



December 1, 2016

Maria Bebenek
Manager, Clean Water Program
DEP, SCRO
909 Elmerton Avenue
Harrisburg, Pa 17110

RE: Monthly Report, Site-Specific Study Plan, **November 2016**

Dear Ms. Bebenek;

In accordance with Section 3.e of the August 21, 2015 Consent Order and Agreement, the following is the November 2016 monthly report for the Site-Specific Methylmercury Water Quality Criterion Stream Study Plan (the Plan).

Activities Accomplished:

- Water quality samples were collected on November 9, 2016. Samples were collected at stream stations RR-1 (identified in figure 3-1 of the Plan), Rambo-Down (located in the mixed zone below NPDES-01), EC-2 (identified in figure 3-2 of Plan) and Ebaughs-Down (located in the mixed zone below NPDES-02). Samples were also collected from the discharges from the remediation systems at NPDES-01 and NPDES-02.
- The NPDES-01 and NPDES-02 samples were sent to Geochemical Testing.
- Stream samples RR-1, Rambo-Down, EC-2 and Ebaughs-Down were sent to Brooks Applied Laboratory.

Results Received:

- Attached are the analytical results as reported by Brooks Applied Laboratory of Composite Fish Samples from the October 18, 2016. Samples were collect at stream stations RR-1 and EC-2.
- Attached are the analytical results as reported by Brooks Applied Laboratory for stream samples collected on October 18, 2016. Included are results from RR-1, Rambo-Down, EC-2 and Ebaughs-Down.
- Attached are the analytical results as reported by Brooks Applied Laboratory for mercury samples collected on October 18, 2016 from NPDES-01 and NPDES-02. Methylmercury was mistakenly selected on the chain-of-custody for NPDES-02 instead of total mercury. Total mercury was analyzed after the error was identified. The results for methylmercury at NPDES-02 are included with this report but will not be included in future analysis.
- Attached are the analytical results as reported by Geochemical Testing from the November 9, 2016 samples for NPDES-01 and NPDES-02.

- Stream discharge measurements were taken on November 9, 2016 in the area where stream samples and fish tissue samples are collected at RR-1 and EC-2. The following are the results.

- RR-1:

Measurement 1: 1.778 ft³/sec

Measurement 3: 1.775 ft³/sec

Average*: 1.776 ft³/sec

*Measurement 2 was a significant outlier at 5.197 ft³/sec and not used in calculating the average discharge.

- EC-2:

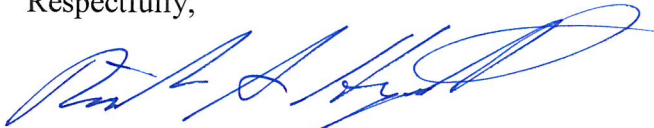
Measurement 1: 2.899 ft³/sec

Measurement 2: 3.064 ft³/sec

Average: 2.981 ft³/sec

Feel free to contact me if you have any questions or comments on the information provided in this monthly report.

Respectfully,



Richard A. Hazenstab, P.G.

Coordinator

Operations and Environmental Programs

cc: D. Vollero; D. Jasitt; J. Beuschlein; J. Collins

Attached: Brooks Applied Laboratory analysis for fish tissues
Brooks Applied Laboratory analysis for stream samples
Geochemical Testing analysis for NPDES-01
Geochemical Testing analysis for NPDES-02



Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
EC-02-AME-Comp1										
1643045-08	Hg	Biota	wet	76.8		3.21	8.03	ng/g	B162705	1601288
EC-02-AME-Comp2										
1643045-09	Hg	Biota	wet	87.7		3.15	7.87	ng/g	B162705	1601288
EC-02-AME-Comp3										
1643045-10	Hg	Biota	wet	64.8		3.11	7.78	ng/g	B162705	1601288
EC-02-BNT-Comp1										
1643045-04	Hg	Biota	wet	45.2		3.06	7.64	ng/g	B162705	1601288
EC-02-BNT-Comp2										
1643045-05	Hg	Biota	wet	3.27		0.30	0.76	ng/g	B162705	1601288
EC-02-BNT-Comp3										
1643045-07	Hg	Biota	wet	55.2		2.92	7.30	ng/g	B162705	1601288
RR-01-BNT-Comp1										
1643045-01	Hg	Biota	wet	60.7		3.12	7.81	ng/g	B162705	1601283
RR-01-BNT-Comp2										
1643045-02	Hg	Biota	wet	59.9		3.11	7.79	ng/g	B162705	1601283
RR-01-BNT-Comp3										
1643045-03	Hg	Biota	wet	45.3		3.04	7.59	ng/g	B162705	1601283



Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
Ebaughs-Down										
1643031-09	Hg	Water	TR	171		0.10	0.40	ng/L	B162694	1601229
1643031-10	MeHg	Water	D	≤ 0.019	U	0.019	0.049	ng/L	B162695	1601224
EC-02										
1643031-07	Hg	Water	TR	0.91		0.10	0.40	ng/L	B162694	1601229
1643031-08	MeHg	Water	D	≤ 0.020	U	0.020	0.049	ng/L	B162695	1601224
EQBLK-01										
1643031-13	Hg	Water	TR	0.11	B	0.10	0.40	ng/L	B162694	1601229
EQBLK-02										
1643031-14	MeHg	Water	D	≤ 0.020	U	0.020	0.050	ng/L	B162695	1601224
NPDES-01										
1643031-11	Hg	Water	TR	215		0.10	0.40	ng/L	B162694	1601229
NPDES-02										
1643031-12	Hg	Water	TR	177		0.10	0.40	ng/L	B162912	1601329
1643031-12	MeHg	Water	TR	0.043	B	0.020	0.051	ng/L	B162695	1601224
Rambo-Down										
1643031-05	Hg	Water	TR	160		0.10	0.40	ng/L	B162694	1601229
1643031-06	MeHg	Water	D	0.215		0.020	0.050	ng/L	B162695	1601224
RR-01										
1643031-01	Hg	Water	TR	0.66		0.10	0.40	ng/L	B162694	1601229
1643031-02	MeHg	Water	D	≤ 0.020	U	0.020	0.050	ng/L	B162695	1601224
RR-01-Dup										
1643031-03	Hg	Water	TR	0.68		0.10	0.40	ng/L	B162694	1601229
1643031-04	MeHg	Water	D	≤ 0.020	U	0.020	0.050	ng/L	B162695	1601224

Laboratory Results



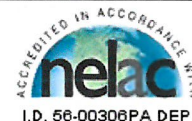
**GEOCHEMICAL
TESTING**
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset PA 15501

814-443-1671
814-445-6666
FAX:814-445-6729

Client:	YORK COUNTY SWA	Client Sample ID:	NPDES-1
Lab Order:	G1611633		
Project:	York 600 M	Sampled By:	Client
Lab ID:	G1611633-001	Collection Date:	11/09/2016 12:45
Matrix:	Aqueous	Received Date:	11/10/2016 10:34

Analyses	Result	QL	Q	Units	DF	Date Analyzed
Total Metals		EPA 245.7				Analyst: SLY
Mercury	329	20.0		ng/L	10	11/15/2016 11:34
Inorganic Metals		EPA 200.8				Analyst: RLR
Antimony	< 2.0	2.0		µg/L	1	11/18/2016 10:24
Cadmium	< 0.2	0.2		µg/L	1	11/18/2016 10:24
Copper	< 4.0	4.0		µg/L	1	11/18/2016 10:24
Lead	< 1.0	1.0		µg/L	1	11/18/2016 10:24
Silver	< 0.4	0.4		µg/L	1	11/18/2016 10:24
Volatile Organic Compounds		EPA 624				Analyst: SJM
1,1,1-Trichloroethane	< 0.5	0.5		µg/L	1	11/10/2016 14:23
1,1-Dichloroethane	< 0.5	0.5		µg/L	1	11/10/2016 14:23
1,1-Dichloroethene	< 0.5	0.5		µg/L	1	11/10/2016 14:23
Chloroethane	< 0.5	0.5		µg/L	1	11/10/2016 14:23
cis-1,2-Dichloroethene	< 0.5	0.5		µg/L	1	11/10/2016 14:23
Dichlorodifluoromethane	< 0.5	0.5		µg/L	1	11/10/2016 14:23
Methylene Chloride	< 0.5	0.5		µg/L	1	11/10/2016 14:23
Tetrachloroethene	< 0.5	0.5		µg/L	1	11/10/2016 14:23
Tetrahydrofuran	1.3	1.0		µg/L	1	11/10/2016 14:23
Trichloroethene	< 0.5	0.5		µg/L	1	11/10/2016 14:23
Trichlorofluoromethane	< 0.5	0.5		µg/L	1	11/10/2016 14:23
Vinyl Chloride	< 0.5	0.5		µg/L	1	11/10/2016 14:23
Surr: Surr: 1,2-Dichloroethane-d4	92.6	80-120		%REC	1	11/10/2016 14:23
Surr: Surr: 4-Bromofluorobenzene	98.1	80-120		%REC	1	11/10/2016 14:23
Surr: Surr: Toluene-d8	97.7	80-120		%REC	1	11/10/2016 14:23
pH by SM 4500 H+B		SM 4500-H+ B				Analyst: AM
Lab pH	8.07		H	S.U.	1	11/10/2016 14:12



Laboratory Results



**GEOCHEMICAL
TESTING**
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset PA 15501

814-443-1671
814-445-6666
FAX:814-445-6729

Client:	YORK COUNTY SWA	Client Sample ID:	NPDES-2
Lab Order:	G1611634		
Project:	York 600 M	Sampled By:	Client
Lab ID:	G1611634-001	Collection Date:	11/09/2016 14:00
Matrix:	Aqueous	Received Date:	11/10/2016 10:38

Analyses	Result	QL	Q	Units	DF	Date Analyzed
Total Metals						
		EPA 245.7				Analyst: SLY
Mercury	303	10		ng/L	5	11/23/2016 10:55
Inorganic Metals						
		EPA 200.8				Analyst: RLR
Antimony	< 2.0	2.0		µg/L	1	11/22/2016 08:26
Cadmium	< 0.2	0.2		µg/L	1	11/21/2016 12:06
Copper	< 4.0	4.0		µg/L	1	11/21/2016 12:06
Lead	< 1.0	1.0		µg/L	1	11/21/2016 12:06
Silver	< 0.4	0.4		µg/L	1	11/21/2016 12:06
Volatile Organic Compounds						
		EPA 624				Analyst: SJM
1,1,1-Trichloroethane	< 0.5	0.5		µg/L	1	11/10/2016 15:11
1,1-Dichloroethane	< 0.5	0.5		µg/L	1	11/10/2016 15:11
1,1-Dichloroethene	< 0.5	0.5		µg/L	1	11/10/2016 15:11
Chloroethane	< 0.5	0.5		µg/L	1	11/10/2016 15:11
cis-1,2-Dichloroethene	< 0.5	0.5		µg/L	1	11/10/2016 15:11
Dichlorodifluoromethane	< 0.5	0.5		µg/L	1	11/10/2016 15:11
Methylene Chloride	< 0.5	0.5		µg/L	1	11/10/2016 15:11
Tetrachloroethene	< 0.5	0.5		µg/L	1	11/10/2016 15:11
Tetrahydrofuran	< 1.0	1.0		µg/L	1	11/10/2016 15:11
Trichloroethene	< 0.5	0.5		µg/L	1	11/10/2016 15:11
Trichlorofluoromethane	< 0.5	0.5		µg/L	1	11/10/2016 15:11
Vinyl Chloride	< 0.5	0.5		µg/L	1	11/10/2016 15:11
Surr: Surr: 1,2-Dichloroethane-d4	92.3	80-120		%REC	1	11/10/2016 15:11
Surr: Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	11/10/2016 15:11
Surr: Surr: Toluene-d8	98.8	80-120		%REC	1	11/10/2016 15:11
pH by SM 4500 H+B						
		SM 4500-H+ B				Analyst: AM
Lab pH	7.90		H	S.U.	1	11/10/2016 14:14

