FILE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

RCRA RECORDS CENTER
FACILITY Ciba Geigy Corp
I.D. NO. RID001494323
FILE LOC. R-5
OTHER

November 1, 1988

Representative Irving H. Levin
39 Lyndon Road
Cranston, RI 02905

RE: EPA Soil Sampling at Parkview Jr. High & Fay Fields

Dear Representative Levin:

I am writing to update you on the status of EPA's soil sampling efforts at the Parkview Junior High Field and Fay Field. I am attaching a rough copy of the analytical results and a diagram of the areas sampled. As you can see the sample results do not indicate widespread contamination. The letter "U" next to a number indicates that the substance was not detected at the detection limit shown. An example is chloromethane - 13U. This indicates that chloromethane was not found in the sample at a concentration greater than or equal to 13 parts per billion (ppb). The letter "J" next to a number indicates that the number is estimated due to equipment limitations. It is assumed that the substance is present but it cannot be measured accurately. The letter "R" next to a number indicates that the number is rejected and therefore not valid.

The following Table lists probable human carcinogens found in soil samples taken on May 19, 1988 at the indicated fields:

CONCENTRATION (ppb)

	(F A Y F I E L D)				(JUNIOR HIGH)	
Substance	Sample 88556	Sample 88557	Sample 88558	Sample 88559	Sample 88560	Sample 88561
Benzo(a)anthracene	61 J	73 J	370 U	370 U	390 U	42 J
bis(2-ethylhexyl) Phthalate	68 J	70 J	2900	370 U	73 J	91 J
Chrysene	97 J	130 J	370 U	46 J	65 J	73 J
Benzo(b)Fluoranthene	180 J	220 J	43 J	110 J	130 J	110 J
Benzo(a)Pyrene	97 J	160 J	370 U	370 U	73 J	56 J
Indeno(1,2,3-cd)Pyrene	92 J	120 J	370 U	370 U	62 R	400 U
4,4' - DDE	73	2.7 J	10 J	15 J	2.3 R	190 U
4,4' - DDT	11 J	12 J	18	25	3.9 J	190 U

SEMS DocID 658539

An EPA toxicologist has calculated the total potential lifetime cancer risk level for a composite of the above samples. The composite sample assumes the highest concentration of each substance. The risk is based on a lifetime exposure of 70 years (exposure being a combination of soil ingestion and soil contact). It is assumed that the concentrations detected are uniformly distributed in the entire field. The potential lifetime cancer risk level has been calculated to be 1×10^{-6}. In EPA's opinion this represents an insignificant cancer risk probability of one in one million.

In addition, EPA transmitted a draft Corrective Action Order to Ciba-Geigy on September 30, 1988. The Agency is currently discussing the terms of the Order with Ciba-Geigy.

If you have any questions, please contact me at (617) 573-9643.

Sincerely,

Frank Battaglia

Frank Battaglia, Environmental Engineer
NH & RI Waste Regulation Section

cc: Eric Palazzo, Cranston Mayor's Office
Mary Jane O'Donnell, EPA

FAY FIELD

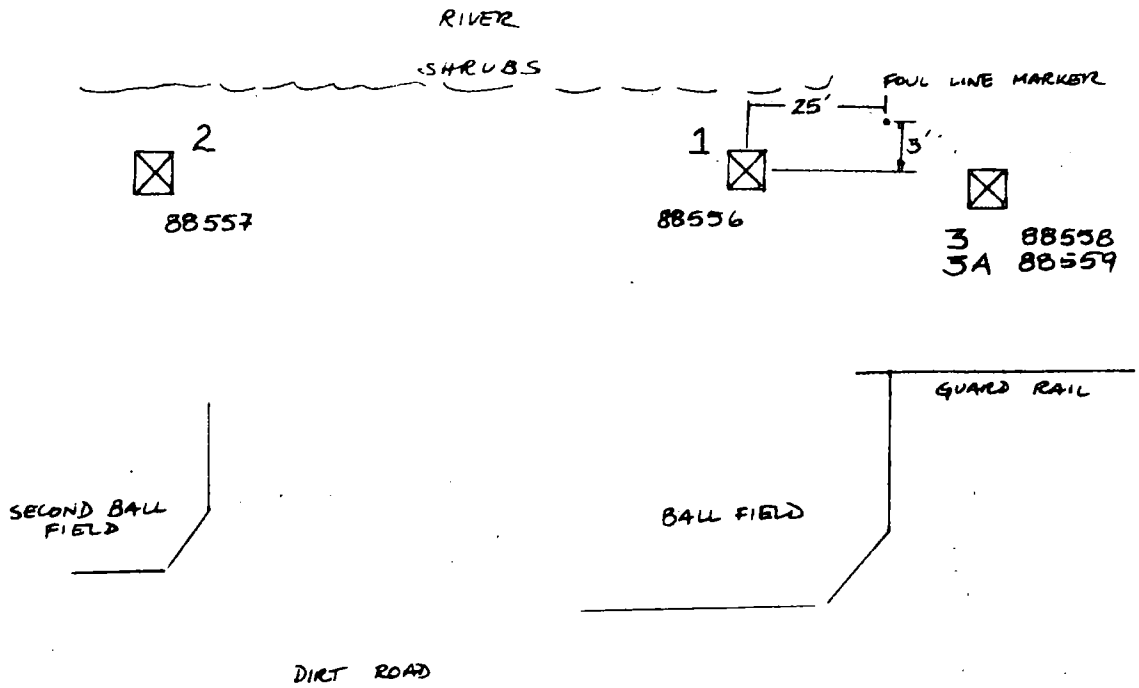

FIGURE 1

PARKVIEW JR HIGH FIELD

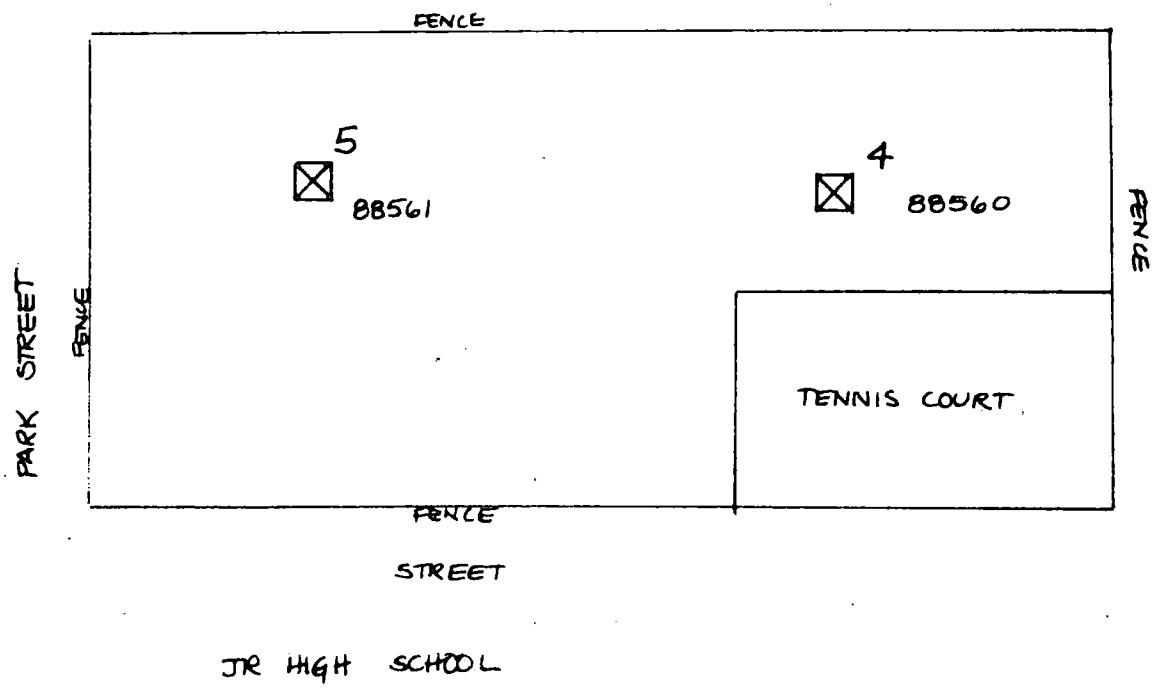

FIGURE 2

Soils

CLP VOLATILE ORGANIC ANALYSIS
~~AQUEOUS~~ ANALYTICAL RESULTS
~~(ppb)~~ ug/Kg

Table ~~[illegible]~~ I

Sample Location		88556	88557	88558	88559	88560	88561	88562				
Sample Number		18811919	18811920	18811921	18811922	18811923	18811924	18811925				
Traffic Report Number		AK 603	AK604	AK605	AK606	AK607	AK608	AK609				
Remarks				Dups →								
Compound	Detection Limit ~~(ppb)~~											
Chloromethane		13 U	15 U	11 U	11 U	12 U	12 U					
Bromomethane		13 U	15 U	11 U	11 U	12 U	12 U					
Vinyl Chloride		13 U	15 U	11 U	11 U	12 U	12 U					
Chloroethane		13 U	15 U	11 U	11 U	12 U	12 U					
Methylene Chloride		32 R	35 R	9 R	16 R	15 R	31 R	14				
Acetone	all U5	13 U5	15 U5	11 U5	11 U5	12 U5	12 U5	69				
Carbon Disulfide		6 U	7 U	6 U	6 U	6 U	6 U					
1,1-Dichloroethene		6 U	7 U	6 U	6 U	6 U	6 U					
1,1-Dichloroethane		6 U	7 U	6 U	6 U	6 U	6 U					
~~Total~~ 1,2-Dichloroethene		6 U	7 U	6 U	6 U	6 U	6 U					
Chloroform		6 U	7 U	6 U	6 U	6 U	6 U					
1,2-Dichloroethane		6 U	7 U	6 U	6 U	6 U	6 U					
2-Butanone		13 U5	15 U5	11 U5	11 U5	12 U5	12 U5					
1,1,1-Trichloroethane		6 U	7 U	6 U	6 U	6 U	6 U					
Carbon Tetrachloride		6 U	7 U	6 U	6 U	6 U	6 U					
Vinyl Acetate		13 U	15 U	11 U	11 U	12 U	12 U					
Bromodichloromethane		6 U	7 U	6 U	6 U	6 U	6 U					
1,1,2,2-Tetrachloroethane		6 U	7 U	6 U	6 U	6 U	6 U					
1,2-Dichloropropane		6 U	7 U	6 U	6 U	6 U	6 U					
trans-1,3-Dichloropropene		6 U	7 U	6 U	6 U	6 U	6 U					
Trichloroethene		6 U	7 U	6 U	6 U	6 U	6 U					
Dibromochloromethane		6 U	7 U	6 U	6 U	6 U	6 U					
1,1,2-Trichloroethane		6 U	7 U	6 U	6 U	6 U	6 U					
Benzene		6 U	7 U	6 U	6 U	6 U	6 U					
Cis-1,3-Dichloropropene		6 U	7 U	6 U	6 U	6 U	6 U					
~~2-Chloroethylvinyl ether~~												
Bromoform		6 U5	7 U5	6 U5	6 U5	6 U5	6 U5					
2-Hexanone		13 U5	15 U5	11 U5	11 U5	12 U5	12 U5					
4-Methyl-2-Pentanone		13 U	15 U	11 U	11 U	12 U	12 U					
Tetrachloroethene		6 U	7 U	6 U	6 U	6 U	6 U					
Toluene		6 U	7 U	6 U	6 U	6 U	6 U					
Chlorobenzene		6 U	7 U	6 U	6 U	6 U	6 U					
Ethylbenzene		6 U	7 U	6 U	6 U	6 U	6 U					
Styrene		6 U	7 U	6 U	6 U	6 U	6 U					
Total Xylenes		6 U	7 U	6 U	6 U	6 U	6 U					
Total volatile organic concentration (ppb)												
Concentration/Dilution factor		1	1	1	1	1	1	1				
Date received by lab		5/20/88	5/20	5/20	5/20	5/20	5/20	5/20				
Date of analysis		5/23/88	5/23	5/23	5/25	5/25	5/25	5/23				
Instrument used for analysis												
% moisture		22	33	10	11	15	17	0				

Notes:

- Compound was not detected.
- J Quantitation is approximate due to limitations identified during the quality control review (data validation).
- * Value is rejected due to other contractual criteria examined during the quality control review.
- ** Value is rejected due to blank contamination identified during the quality control review.

CLP EXTRACTABLE ORGANIC ANALYSIS
AQUEOUS ANALYTICAL RESULTS
Soils (ppb) µg/Kg

Table II

Field Dups. ES.D. blank soil.

Sampling Location		88556	88557	88558	88559	88560	88561	88562
Sample Number		1811919	1811920	1811921	1811922	1811923	1811924	1811925
Traffic Report Number		AK603	AK604	AK605	AK606	AK607	AK608	AK609
Remarks		µg/Kg						
Semivolatile Compound	Detection Limit (ppb)							
~~N-Nitrosodimethylamine~~		420 U	490 U	370 U	370 U	390 U	400 U	330 U
Phenol		420 U		370 U	370 U	390 U	400 U	330 U
~~Aniline~~		420 U						
bis(2-Chloroethyl)Ether		420 "						
2-Chlorophenol		"						
1, 3-Dichlorobenzene		"						
1, 4-Dichlorobenzene		"						
Benzyl Alcohol		"						
1, 2-Dichlorobenzene		"						
2-Methylphenol		"						
bis(2-chloroisopropyl)Ether		"						
4-Methylphenol		"						
N-Nitroso-Di-n-Propylamine		"						
Hexachloroethane		"						
Nitrobenzene		"						
Isophorone		"						
2-Nitrophenol		"						
2, 4-Dimethylphenol		2100 U	130 J	1800 U	1800 U	1900 U	1900 U	1600 U
Benzoic Acid		420 U	490 U	370 U	370 U	390 U	400 U	330 U
bis(-2-Chloroethoxy)Methane		"						
2, 4-Dichlorophenol		"						
1, 2, 4-Trichlorobenzene		"						
Naphthalene		"						
4-Chloroaniline		"						
Hexachlorobutadiene		"						
4-Chloro-3-Methylphenol		"						
2-Methylnaphthalene		"						
Hexachlorocyclopentadiene		"						
2, 4, 6-Trichlorophenol		2100 U	2400 U	1800 U	1800 U	1900 U	1900 U	1600 U
2, 4, 5-Trichlorophenol		420 U	490 U	370 U	370 U	390 U	400 U	330 U
2-Chloronaphthalene		2100 U	2400 U	1800 U	1800 U	1900 U	1900 U	1600 U
2-Nitroaniline		420 U	490 U	370 U	370 U	390 U	400 U	330 U
Dimethyl Phthalate		"	490 U	370 U	370 U	390 U	400 U	330 U
Acenaphthylene		2100 U	2400 U	1800 U	1800 U	1900 U	1900 U	1600 U
3-Nitroaniline		22	33	10	11	15	17	0
		1	1	1	1	1	1	1
Concentration/Dilution factor		5/20	5/20	5/20	5/20	5/20	5/20	5/20
Date received by lab		5/23	5/23	5/23	5/23	5/23	5/23	5/23
Date sample extracted		5/25	5/27	5/27	5/27	5/27	5/26	5/27
Date analysis		[redacted]	[redacted]					

CLP EXTRACTABLE ORGANIC ANALYSIS
~~AQUEOUS~~ ANALYTICAL RESULTS
(ppb)
PAGE TWO 30115

Table III

Field Dups.

Sampling Location												
Sample Number												
Traffic Report Number	AK603	AK604	AK605	AK606	AK607	AK608	AK609					
Remarks												
Semivolatile Compound	~~Detection Limit (ppb)~~											
Acenaphthene	420 U	490 U	370 U	370 U	390 U	400 U	330 U					
2, 4-Dinitrophenol	2100 U	2400 U	1800 U	1800 U	1900 U	1900 U	1600 U					
4-Nitrophenol	2100 U	2400 U	1800 U	1800 U	1900 U	1900 U	1600 U					
Dibenzofuran	420 U	490 U	370 U	370 U	390 U	400 U	330 U					
2, 4-Dinitrotoluene	420 U		370 U	370 U	390 U							
2, 6-Dinitrotoluene	"		370 U	370 U	390 U							
Diethylphthalate	"											
4-Chlorophenyl-phenylether	"											
Fluorene	"											
4-Nitroaniline	2100 U	2400 U	1800 U	1800 U	1900 U	1900 U	1600 U					
4, 6-Dinitro-2-Methylphenol	2100 U	2400 U	1800 U	1800 U	1900 U	1900 U	1600 U					
N-Nitrosodiphenylamine (1)	420 U	490 U	370 U	370 U	390 U	400 U	330 U					
4-Bromophenyl-phenylether	"											
Hexachlorobenzene	"											
Pentachlorophenol	2100 U	2400 U	1800 U	1800 U	1900 U	1900 U	1600 U					
Phenanthrene	90 J	140 J	49 J	51 J	75 J	62 J	330 U					
Anthracene	420 U	490 U	370 U	370 U	390 U	400 U						
Di-n-Butylphthalate	"	"	120 J	370 U	390 U	400 U						
Fluoranthene	170 J	250 J	54 J	80 J	160 J	130 J						
~~Benzidine~~	~~490 U~~											
Pyrene	190 J	240 J	59 J	70 J	140 J	130 J						
Butylbenzylphthalate	420 U	490 U	60 J	370 U	390 U	400 U						
3, 3-Dichlorobenzidine	850 U	990 U	730 U	740 U	780 U	800 U	660 U					
Benzo(a)Anthracene	61 J	73 J	370 U	370 U	390 U	42 J	330 U					
bis(2-Ethylhexyl)Phthalate	68 J	70 J	390 U	370 U	73 J	98 J						
Chrysene	97 J	130 J	370 U	46 J	65 J	73 J						
Di-n-Octyl Phthalate	420 U	490 U	370 U	370 U	390 U	400 U						
Benzo(b)Fluoranthene	180 J	220 J	43 J	110 J	130 J	110 J						
Benzo(k)Fluoranthene	120 J	160 J	370 U	48 R	79 R	81 J						
Benzo(a)Pyrene	97 J	160 J		370 U	73 J	56 J						
Indeno(1, 2, 3-cd)Pyrene	92 J	120 J			62 R	400 U						
Dibenz(a, h)Anthracene	420 U	490 U			390 U	400 U						
Benzo(g, h, i)Perylene	"	170 J			86 J	400 U						

CLP EXTRACTABLE ORGANIC ANALYSIS
AQUEOUS ANALYTICAL RESULTS
(ppb) Soils
PAGE THREE

Sampling Location		88556	88557	88558	88559	88560	88561	88562 (F.S.D. soil blk.)
Sample Number								
Traffic Report Number		AK603	AK604	AK605	AK606	AK607	AK608	AK609
Remarks	ug/kg			DUP →				
Semivolatile Compound	Detection Limit (ppb)							
Alpha-BHC		21 U	12 U	9.9 U	9.0 U	9.4 U	96 U	
Beta-BHC								
Delta-BHC								
Gamma-BHC (Lindane)								
Heptachlor								
Aldrin								
Heptachlor Epoxide								
Endosulfan I				9.4 J	18 J			
Dieldrin		41 U	24 U	18 U	18 U	19 U	190 U	
4, 4'-DDE		73	2.9 J	10 J	15 J	2.3 R		
Endrin		41 U	24 U	18 U	18 U	19 U		
Endosulfan II		"	"	18 U	18 U	"		
4, 4'-DDD		20 J	"	4.6 R	3.1 J	"		
~~Endrin Aldehyde~~ chlordane alpha		210 U	120 U	89 U	90 U	94 U	960 U	
Endosulfan Sulfate		41 U	24 U	18 U	18 U	19 U	190 U	
4, 4-DDT		11 J	12 J	18	23	3.9 J	"	
Methoxychlor		210 U	120 U	89 U	90 U	94 U	960 U	
Endrin Ketone		41 U	24 U	18 U	18 U	19 U	190 U	
Chlordane - gamma		5.5 J	12 R	5.8 J	4.0 J	3.5 J	960 U	
Toxaphene		410 U	240 U	180 U	180 U	190 U	1900 U	
Aroclor-1016		210 U	120 U	89 U	90 U	94 U	960 U	
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254		410 U	240 U	180 U	180 U	190 U	1900 U	
Aroclor-1260		"	"	"	"	"	"	
moisture		22	33	10	11	15	17	0
Concentration/Dilution factor		2	1	1	1	1	10	1
Date received by lab		5-20-88	5-20	5-20	5-20	5-20	5-20	5-20
Date sample extracted		5-23	5-23	5-23	5-23	5-23	5-23	5-23
Date of analysis		6-3	6-3	6-3	6-3	6-3	6-3	6-4
Instrument used for analysis								

Notes:

- Compound was not detected.
- J Quantitation is approximate due to limitations identified during the quality control review (data validation).
- o Value is rejected due to other contractual criteria examined during the quality control review.
- oo Value is rejected due to blank contamination identified during the quality control review.