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**SUMMARY OF RESULTS**

**09-29-92**

**DOE-FN/EPA**

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**ATTACHMENT**

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# ATTACHMENT 1

SUMMARY OF RESULTS

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SUMMARY OF TRENCHING RESULTS: OU 2 SOLID WASTE LANDFILL (SWL)

A total of three trenches were excavated in the Solid Waste Landfill (SWL), using a track-mounted backhoe equipped with a 36 inch wide bucket. The trenches reached a maximum depth of 12 feet below surface grade. Soil samples were field screened for volatile organics and beta/gamma radiation. The soils and excavated material were visually inspected and characterized. The results and distribution of material were recorded in field logs kept by the project geologist.

Waste material was found to be dispersed within the upper 10 feet of soil. Each trench contained a unique accumulation of wastes, except for bagged trash which was distributed throughout the SWL. The types of materials identified includes bagged and loose asbestos materials, ceramic tiles, glass acid bottles, possible magnesium fluoride, rubber hoses and tubing, medical waste, fire hoses, steel cables, full and empty paint cans, possible yellow cake material, asphalt roofing material, respirator cartridges, and copper tubing. Approximately 25 percent of the waste material was classified by the project geologist as burnable, with the remaining 75 percent, not including the soil, as non-burnable. The actual percent of non-burnable material, including the soil, for the entire landfill is estimated at 90 percent.

In general, the beta/gamma activities and volatile organic concentrations for the excavated materials were at or near background levels. However, a beta/gamma activity of 900 cpm was found for the soil sample collected from the center of trench number three at a depth of six feet. Possible yellow-cake material, exhibiting a beta/gamma activity of approximately 50k cpm, was found in close proximity to this sample. Above background levels of volatile organics were detected in soils containing plastic bags, rubber, and asphalt

roofing materials. A reading of approximately 200 ppm occurred when full paint cans were encountered in trench number 3.

Leachate (wastewater) was encountered in all three trenches. A total of four samples were collected and analysed. The analytical results are currently in the validation process.

#### SUMMARY OF TRENCHING RESULTS: OU 2 SOUTH FIELD AREA 2

On July 29, 1992 the excavation of a trench began in the Southfield Area 2, which is located north of the Inactive Flyash Pile. This activity was conducted to characterize the three buried parallel trenches identified in a 1954 aerial photograph. The 100 foot long by 15 foot deep trench was completed on July 30, 1992, with no evidence of the three suspect trenches. The lithology consisted of the natural occurring clays and silts found in the glacial till for the Southwestern Ohio region, and appeared undisturbed. The overlying soil horizon appeared normal and also undisturbed. Groundwater was encountered at a depth of between 12 to 15 feet, in a "channel sand", fifteen to twenty feet east of the western most point of the trench. At approximately forty feet east of the western most point, and at a depth of approximately two feet, an electrical conduit was uncovered. The two and one half foot conduit was apparently scrap. Nothing else was uncovered in this trench.

On July 31, 1992 it was determined that the completed trench may have been north of the suspect trenches. A further review of the existing photographs was conducted and an extensive field investigation was performed. On completion of the review and investigation, it was decided to excavate another trench 75 feet south of the initial trench.

The second excavation was initiated and completed on August 4, 1992. This trench was 100 feet long and twelve feet deep. The lithology and soil horizon was identical to the first trench, and groundwater was encountered in the "channel sand" at approximately the same expected location as the first trench. A large concrete block, approximately 2'x 3'x 1', was uncovered at a depth of six inches and forty feet east of the western-most point of the

trench. At the completion of this second trench no evidence of the three suspect trenches was encountered.

Field instrumentation surveys of both trenches did not show evidence of contamination.

Based on the above evidence the three suspect trenches identified in the 1954 aerial photo were probably shallow, backfilled, and covered with a layer of soil approximately two to three feet thick. This soil layer was in place long enough to develop a natural soil profile, thus obscuring evidence associated with the 1954 trenching activity. In addition, the planting and subsequent removal of pine trees from this area probably further masked any prior surface disturbance. The evidence also suggests these trenches may have been excavated as part of equipment training activity rather than waste or debris disposal related.