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# Phase II Investigation
# 1201 14th Avenue
# Oakland, California

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The two samples from the oil reservoirs were analyzed for pesticides and PCBs by EPA Method 3580/8080. The results indicated 6.4 mg/kg of Aroclor 1232, a common PCB. The results can be found in Table 2 and in Appendix C.

Suspect ACM identified at the Site include: vinyl floor tile and sheeting, tile and sheeting mastic, and ceiling tiles. These suspect materials were sampled in limited quantities. All of the suspect materials appeared to be in relatively good condition and were non-friable. Five samples from the building were analyzed. The analyses indicated that one sample, the beige floor tile with brown streaks contained asbestos. The four other sample analyses did not detect asbestos. Results can be found in Table 3 and Appendix C.

Table 1

Ground Water Analysis Results

| Sample | Analysis | Constituent | Result |
|---|---|---|---|
| 01-Water | Pesticides/PCBs 608/8080 | PCBs | 6.4 ug/L |
| 02-Water | TPH/8015 | Diesel | 190 ug/L |
| 03-Water | EPA 8010 | 1,1-Dichloroethane | 15 ug/L |
| | | cis-1,2-Dichloroethene | 19 ug/L |
| | | trans-1,2-Dichloroethene | 4 ug/L |
| | | 1,1,1-Trichloroethane | 3 ug/L |
| | | Trichloroethylene | 12 ug/L |

**Table 2**

**Oil Analysis Results**

| Sample | Analysis | Constituent | Result |
|---|---|---|---|
| 01-Oil | Pesticides/PCBS EPA 608/8080 | Aroclor 1232 | 6.4 mg/kg |
| 02-Oil | Pesticides/PCBs EPA 608/8010 | PCBs | N.D. |

**Table 3**

**Asbestos Analysis Results**

| | | |
|---|---|---|
| 500-01 | Floor tile with yellow streaks | N.D. |
| 500-02 | Mastic (tile with yellow streaks) | N.D. |
| 500-03 | Floor tile beige with white streaks | 5% Asbestos |
| 500-04 | Mastic (tile with yellow streaks) | N.D. |
| 500-05 | Ceiling tile | N.D. |

## 4.0 Discussion

### 4.1 Conclusion

The results of the Phase II sampling at 1201 14th Avenue in Oakland, California indicate the following:

- Chlorinated solvents are present in the ground water. The levels are just above the maximum concentration levels for ground water. These solvents may have been used in the repair shop during its years of operation, or may have migrated onto the site from a neighboring property. In addition, total petroleum hydrocarbons identified as diesel fuel were found in the ground water.

- The analysis of the hydraulic fluid found in the reservoirs in the garage area indicated 6.4 mg/kg of PCB in the oil in one of the two reservoirs sampled. 50 ppm of PCBs is traditionally used as the action level for hazardous classification.

- Asbestos containing materials (ACM) are generally divided into two categories; friable and non-friable. Friable ACM is loosely defined as those materials which can result in the release of airborne fibers through the exertion of hand pressure. This would include such materials as spray-applied fireproofing and pipe insulation. Non-friable ACM is defined as those materials which do not release airborne fibers through the exertion of hand pressure. These would include such materials as transite panels and vinyl floor tiles (VFT).

  In 1971, under the E.P.A. Toxic Substances Control Act (TSCA), the manufacturing of friable asbestos pipe insulation was banned. In 1973 the EPA, under the National Emission Standard for Hazardous Air Pollutants (NESHAP), banned the manufacturing of friable, spray applied asbestos fireproofing. In 1978, NESHAP banned the manufacturing of spray applied acoustical ceilings and all other forms of spray applied friable asbestos. Nevertheless stockpiled friable asbestos building materials remained in use. No manufacturing bans on non-friable ACM were implemented until 1989, therefore it is not uncommon to find applications of non-friable asbestos containing materials still in use today. Analysis of the five suspect asbestos containing material samples indicated that 312 square feet of floor tile is asbestos containing.

## 4.2 Recommendations

The site is located in an area which does not normally use ground water as a drinking water source, however California environmental regulations require that the owner of a contaminated site notify the proper regulatory authorities of all soil and groundwater contamination. In this case, the proper authority is the Alameda County Public Health Agency.

### 2.3 Oil Sampling

Samples were taken from two of the six hydraulic fluid reservoirs located in the garage area of the building on the site. The samples were taken in two 40 ml glass bottles. The samples were immediately placed on ice and transported under chain of custody procedures to Curtis & Tompkins Laboratory. Chain of custody records are shown in Appendix D.

### 2.4 Asbestos Sampling

The building located at 1201 14th Avenue was inspected for the presence of suspect asbestos containing material. The inspection revealed suspect asbestos containing floor tiles and ceiling tiles. A total of five samples were taken from the building. The samples were analyzed by Polarized Light Microscopy (PLM) by H+GCL Analytical Services Division. This laboratory is accredited by the National Institute for Standards and Technology under the National Voluntary Laboratory Accreditation Program as mandated by the EPA under AHERA. These samples were analyzed according to the EPA-approved method of PLM.

Using PLM, the analyst is able to determine the type and concentration of asbestos in material samples. The estimated asbestos concentration is given as a percentage of the total area of the samples analyzed. The limit of detection for this method is one percent. PLM analysis cannot always locate and identify very small, thin asbestos fibers frequently found in low concentrations and concealed within the tile matrix binder. Thus, it has become standard industry practice to perform secondary Transmission Electron Microscopy (TEM) analysis of vinyl floor coverings and mastic prior to removal (even if PLM analysis did not detect asbestos). State of the art analysis for VFT involves "thermal ashing". Thermal ashing, when combined with an acid bath dissolves the vinyl floor tile revealing asbestos fibers bound in the tile matrix.

## 3.0 Results

Analysis of groundwater for pesticides and PCBs indicated that levels were below the detection limit. Analysis of groundwater for petroleum hydrocarbons indicated 190 ug/L in the diesel range, and analysis for chlorinated solvents indicated [redacted] (micrograms per liter) of 1,1-Dichloroethane, 19 ug/L of cis-1,2-Dichloroethene, 8 ug/L of trans-1,2-Dichloroethene, 6 ug/L of 1,2-Trichloroethane, and 12 ug/L of Tetrachloroethylene. The results can be found in Table 1 and in Appendix C.

Analysis of the hydraulic oil from the reservoirs in the building indicates 6.4 mg/kg of PCBs. H+GCL recommends that the oil from the reservoirs be removed and disposed of by an oil recycling firm.

H+GCL recommends that the asbestos containing floor tile be removed by a California certified asbestos abatement contractor if it will be impacted by renovation and demolition activities.

Sincerely,

H+GCL

Sean McFadden

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Enclosures