



*Occurrence of Oil at East
Street Area 2/USEPA Area
4 - Fall 1997*

General Electric Company
Pittsfield, Massachusetts

February 1998

Table of Contents

Section 1 - Introduction	I-I
Section 2 - Methods and Protocols	2-I
Section 3 - Results of the Fall 1997 Monitoring Event	3-1
3.1 Groundwater Conditions	3-1
3.2 Oil Occurrence	3-1
3.2.1 North of the Railroad Tracks	3-2
3.2.2 Former Tank Farm Area	3-2
3.2.3 South of East Street	3-2
3.3 Oil Recovery	3-3
Section 4 - Riverbank STM Evaluation	4-1
4.1 General	4-1
4.2 Summary of Riverbank Inspections	4-2
4.3 STM Assessment	4-2
Section 5 - Summary	5-1

REFERENCES

TABLES

- 1 Summary of Water Table and Oil Thickness Data - Fall 1997
- 2 Summary of Oil and Groundwater Recovery Volumes - July 1997 through December 1997
- 3 Summary of Downtime For Active Oil Recovery Systems -July 1997 through December 1997

FIGURES

- 1 Groundwater Elevation Contour Map - October 1997
- 2 Oil Plume Map - October 1997
- 3 Riverbank Area
- 4 Riverbank Area Groundwater Elevation Contour Map - 7/2, 3/97
- 5 Riverbank Area Groundwater Elevation Contour Map - 8/13, 14/97
- 6 Riverbank Area Groundwater Elevation Contour Map - 9/3, 5/97
- 7 Riverbank Area Groundwater Elevation Contour Map - 10/1, 2/97
- 8 Riverbank Area Groundwater Elevation Contour Map - 11/5, 7/97
- 9 Riverbank Area Groundwater Elevation Contour Map - 12/10, 11/97

APPENDICES

- A Riverbank Groundwater Elevations and Oil Thickness - East Street Area 2/USEPA Area 4 - July through December 1997

Section 1 - Introduction

This document summarizes the activities and results of recent oil and groundwater monitoring conducted within a portion of the General Electric Company's (GE's) Pittsfield, Massachusetts facility. Specifically, between September 29, and October 9, 1997, Blasland, Bouck & Lee, Inc. (BBL) conducted the fall semi-annual monitoring event which is required each year for the area designated as East Street Area 2/USEPA Area 4. Field activities associated with the "Fall 1997" event involved the measurement of the water table elevation at numerous wells in this area, as well as the thickness of any floating oils (if present) in these wells. Subsequent evaluations following each monitoring round include an assessment of groundwater flow patterns and subsurface oil accumulations.

This monitoring program, when first implemented in 1980, consisted of quarterly monitoring of groundwater levels and oil thickness present in various wells positioned across the site. Since 1981, the frequency of monitoring was reduced to a semi-annual basis, but still maintained the same monitoring components. This semi-annual monitoring program has continued to date and is currently being performed as part of Short-Term Measure (STM) activities pursuant to the Massachusetts Contingency Plan (MCP), and as part of Interim Measure activities pursuant to the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA).

This document also summarizes several other related activities performed between July and December 1997 dealing with oil recovery and containment.

Section 5 - Summary

1. The direction of groundwater flow is generally consistent with prior monitoring events, and the installation of new wells over the past year has furthered the understanding of groundwater flow.
2. The average Fall 1997 corrected water table elevations were approximately 8 to 13 inches lower than those recorded in Fall 1996. This is likely the result of a relatively low precipitation season.
3. Slight variations have been noted in the Fall 1997 oil plume configuration; these variations are primarily attributed to the natural fluctuation in the groundwater depth and/or the ongoing recovery operations. The installation of several new monitoring wells southwest of 64S caisson has also provided further detail on the oil plume in this vicinity.
4. A total of approximately 15,000 gallons of oil were recovered at the site and approximately 22,000,000 gallons of groundwater were treated at the 64G groundwater treatment facility between July and December 1997. The volume of oil recovered is approximately 7,800 gallons less than the oil recovered between July and December 1996. This is primarily due to a decrease of recovered oil from wells 40R/64R.
5. Groundwater pumping from recovery wells RW-1(X) and RW-2(X) produces two overlapping cones of influence that provide hydraulic control near the riverbank and locally reverse the natural groundwater elevation gradients. These riverbank STM activities have apparently been effective in controlling and reducing the bankseeps of oil into the boomed area of the Housatonic River.
6. Monitoring, maintenance, and trouble-shooting activities were routinely performed in compliance with regulatory agency requirements. GE inspected and operated the oil-recovery systems in East Street Area 2/USEPA Area 4 and routinely determined if the systems were operating properly. Repairs, if needed, were completed as soon as possible.
7. The installation of new monitoring wells to the west of the 64S caisson indicates that a portion of the oil plume is beyond the recovery zone of that caisson. This fall, GE has installed a new recovery system in this area as proposed in a separate report by Golder Associates, submitted in July 1997 and approved by the Agencies via letter dated October 8, 1997. This new system will begin operations in early 1998, when a pipeline and electronic control system is completed.