ENVIROSCIENCE CONSULTANTS, INC.

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September 11, 2015

Inez K. Birbiglia Deputy Commissioner Town of Islip Parks, Recreation and Cultural Affairs 50 Irish Lane East Islip, NY 11730

Re: Roberto Clemente Park

Dear Ms. Birbiglia:

Introduction

On August 24, 2015, Enviroscience Consultants, Inc. obtained seven confirmatory soil endpoint samples from the southernmost portion of the former soccer fields and the recharge basin. This letter serves as a summary of the methods and results for the endpoint samples, which will be discussed in detail in our Removal Action Report (RAR).

Methods

The endpoint samples were collected in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved Material Removal Work Plan from the remaining surface soil after the removal of contaminated fill. Endpoint Samples 19 and 20 were obtained from the southernmost portion of the former soccer fields, while Endpoint Samples 21 to 25 were obtained from the recharge basin. The purpose of the endpoints samples is to evaluate the effectiveness of the removal action. Representatives from the Town and the NYSDEC were present during this evaluation. The samples were analyzed by a certified laboratory for NYSDEC Part 375 volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) metals, pesticides, an herbicide, and PCBs, along with an inspection for asbestos containing materials.

Results & Discussion

To evaluate the effectiveness of the removal action, the confirmatory endpoint sample results were compared to the NYSDEC Part 375 Residential Use Soil Cleanup Objectives, which is intended for use at residential properties to be protective of the community and the environment. Table 1 summarizes the results. Based on this comparison, all of the results were below the Soil Cleanup Objectives except for one compound (an SVOC) that slightly exceeded its Objective. However, based on its slight exceedance, along with the proposed soil cover that will be installed as part of the Park's restoration, all of the results are acceptable and demonstrate that the material removal plan was effective in removing the contaminated fill from the Park.

If there are any questions, please contact me.

Very truly yours,

Greg Menegio

Department Manager/Sr. Scientist

Confirmatory Soil Endpoint Sample Results Summary Roberto Clemente Park 400 Broadway, Brentwood, New York

Sample Location	Endpoint 19	Endpoint 20	Endpoint 21	Endpoint 22	NYSDEC Part 375 Residential Use Soil Cleanup Objectives
Volatile Organic Compo	unds (in micrograms	s per kilogram)			
Methylene chloride	20	29	30	44	51,000
Tetrachloroethylene	ND	ND	ND	ND	5,500
Semi-Volatile Organic Co	ompounds (in micro	grams per kilogram)			•
Acenaphthene	166	ND	ND	ND	100,000
Acenaphthylene	71.1 J	ND	ND	ND	100,000
Anthracene	365	76.9 J	ND	ND	100,000
Benzo(a)anthracene	1,030	279	62.5 J	68.4 J	1,000
Benzo(a)pyrene	651	180	51.7 J	59.6 J	1,000
Benzo(b)fluoranthene	748	215	59.1 J	62.3 J	1,000
Benzo(g,h,i)perylene	310	94.5	ND	ND	100,000
Benzo(k)fluoranthene	806	236	61.8 J	77.2 J	1,000
Chrysene	985	280	66.5 J	72.4 J	1,000
Dibenzo(a,h)anthracene	210	ND	ND	ND	330
Dibenzofuran	97.7	ND	ND	ND	14,000
Fluroanthene	1,760	540	121	133	100,000
Fluorene	184	ND	ND	ND	100,000
Indeno(1,2,3-cd)pyrene	353	79.6 J	ND	ND	500
Naphthalene	114	ND	ND	ND	100,000
Phenanthrene	1,510	355	69.2 J	67.0 J	100,000
Pyrene	1,550	441	98.0	111	100,000
Pesticides (in microgram	s per kilogram)				
4,4'-DDE	11.1	6.17	6.22	3.75	1,800
4,4'-DDT	39.9	24.3	13.9	29.8	1,700
alpha-Chlordane	13.0	7.36	4.50	4.08	910
Dieldrin	ND	2.96	2.24	ND	39
Polychlorinated Bipheny	els (in milligrams pe	r kilogram)	•		
Total PCBs	0.0409	ND	ND	ND	1
Metals (in milligrams per	r kilogram)				
Arsenic	4.14	3.21	2.14	2.29	16
Barium	233	95.5	37.5	33.3	350
Chromium, Trivalent	20.5	11.4	7.99	7.70	36
Copper	89.0	29.1	12.6	7.23	270
Lead	321	130	51.9	36.6	400
Manganese	247	132	86.4	70.3	2,000
Mercury	0.484	0.177	0.0645	0.0598	0.81
Nickel	18.7	9.60	7.33	6.08	140
Selenium	1.90	1.51	ND	ND	36
Zinc	229	110	44.5	30.9	2,200

Notes:

Only detected compounds and metals are summarized in this table.

Bold values indicate an exceedance of the New York State Department of Environmental Conservation (NYSDEC) Part 375 Residential Use Soil Cleanup Objectives.

ND = not detected

J = estimated concentration

Confirmatory Soil Endpoint Sample Results Summary Roberto Clemente Park 400 Broadway, Brentwood, New York

Sample Location	Endpoint 23	Endpoint 24	Endpoint 25	NYSDEC Part 375 Residential Use Soil Cleanup Objectives
Volatile Organic Compou	ınds (in micrograms	per kilogram)	•	•
Methylene chloride	38	28	35	51,000
Tetrachloroethylene	5.8 J	ND	ND	5,500
Semi-Volatile Organic Co	ompounds (in micro	grams per kilogram)		•
Acenaphthene	ND	ND	ND	100,000
Acenaphthylene	ND	ND	ND	100,000
Anthracene	ND	ND	ND	100,000
Benzo(a)anthracene	ND	ND	75.5 J	1,000
Benzo(a)pyrene	ND	ND	61.3 J	1,000
Benzo(b)fluoranthene	ND	ND	60.6 J	1,000
Benzo(g,h,i)perylene	ND	ND	ND	100,000
Benzo(k)fluoranthene	ND	ND	71.4 J	1,000
Chrysene	ND	ND	80.2 J	1,000
Dibenzo(a,h)anthracene	ND	ND	ND	330
Dibenzofuran	ND	ND	ND	14,000
Fluroanthene	ND	ND	148	100,000
Fluorene	ND	ND	ND	100,000
Indeno(1,2,3-cd)pyrene	ND	ND	ND	500
Naphthalene	ND	ND	ND	100,000
Phenanthrene	ND	ND	74.1 J	100,000
Pyrene	ND	ND	120	100,000
Pesticides (in microgram	s per kilogram)	•	•	•
4,4'-DDE	ND	3.57	4.20	1,800
4,4'-DDT	2.48	2.55	17.5	1,700
alpha-Chlordane	2.14	ND	7.51	910
Dieldrin	ND	ND	ND	39
Polychlorinated Bipheny	ls (in milligrams per	· kilogram)		•
Total PCBs	ND	ND	ND	1
Metals (in milligrams per	r kilogram)	•	•	•
Arsenic	2.31	3.41	3.10	16
Barium	15.9	23.7	62.0	350
Chromium, Trivalent	7.86	10.7	9.62	36
Copper	4.83	6.88	10.9	270
Lead	17.8	21.1	65.9	400
Manganese	72.8	71.3	98.6	2,000
Mercury	ND	0.0542	0.0710	0.81
Nickel	4.92	5.86	7.93	140
Selenium	ND	1.21	ND	36
Zinc	18.7	25.2	47.5	2,200

Notes:

Only detected compounds and metals are summarized in this table.

Bold values indicate an exceedance of the New York State Department of Environmental Conservation (NYSDEC)

Part 375 Residential Use Soil Cleanup Objectives.

estimated concentration

J

ND = not detected