MALCOLM PIRNIE

MALCOLM PIRNIE, INC.
ENVIRONMENTAL ENGINEERS, SCIENTISTS & PLANNERS

PRIVILEGED AND CONFIDENTIAL
PREPARED AT THE REQUEST OF LEGAL COUNSEL

January 5, 1996

Mr. T. Kevin Sheehy
Associate General Counsel
Environmental
International Specialty Products
1361 Alps Road
Wayne, New Jersey 07470

Re: GAF Parking Lot Site PCB Delineation Results

Dear Mr. Sheehy:

This letter report presents the results of the PCB-delineation task performed by Malcolm Pirnie at the referenced site and provides recommendations for further action. The objective of the task was to delineate the areal and vertical extent of fill material near test pit TP-1 that contained greater than 10 parts per million (ppm) of polychlorinated biphenyls (PCBs). The task met this objective, and was performed in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Work Plan dated July 1995.

As you know, this work was performed because a sample of reddish-stained soil collected from TP-1, which was excavated during the Phase II Addendum Investigation (Malcolm Pirnie, 1995), was found to contain the PCB Aroclor 1242. The reddish-stained soil was observed in a thin horizon, about three feet below grade, in the southeast quadrant of the test pit.

The delineation was performed by collecting soil samples at strategic locations around TP-1 and screening selected portions of the samples in the field for PCBs using an Enviroguard immunoassay field-screening kit (Millipore Corporation). Borings were advanced at eight locations surrounding the test pit (Figure 1) using a Geoprobe® macro-core sampler. Originally, four borings were planned; however, four additional borings were advanced, based on the field-screening results, to complete the delineation. The field screening was performed on September 26 and 27, 1995. The daily high temperatures for these days never reached 81°F, which is the temperature limit recommended by Millipore for performing PCB field screening. Mr. Tom Suozzo (NYSDEC) was present at the site periodically both days and concurred with the locations of the eight borings.

A total of 25 samples were screened using the immunoassay test kit: three from each boring, and one surface-soil sample. The surface-soil sample was comprised of red-stained soil from the backfilled area of TP-1. The area of red-stained soil was observed to be very small (less than one square foot). Seven of the screened samples were split and sent to Life Science Laboratories, Inc. in Syracuse, New York for PCB analysis (EPA Method 8080). The results of the screening and the laboratory analyses are summarized in Table 1.

Our review of the analytical results revealed several important observations. First, there is disagreement between the field-screening results and the laboratory results. Specifically, the field-screening analyses included four "over-readings" (i.e. the field screening indicated a PCB concentration of "greater than 10 ppm or greater than 50 ppm", when the actual concentration, as verified by the off-site laboratory analysis, was much less than 10 ppm. Malcolm Pirnie contacted the field-screening-kit manufacturer regarding this matter, and our inquiry revealed that the probable reason for the over-readings was that the substrate provided with the screening kit was contaminated, resulting in higher reported concentrations than were actually present. Fortunately, the substrate contamination could not result in "under-readings". This means that any values reported as "less than 10 ppm" by the screening kit are valid.

A second observation is that the red-stained soil, which was sampled during the initial excavation of TP-1 and found to contain a high concentration of the PCB Aroclor 1242, was not identified in any of the samples recovered from the borings advanced during this delineation effort. This suggests that the PCB-contaminated soil was very localized, and agrees with the screening and laboratory analytical results.

The third, and most important, observation is that the concentration of PCBs detected in the subsurface soil surrounding TP-1 are lower than the NYSDEC cleanup goal for subsurface soils of 10 ppm.

An additional observation merits discussion. As you know, the PCB-contaminated, red-stained material that was originally excavated and stockpiled from the test pit was returned to the test pit during backfilling, as directed by the NYSDEC. This material remains at and near the surface (we observed a small amount of the red-stained soil at the surface during the field screening, where TP-1 had been backfilled). A sample of this material was collected and screened in the field; however this sample was not sent to the off-site laboratory. Although the results of the field screening (>50 ppm) may be artificially high, Malcolm Pirnie recommends excavating the red-stained soil, and confirming the removal by collecting and analyzing post-excavation samples. Our field observations suggest that this material is confined to the upper few feet of the southeast quadrant of the backfilled test pit. If you desire, we can provide you with a brief scope-of-work and cost estimate for implementing this task.

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Malcolm Pirnie has been pleased to assist you in this matter.

Very truly yours,

MALCOLM PIRNIE, INC.

Keith A. White
Project Hydrogeologist

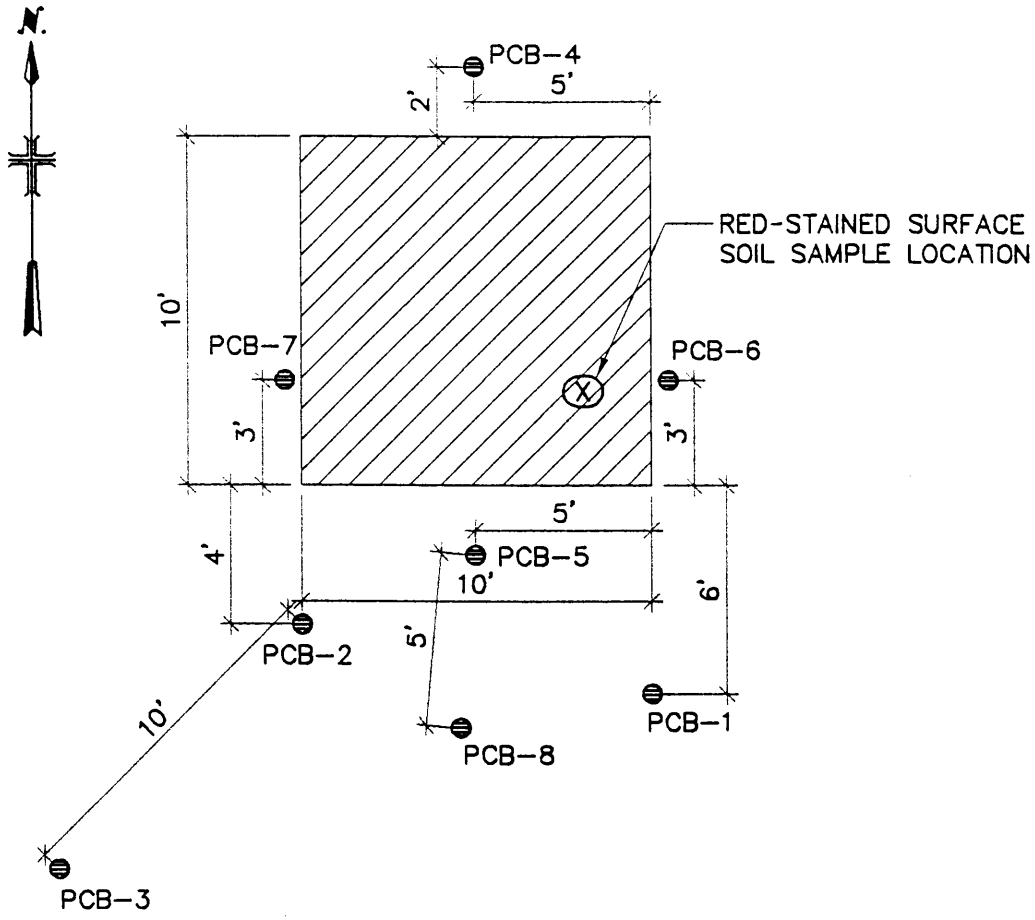
jml

cc: Tom Suozzo, NYSDEC
Richard Brownell, NNJ
Ken Goldstein, ALB
File 2435-005

TABLE 1: PCB FIELD-SCREENING RESULTS
GAF PARKING LOT SITE
BINGHAMTON, NEW YORK

LOCATION	SAMPLE	DEPTH (FBLS[1])	RESULT[2] (ppm)	LABORATORY ANALYSES	
				RESULT[3] (ppm)	PCB-TYPE
PCB-1	S-1	2-2.5	<10		
	S-2	3.5-4	<10		
	S-3	4.5-5	<10		
PCB-2	S-4	2-2.5	<10	0.080	Aroclor 1260
	S-5	3.5-4	<10		
	S-6	4.5-5	<10		
PCB-3	S-7	2-2.5	<10		
	S-8	3.4-4	<10		
	S-9	4.5-5	<10		
PCB-4	S-10	2-2.5	<10		
	S-11	3.5-4	<10		
	S-12	4.5-5	<10		
PCB-5	S-13	2-2.5	>50	0.24	Aroclor 1254
	S-14	3.5-4	>50	0.78	Aroclor 1242
	S-15	4.5-5	>10	<0.02	See note 4
PCB-6	S-16	2-2.5	<10		
	S-17	3.5-4	<10	<0.02	See note 4
	S-18	4.5-5	<10		
PCB-7	S-22	2-2.5	>10	<0.2	See note 4
	S-23	3.4-4	<10		
	S-24	4.5-5	<10		
PCB-8	S-19	2-2.5	<10		
	S-20	3.5-4	<10	<0.02	See note 4
	S-21	4.5-5	<10		
PCB-9[5]	S-22	NA[6]	NA	<0.2	See note 4
See note 7	R.S.	0-0.2	>50		
NA	Equipment Blank	NA	NA	<0.1	See note 4

Notes: [1] FBLS = Feet below land surface.
[2] Field-screening kit calibrated to Aroclor 1242.
[3] Method EPA 8080
[4] No PCBs of any type detected in this sample.
[5] This sample is a blind duplicate of S-22.
[6] NA = Not applicable.
[7] This sample represents a surface-soil sample of red-stained (R.S.) soil; see Figure 1 for location.



= LIMITS OF TEST PIT TP-1

NOT TO SCALE

MALCOLM PIRNIE	GAF CORPORATION GAF PARKING LOT SITE	PCB–DELINEATION SCREENING LOCATIONS	MALCOLM PIRNIE, INC. FIGURE 1