

2014

The second group has been designated the *Eastern Plume wells*, these wells (MW-7Br, EW-14D, BP-3B,C, BP-15B,C, BP-10B,C) represent those wells which appear to have been impacted from unknown sources north and east of the original Nassau County Fireman's Training Center offsite monitoring well network and the former Offsite Recovery Well field.

The twelve (12) offsite PTM wells selected for sampling in the revised post-termination monitoring program have been divided into two groups for review. The first group has been designated as the *FTC Core Wells*, it includes those monitoring wells (BP-2B, BP-4B, BP-12B, C) which are adjacent to and directly downgradient of the Nassau County Fire Service Academy (see map).

The Nassau County Department of Public Works has completed the first round of New York State Department of Environmental Conservation (NYSDEC) revised and approved Post Termination Monitoring at the Nassau County Fire Service Academy (A.K.A. Firemen's Training Center) site. This program replaces the original termination monitoring program stipulated in the approved 1994 Remediation Monitoring Program for this site. The Post Termination Monitoring results for the revised group of offsite monitoring wells have been included herewith for your review.

Dear Mr. Rung:

Re: Firemen's Training Center (Site #1-30-042)
Revised Post Termination Monitoring Program Sampling Results – September 2014

Benjamin Rung, P.E., Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control
625 Broadway
Albany, New York 12233

October 29, 2014

COUNTY OF NASSAU
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590-2723



GM

EDWARD P. MANGANO
COUNTY EXECUTIVE

SHILA SHAH-GAVNUNDIAS, P.E.
COMMISSIONER

DEC DOC
130 042

Offsite Post Termination Monitoring Well Summary (FTC Core Wells)

Review of the groundwater sampling results obtained from the four (4) *FTC Core Wells* indicates that groundwater collected from these wells is below detectable limits (BDL) for all Volatile Organic Compounds (VOC's) tested, this includes the fifteen (15) volatile organic compounds originally designated for monitoring in the Remediation Monitoring Plan (RMP) developed for the site in 1994.

Post Termination Monitoring Well Summary (Eastern Plume Wells)

Review of the volatile organic compound results obtained from the group of *Eastern Plume Wells* (see map) indicates that all eight (8) wells have been impacted by varying concentrations of volatile organic compounds. The highest concentration of volatile organic compounds is found in monitoring well MW-7Br where a total of 2,515 ppb was measured. The lowest total volatile organic concentration was detected in monitoring well BP-10C where a total volatile organic compound concentration of 5.5 ppb was recorded.

The individual volatile organic compounds with the highest concentrations were Tetrachloroethylene (160 ppb / BP-3C), Trichloroethylene (2,267 ppb / MW-7Br) and Cis-1, 2 Dichloroethylene (160 ppb / MW-7Br). The highest concentration and widest variety of compounds were detected in the "B" Hydrogeologic zone (-80 to -140 ft. below msf). A significantly lower number of compounds at lower concentration are found in the "C" Hydrogeologic zone (-180 to -240 ft. below msf).

If you require any additional information regarding these data, please contact Mr. Michael Flaherty, Hydrogeologist III at (516) 571-7514.

Very truly yours,



Shila Shah-Gavounias, P.E.

Commissioner of Public Works

SSG:KGA:JLD:rp

Attachment

c: Hon. Ralph Ekstrand, Mayor, Inc. Village of Farmingdale

Jane M. Houdek, Deputy County Attorney

Joseph L. Davenport, Unit Head, Water/Wastewater Engineering Unit

Joseph DeFranco, Chief, Office of Soil and Groundwater Remediation, NCDH

Michael Flaherty, Hydrogeologist III

Walter J. Parish, Regional Hazardous Waste Engineer, NYSDEC

Guy Bobersky, Section Chief, Remedial Bureau A, NYSDEC

Tara Ruland, Environmental Engineer, NYSDEC

Joseph White, Section Chief, Remedial Bureau E, NYSDEC

FIREMAN'S TRAINING CENTER

SEMI-ANNUAL PTM (revised) SAMPLING RESULTS FOR 2014 (FTC Core Wells)

VOLATILE ORGANICS COMPOUNDS (ppb)

	WELL BP-2B DATE SAMPLED	WELL BP-4B DATE SAMPLED	WELL BP-12B DATE SAMPLED	WELL BP-12C DATE SAMPLED
1,1,1,2-Tetrachloroethane	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	BDL	BDL	BDL	BDL
1,1,2-Trichloro-1,1,2-difluoroethane	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane	BDL	BDL	BDL	BDL
1,1-Dichloroethane	BDL	BDL	BDL	BDL
1,1-Dichloroethene	BDL	BDL	BDL	BDL
1,2,3-Trichlorobenzene	BDL	BDL	BDL	BDL
1,2,3-Trichloropropane	BDL	BDL	BDL	BDL
1,2,4,5-Tetramethylbenzene	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL
1,2-Dichloroethane	BDL	BDL	BDL	BDL
1,2-T-Dichloroethene	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL
Acetone	BDL	BDL	BDL	BDL
Benzene	BDL	BDL	BDL	BDL
Bromochloromethane	BDL	BDL	BDL	BDL
Carbon Tetrachloride	BDL	BDL	BDL	BDL
Chlorobenzene	BDL	BDL	BDL	BDL
Chlorodifluoromethane	BDL	BDL	BDL	BDL
Chloroform	BDL	BDL	BDL	BDL
Chloromethane	BDL	BDL	BDL	BDL
cis-1,2-Dichloroethylene	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL
2 - Hexanone	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	BDL	BDL	BDL
m, p-Xylene	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL
Methylene Chloride	BDL	BDL	BDL	BDL
Methyl Ethyl Ketone	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL
n-Butyl Benzene	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL
o-Xylene	BDL	BDL	BDL	BDL
p-Ethyltoluene	BDL	BDL	BDL	BDL
p-Isopropyltoluene	BDL	BDL	BDL	BDL
sec-Butyl Benzene	BDL	BDL	BDL	BDL
t-1,2 Dichloroethene	BDL	BDL	BDL	BDL
tert-Butyl Benzene	BDL	BDL	BDL	BDL
Tetrachloroethylene	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL
Trichlorodifluoromethane	BDL	BDL	BDL	BDL
Trichloroethylene	BDL	BDL	BDL	BDL
Vinyl Chloride	BDL	BDL	BDL	BDL
TVOC	0.0	0.0	0.0	0.0

BDL - Below detection limits

B - Analyte detected in associated Method Blank

All results in pp

- FTC / RMP compound

FIREMAN'S TRAINING CENTER
SEMI-ANNUAL PTM (revised) SAMPLING RESULTS FOR 2014 (Eastern Plume Wells)

VOLATILE ORGANICS COMPOUNDS (ppb)

	WELL MW-7Br DATE SAMPLED	WELL EW-14D DATE SAMPLED	WELL BP-3B DATE SAMPLED	WELL BP-3C DATE SAMPLED	WELL BP-15B DATE SAMPLED	WELL BP-15C DATE SAMPLED	WELL BP-10B DATE SAMPLED	WELL BP-10C DATE SAMPLED
1,1,1,2-Tetrachloroethane	8/20/14 BDL	9/18/14 BDL	9/15/14 BDL	10/6/14 BDL	9/17/14 BDL	9/17/14 BDL	9/12/14 BDL	9/12/14 BDL
1,1,1-Trichloroethane	15.6	20	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-Trichloro-1,1,2-difluoroethane	BDL	.75J	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	1.6	.5J	5.7	9.0	36	5.5	12	BDL
1,1-Dichloroethene	17	17	BDL	BDL	BDL	BDL	BDL	BDL
1,2,3-Trichloropropane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,3-Trichloropropane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4,5-Tetramethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethane	0.7	4.4	BDL	BDL	BDL	BDL	BDL	BDL
1,2-T-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acetone	BDL	19	BDL	BDL	8	BDL	BDL	BDL
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromochloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorodifluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	5.1	.91J	BDL	BDL	12	BDL	BDL	BDL
Chloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2-Dichloroethylene	140	1.3	58	190.0	67	7.8	19	5.5
Dichlorodifluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2 - Hexanone	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	BDL	BDL	BDL	BDL	5.2	BDL	BDL	BDL
Methyl Ethyl Ketone	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
n-Butyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	BDL	BDL	BDL	BDL	5.5	BDL	BDL	BDL
p-Ethyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
sec-Butyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
t-1,2 Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
tert-Butyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethylene	68.1	3.4	62	160	19	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethylene	2,267	200	9.2	20.0	11	BDL	BDL	BDL
Vinyl Chloride	BDL	BDL	BDL	12	19	BDL	BDL	BDL
TVOC	2515.1	265.1	134.9	421.0	197.7	13.3	31.0	5.5

BDL - Below detection limits
- FTC / RMP compound

B - Analyte detected in associated Method Blank

All results in ppb

