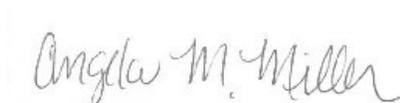
Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices.
Our scopes of accreditation can be viewed at

<http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/ce>

ELECTRONIC COPY TO WC Environmental, LLC

Attn: Russ Phifer

Respectfully Submitted,



Angela M. Miller
Specialist

(717) 556-7260

WC Environmental, LLC
 Project: White Clay Creek
 SDG:

Report Date: 12/1/2015 14:10
 Submit Date: 11/20/2015 18:43

Analysis Name	Units	8145140		8145141		8145142	
		WCC @ Little league field		WCC @ Rosehill Ave by bridge		WCC @ Lake Rd/Balt. Pike	
		Result	MDL	Result	MDL	Result	MDL
Nitrate Nitrogen	mg/l	1.1	0.25	1.2	0.25	1.4	0.25
Sulfate	mg/l	8.5	1.5	8.0	1.5	57.4	1.5
Total Phosphorus as P (water)	mg/l	0.12	0.050	0.096 J	0.050	0.32	0.050
Dissolved Organic Carbon	mg/l	7.2	0.50	5.3	0.50	8.0	0.50
Biochemical Oxygen Demand	mg/l	11.1	6.0	8.7	6.0	6.8	6.0

CAT No.	Analysis Name	Method	Trial ID	Batch	Analysis Date/Time	Analyst	Dilution
8145140 WCC @ Little league field Grab Surface Water							
00368	Nitrate Nitrogen	EPA 300.0	1	15325667901A	11/21/15 1041	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15325667901A	11/21/15 1041	Drew M Gerhart	5
00227	Total Phosphorus as P (water)	EPA 365.1	1	15328109101A	11/25/15 1451	Venia B McFadden	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	15334237302B	11/30/15 1514	Joseph E McKenzie	1
08263	Total Phos as P Prep (water)	EPA 365.1	1	15328109101A	11/24/15 0300	Sandra J Miller	1
00235	Biochemical Oxygen Demand	SM 5210 B-2001	1	15325023501A	11/21/15 0901	Hannah M Royer	1
8145141 WCC @ Rosehill Ave by bridge Grab Surface Water							
00368	Nitrate Nitrogen	EPA 300.0	1	15325667901A	11/21/15 1056	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15325667901A	11/21/15 1056	Drew M Gerhart	5
00227	Total Phosphorus as P (water)	EPA 365.1	1	15328109101A	11/25/15 1452	Venia B McFadden	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	15334237302B	11/30/15 1527	Joseph E McKenzie	1
08263	Total Phos as P Prep (water)	EPA 365.1	1	15328109101A	11/24/15 0300	Sandra J Miller	1
00235	Biochemical Oxygen Demand	SM 5210 B-2001	1	15325023501A	11/21/15 0901	Hannah M Royer	1
8145142 WCC @ Lake Rd/Balt. Pike Grab Surface Water							
00368	Nitrate Nitrogen	EPA 300.0	1	15325667901A	11/21/15 1110	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15325667901A	11/21/15 1110	Drew M Gerhart	5
00227	Total Phosphorus as P (water)	EPA 365.1	1	15328109101A	11/25/15 1454	Venia B McFadden	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	15334237302B	11/30/15 1541	Joseph E McKenzie	1
08263	Total Phos as P Prep (water)	EPA 365.1	1	15328109101A	11/24/15 0300	Sandra J Miller	1
00235	Biochemical Oxygen Demand	SM 5210 B-2001	1	15325023501A	11/21/15 0901	Hannah M Royer	1

Client Name: WC Environmental, LLC

Group Number: 1611340

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 15325667901A		Sample number(s): 8145140-8145142						
Nitrate Nitrogen	N.D.	0.050	mg/l	96		90-110		
Sulfate	N.D.	0.30	mg/l	97		90-110		
Batch number: 15328109101A		Sample number(s): 8145140-8145142						
Total Phosphorus as P (water)	N.D.	0.050	mg/l	103		90-110		
Batch number: 15334237302B		Sample number(s): 8145140-8145142						
Dissolved Organic Carbon	N.D.	0.50	mg/l	101		86-114		
Batch number: 15325023501A		Sample number(s): 8145140-8145142						
Biochemical Oxygen Demand				95	93	85-115	2	8

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
Batch number: 15325667901A		Sample number(s): 8145140-8145142 UNSPK: P145189 BKG: P145189							
Nitrate Nitrogen	92		90-110			N.D.	N.D.	0 (1)	15
Sulfate	95		90-110			8.0	8.0	0	15
Batch number: 15328109101A		Sample number(s): 8145140-8145142 UNSPK: P141532 BKG: P141532							
Total Phosphorus as P (water)	101		90-110			N.D.	N.D.	0 (1)	4
Batch number: 15334237302B		Sample number(s): 8145140-8145142 UNSPK: P124581 BKG: P124581							
Dissolved Organic Carbon	109		86-114			1.4	1.2	21* (1)	2
Batch number: 15325023501A		Sample number(s): 8145140-8145142 UNSPK: P144609 BKG: P144608							
* Outside of specification									
(1) The result for one or both determinations was less than five times the LOQ.									
(2) The unspiked result was more than four times the spike added.									
Biochemical Oxygen Demand	67*	76*	85-115	13*	8	25.3	25.0	1 (1)	15

QC Comment

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

8145140 WCC @ Little league field Grab Surface Water

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

8145141 WCC @ Rosehill Ave by bridge Grab Surface Water

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

8145142 WCC @ Lake Rd/Balt. Pike Grab Surface Water

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.

Analysis Name	Units	Method	Cas Number	8145140		8145141		8145142	
				WCC @ Little league field	Result	MDL	WCC @ Rosehill Ave by br	Result	MDL
Nitrate Nitrogen	mg/l	EPA 300.0	14797-55-8	1.1	0.25	1.2	0.25	1.4	0.25
Sulfate	mg/l	EPA 300.0	14808-79-8	8.5	1.5	8.0	1.5	57.4	1.5
Total Phosphorus as P (water)	mg/l	EPA 365.1	7723-14-0	0.12	0.050	0.096 J	0.050	0.32	0.050
Dissolved Organic Carbon	mg/l	SM 5310 C-2000	n.a.	7.2	0.50	5.3	0.50	8.0	0.50
Biochemical Oxygen Demand	mg/l	SM 5210 B-2001	n.a.	11.1	6.0	8.7	6.0	6.8	6.0