

PROJECT: The Courtyard at Theodore Fremd Avenue
Proposed Senior Housing
Developer: Pawling Holdings, LLC

DATE: APRIL 23, 2014

SCOPE: Soil Testing Results

INTRODUCTION:

On April 10, 2014 I took soil samples in four (4) locations on this site at 24" depth below surface.

In Test hole #3 I took three samples at various depths (24", 48" & 72"). The total number of samples is thus six (6). A map of the locations is included herein.

The soil sampling procedure was witnessed by Mr. Torres of the Westchester County Department of Health.

Soil samples were bottled, placed in a cooler and refrigerated overnight. The samples were picked up the next morning by York Labs, who later provided a Technical Report of the samples that is included in this report.

Based on the history of the site, near a gas station and roadways, the soils were sampled for Volatile compounds, Semi-volatile compounds and Metals. Each of the six (6) samples was tested for 147 different chemical or elemental parameters.

For each parameter where there was a detection, we compared the detected result to the NYS DEC Soil Cleanup Objectives or Supplemental Soil Cleanup Objective (SSCO). For Metals that had no cleanup objective, we compared the results to average rural concentrations or other Eastern US averages.

The results of each Sample Run are enclosed.

DISCUSSION:

If any parameter is detected we show the relevant standard. If the sampled parameter exceeds the relevant standard it is flagged, as follows:

+++	The sample shows a very slight increase over the standard but is Undetected in other samples.
Outlier	The sampled parameter shows up as high in this sample but other samples show much lower concentrations that are within standards.
OK	The sampled parameter is within guidelines of Unrestricted Use , meaning a cleanup or restrictions are not necessary.

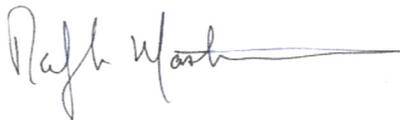
Discussion - Continued

The only parameters that appeared outside of standards are outliers that do not represent the site as a whole, as follows:

1. The Acetone parameter was found to be high in 1 of 6 samples and undetected in 5 of 6 samples. Acetone is a solvent and can arrive to the site by weather events.
2. Lead, which occurs naturally in soil, was found high in 2 of 6 samples and within standards in 4 of 6 samples. There is no actual standard for Lead as it may range from 10 to 2020 parts per million. For this report we used a low value of 37 ppm which is a national average. The highest concentration on the site was 613 ppm in one sample which indicates the probability of sample contamination rather than soil contamination as the other samples were in the range of 4.0 to 46.9 ppm.
3. Mercury was detected in 1 out of the 6 samples and Undetected in 5 of 6 samples. Again, this sample should be considered an outlier since the other samples showed no detection at all.

The Lab Report and our comparison of the results to standards are enclosed in this report.

Submitted by:

A handwritten signature in blue ink, appearing to read "Ralph Mastromonaco", followed by a horizontal line extending to the right.

Ralph G. Mastromonaco, PE, M.E. Environmental Engineering

RESULTS:

Site #1:

Detected Parameters Only

Parameter	CAS No	Relevant Standard PPM	Sample Result PPM	Status
2-Butanone (Methyl ethyl ketone)	78-93-3	.12	.092	OK
Acetone	67-64-1	0.05	.390	Outlier
Benz(a)anthracene ^f	56-55-3	1 ^c	.352	OK
Benzo(a)pyrene	50-32-8	1 ^c	.406	OK
Benzo(b)fluoranthene ^f	205-99-2	1 ^c	.320	OK
Benzo(k)fluoranthene ^f	207-08-9	0.8 ^c	.343	OK
Bis(2-ethylhexyl) phthalate	117-81-7	50	.129	OK
Fluoranthene ^f	206-44-0	100 ^a	.680	OK
Indeno(1,2,3-cd)pyrene ^f	193-39-5	0.5 ^c	.212	OK
Phenanthrene ^f	85-01-8	100	.172	OK
Pyrene ^f	129-00-0	100	.656	OK
Arsenic	7440-38-2	13 ^c	7.12	OK
Barium	7440-39-3	350 ^c	141	OK
Cadmium	7440-43-9	2.5 ^c	1.07	OK
Chromium	na	37 (rural)	29.8	OK
Lead	7439-92-1	63 ^c	46.9	OK

Site #2:**Detected Parameters Only**

Parameter	CAS No	Relevant Standard PPM	Sample Result PPM	Status
Benz(a)anthracene ^f	56-55-3	1 ^c	.760	OK
Fluoranthene ^f	206-44-0	100 ^a	1.120	OK
Pyrene ^f	129-00-0	100	.941	OK
Arsenic	7440-38-2	13 ^c	3.29	OK
Barium	7440-39-3	350 ^c	128	OK
Cadmium	7440-43-9	2.5 ^c	1.29	OK
Chromium	na	37 (rural)	32	OK
Lead	7439-92-1	63 ^c	35	OK

Site #3A:**Detected Parameters Only**

Parameter	CAS No	Relevant Standard PPM	Sample Result PPM	Status
Arsenic	7440-38-2	13 ^c	3.8	OK
Barium	7440-39-3	350 ^c	92.6	OK
Cadmium	7440-43-9	2.5 ^c	.982	OK
Chromium	na	37 (rural)	26.9	OK
Lead	7439-92-1	63 ^c	74.1	Outlier

Site #3B:

Detected Parameters Only

Parameter	CAS No	Relevant Standard PPM	Sample Result PPM	Status
Acenaphthylene ^f	208-96-8	100 ^a	.195	OK
Anthracene ^f	120-12-7	100 ^a	.279	OK
Benz(a)anthracene ^f	56-55-3	1 ^c	.949	OK
Benzo(a)pyrene	50-32-8	1 ^c	.583	OK
Benzo(b)fluoranthene ^f	205-99-2	1 ^c	.446	OK
Benzo(k)fluoranthene ^f	207-08-9	0.8 ^c	.604	OK
Chrysene	218-01-9	1.0	1.080	+++
Fluoranthene ^f	206-44-0	100 ^a	2.610	OK
Indeno(1,2,3-cd)pyrene ^f	193-39-5	0.5 ^c	.159	OK
Phenanthrene ^f	85-01-8	100	1.250	OK
Pyrene ^f	129-00-0	100	2.990	OK
Arsenic	7440-38-2	13 ^c	4.45	OK
Barium	7440-39-3	350 ^c	128	OK
Cadmium	7440-43-9	2.5 ^c	.998	OK
Chromium	na	37 (rural)	26.1	OK
Lead	7439-92-1	63 ^c	613	Outlier
Mercury	7439-97-6	.18	.274	Outlier