

17 August 1988

MEMORANDUM TO ED-FH FILE

SUBJECT: Trip Report, Former Lake Ontario Ordnance Works,
Lewiston/Porter Townships, New York

1. Field oversight was performed from 19 July through 22 July 1988, at the former Lake Ontario Ordnance Works (LOOW) located near Model City, New York. The Architect-Engineer (AE) responsible for performing this work was Acres International Corporation of Buffalo, New York. Field work scheduled during this visit consisted of the excavation and sampling of several test pits and the location and sampling of a buried TNT sewer line and a buried acid sewer line.
2. Synergist, of Scranton, Pennsylvania, was the subcontractor responsible for this phase of the work. Synergist employed the services of Gilarde Environmental Management for the backhoe and support work and also retained the services of an explosives consultant who was present during all field operations.
3. The same basic procedure was used during every excavation performed. Excavation was performed using a John Deere 690-C backhoe. Terry Shannon of Synergist directed all trenching activities. He also performed all logging and sampling and operated the air monitoring and radioactivity monitoring instruments. During actual excavation the number of personnel at the trenching site was limited to three as a safety precaution. During actual digging two people observed the operation through the window of the portable blast shield. After the bucket was withdrawn and had emptied, the pit was inspected, and air and radioactivity monitoring was performed using an OVA, an Explosimeter, and a Geiger Counter. A command post was set up several hundred feet away from the trenching site and communication was maintained with a two-way radio. Personal protective equipment consisted of Tyvek suits taped at the wrists and ankles, chemical resistant boots and gloves and a hard hat. During all trenching, and when anyone entered a pit, pressure-demand supplied-air respirators were worn. Each person also carried an escape SCBA.
4. Two test pits were excavated and sampled in Area C located immediately southwest of the existing closed Secured Landfill #7 (SLF-7). Selection of final locations of these pits was made based on the results of geophysical surveys and the two pits were located in areas which exhibited the clearest anomalies.

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5. Excavation and sampling of Test Pit C-2 (TP-C2) began on 18 July and was completed on 19 July 1988. Air and radioactivity monitoring results were negative. A portion of a concrete foundation was found and this was probably the cause of the geophysical anomaly. The completed size of TP-C2 was approximately 50 feet long, 4 feet wide, and 15 feet deep. The pit was shored using jacks and plywood. Three composite soil samples were taken at three depths: 5, 10 and 15 feet. After sampling was completed the pit was extended another 25 feet northward to attempt to locate the buried TNT sewer, but failed to locate it.

6. The second Area C pit, TP-C1, was excavated and sampled next. During excavation, large amounts of construction debris were found, consisting of bundles of wire and cable, and large pieces of concrete. At about 8 feet, water was encountered in the south end of the pit. Two composite soil samples were taken from TP-C1, one at 5 feet and one at 8 feet.

7. SCA Chemical Services, Inc. (SCA), operators of the secure landfills at the former LOOW, was stockpiling clay a short distance south of Area C and offered the services of one of their bulldozers to backfill the two pits. The A-E accepted this offer and backfilling of the two pits was quickly accomplished. The A-E stated that SCA had been cooperative and helpful during this project. During backfilling, the corners of the pits were staked for future survey.

8. On 20 July Synergist mobilized about 3/8 mile west of SLF-7 to attempt to locate the buried TNT sewer. The location of the trench was determined by Acres after studying old plans of the LOOW. At this location two trenches were excavated but the TNT sewer was not found.

9. One test pit in Area A, immediately north of SLF-7, was excavated on 20 July. Again, the location of this pit was determined from geophysical data. Metal drums were encountered at a depth of about 6 feet. The drums were found crushed and open and were laying in a water-filled cavity. Five drums were brought to the surface using the backhoe. All of the drums were crushed and open and samples were taken of the soil inside the drums. A brief reading of 8 ppm on the OVA occurred when the inside of one of the drums was checked but there were no other readings at any time. After sampling, the drums were overpacked

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in new, marked drums. Since the entire pit contained water and drums, soil samples were taken from material removed with the backhoe. The sample was collected by digging into the soil contained in the backhoe bucket. Two composite samples were taken in this manner, one at 5' and one at 8' below the water surface, at the north end of the pit where there were no drums. Samples of the water in the pit were also taken.

10. On 21 July the day was spent trying to locate the buried acid sewer. Original locations for excavating the acid sewer were examined closely and abandoned due to buried utilities and the close proximity of SCA's main effluent discharge pipeline. Acres decided to try to excavate near several old original LOOW buildings. Several trenches were dug with no success in finding the acid sewer. Acres stated that during their research of the site it appeared that large portions of both the TNT sewer and the acid sewer had been removed at various times but that exact locations were not given. Toward the end of the day Acres decided that more prudent use of the backhoe crew would be achieved by returning to Area A and performing additional trenching to try to define the areal extent of the buried drums. Acres advised KCDO-COE of this plan which was tentatively approved. Although formal approval of the extra work was not obtained Acres decided to proceed with the extra work the next day at their own risk.

11. On 22 July, Synergist excavated five additional test pits in Area A. These excavations tentatively indicated that the drums are confined to a small area in the southeast corner of Area A. These pits were not sampled.

12. It was felt that all work observed during this site visit was performed in a safe and prudent manner. Acres made a diligent effort to locate both of the buried sewers and it was felt that the decision to return to Area A to further define the extent of the buried drums was a prudent one.

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