



November 16, 2016

Mr. Kevin Gregory
Director, Consultant Management Bureau
NYS Dept. of Transportation
POD # 33
50 Wolf Road
Albany, NY 12232

Attention: Mr. Tony Palumbo

**Re: PIN HMFR.00.302
Stewart International Airport | Site 336088
Newburgh, Orange County, New York
June and July 2016 PFCs Sampling
October 14, 2016 Letter Report Addendum 1**

Dear Mr. Palumbo:

This addendum is being prepared to cite revisions to the Stewart International Airport PFCs Sampling letter report dated October 14, 2016. Based on email correspondence from the New York State Department of Environmental Conservation (NYSDEC) dated October 26, 2016, the NYSDEC has opted to utilize a residential soil screening level developed by the United States Environmental Protection Agency (EPA) Region 2 for a site in upstate New York (EPA, July 2016) for comparison of soil sampling results for the Project. The soil screening level developed by EPA Region 2 of 1,000,000 nanogram per kilogram (ng/kg) for the sum of PFOA and PFOS takes the place of the previously cited soil screening levels established by EPA Region 4 (EPA, November 2009) of 16,000,000 ng/kg for PFOA and 6,000,000 ng/kg for PFOS. These values appear in the Soil Results section on page 4 of the October 14, 2016 report text and are also found on Figure 2 Soil Boring Sampling Results and Table 1 PFCs in Soil. The revised figure and table are attached.

Note that all soil sampling results are below the respective EPA Region 4 soil screening levels. However, one soil sampling result, collected from boring SB008 at 0.5 ft (1,845,680 ng/kg), exceeds the EPA Region 2 soil screening level of 1,000,000 ng/kg for the sum of PFOA and PFOS.



If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Melissa E. LaMacchia". The signature is written in a cursive, flowing style.

Melissa E. LaMacchia
Associate | Project Manager

cc: J. Bass, NYSDOT

Attachments



TABLE 1 - PFCs IN SOIL
STEWART INTERNATIONAL AIRPORT SOIL GEOPROBES

Location ID Date Depth (ft) Unit	EPAR2 Residential Soil (ng/kg)	SB001 6/29/2016 0.5 ng/kg	SB001 6/29/2016 13 ng/kg	SB001 6/29/2016 18 ng/kg	SB002 6/29/2016 0.5 ng/kg	SB002 6/30/2016 4.5 ng/kg	SB002 6/30/2016 12 ng/kg	SB003 6/29/2016 0.5 ng/kg
Analyte								
Perfluorobutane Sulfonate (PFBS)	NS	510 J	820 U	830 U	830 U	800 U	780 U	950 U
Perfluoroheptanoic Acid (PFHpA)	NS	1940	820 U	830 U	360 J	800 U	780 U	900 J
Perfluorohexane Sulfonate (PFHxS)	NS	17300	820 U	830 U	910 J	800 U	780 U	990
Perfluorononanoic Acid (PFNA)	NS	2720	820 U	830 U	440 J	800 U	780 U	3,640
Perfluorooctane Sulfonic Acid (PFOS)	NS	592,000 D	820 U	830 U	6,400	800 U	780 U	9,980
Perfluorooctanoic acid (PFOA)	NS	4670	820 U	830 U	510 J	800 U	780 U	1,210
Sum of PFOS + PFOA	1,000,000	596,670	ND	ND	6,910	ND	ND	101,010
Total PFCs	NS	619,140	ND	ND	8,620	ND	ND	106,540

General Notes:

ng/kg - nanograms per kilogram
NS - no applicable standard

Qualifier Notes:

U -- Not detected above the reporting detection limit.
J -- Estimated Concentration
D -- Diluted sample

Comparison Criteria:

NS - No applicable standard for this parameter
bold indicates exceedance of EPAR2 soil screening level



TABLE 1 - PFCs IN SOIL
STEWART INTERNATIONAL AIRPORT SOIL GEOPROBES

Location ID Date Depth (ft) Unit	EPAR2 Residential Soil (ng/kg)	SB003 6/30/2016 7.5 ng/kg	SB003 6/30/2016 12 ng/kg	SB004 6/30/2016 0.5 ng/kg	SB004 6/30/2016 5.8 ng/kg	SB004 6/30/2016 12 ng/kg	SB005 6/30/2016 0.5 ng/kg	SB005 6/30/2016 6 ng/kg
Analyte								
Perfluorobutane Sulfonate (PFBS)	NS	810 U	860 U	810 U	840 U	820 U	830 U	810 U
Perfluoroheptanoic Acid (PFHpA)	NS	810 U	860 U	810 U	840 U	820 U	270 J	810 U
Perfluorohexane Sulfonate (PFHxS)	NS	810 U	860 U	1,360	840 U	820 U	3,030	810 U
Perfluorononanoic Acid (PFNA)	NS	810 U	860 U	810 U	840 U	820 U	830 U	810 U
Perfluorooctane Sulfonic Acid (PFOS)	NS	810 U	860 U	5,940	840 U	820 U	29,900	810 U
Perfluorooctanoic acid (PFOA)	NS	810 U	860 U	430 J	840 U	820 U	620 J	810 U
Sum of PFOS + PFOA	1,000,000	ND	ND	6,370	ND	ND	30,520	ND
Total PFCs	NS	ND	ND	7,730	ND	ND	33,820	ND

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TABLE 1 - PFCs IN SOIL
STEWART INTERNATIONAL AIRPORT SOIL GEOPROBES

Location ID Date Depth (ft) Unit	EPAR2 Residential Soil (ng/kg)	SB005 6/30/2016 12 ng/kg	SB006 6/30/2016 0.5 ng/kg	SB006 6/30/2016 8 ng/kg	SB006 6/30/2016 16 ng/kg	SB007 6/30/2016 0.5 ng/kg	SB007 6/30/2016 4.5 ng/kg	SB007 6/30/2016 16 ng/kg
Analyte								
Perfluorobutane Sulfonate (PFBS)	NS	860 U	580 J	820 U	820 U	280 J	860 U	850 U
Perfluoroheptanoic Acid (PFHpA)	NS	860 U	1,350	820 U	820 U	890 U	860 U	850 U
Perfluorohexane Sulfonate (PFHxS)	NS	860 U	13,900	820 U	820 U	6,500	3,980	850 U
Perfluorononanoic Acid (PFNA)	NS	860 U	640 J	820 U	820 U	890 U	860 U	850 U
Perfluorooctane Sulfonic Acid (PFOS)	NS	860 U	355,000 D	820 U	820 U	94,300	6,680	850 U
Perfluorooctanoic acid (PFOA)	NS	860 U	1,380	820 U	820 U	290 J	860 U	850 U
Sum of PFOS + PFOA	1,000,000	ND	356,380	ND	ND	94,590	6,680	ND
Total PFCs	NS	ND	372,850	ND	ND	101,370	10,660	ND

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TABLE 1 - PFCs IN SOIL
STEWART INTERNATIONAL AIRPORT SOIL GEOPROBES

Location ID Date Depth (ft) Unit	EPAR2 Residential Soil (ng/kg)	SB007 DUP 6/30/2016 16 ng/kg	SB008 6/30/2016 0.5 ng/kg	SB008 6/30/2016 6 ng/kg	SB008 6/30/2016 12 ng/kg	SB009 6/30/2016 0.5 ng/kg	SB009 6/30/2016 6 ng/kg	SB009 6/30/2016 10.5 ng/kg
Analyte								
Perfluorobutane Sulfonate (PFBS)	NS	860 U	1,840	880 U	850 U	830 U	880 U	830 U
Perfluoroheptanoic Acid (PFHpA)	NS	860 U	3,030	880 U	850 U	830 U	880 U	830 U
Perfluorohexane Sulfonate (PFHxS)	NS	860 U	41,400	880 U	850 U	360 J	880 U	830 U
Perfluorononanoic Acid (PFNA)	NS	860 U	5,630	880 U	850 U	830 U	880 U	830 U
Perfluorooctane Sulfonic Acid (PFOS)	NS	860 U	1,840,000 D	880 U	850 U	7,040	880 U	830 U
Perfluorooctanoic acid (PFOA)	NS	860 U	5,680	880 U	850 U	830 U	880 U	830 U
Sum of PFOS + PFOA	1,000,000	ND	1,845,680	ND	ND	7,040	ND	ND
Total PFCs	NS	ND	1,897,580	ND	ND	7,400	ND	ND

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