

Norwalk Tank Farm Update

***Presented to the Norwalk Tank Farm
Restoration Advisory Board***

April 23, 1998

Presentation Overview

Topics to be Covered

- OCCS update
- Remediation update
- Pressure Testing Update

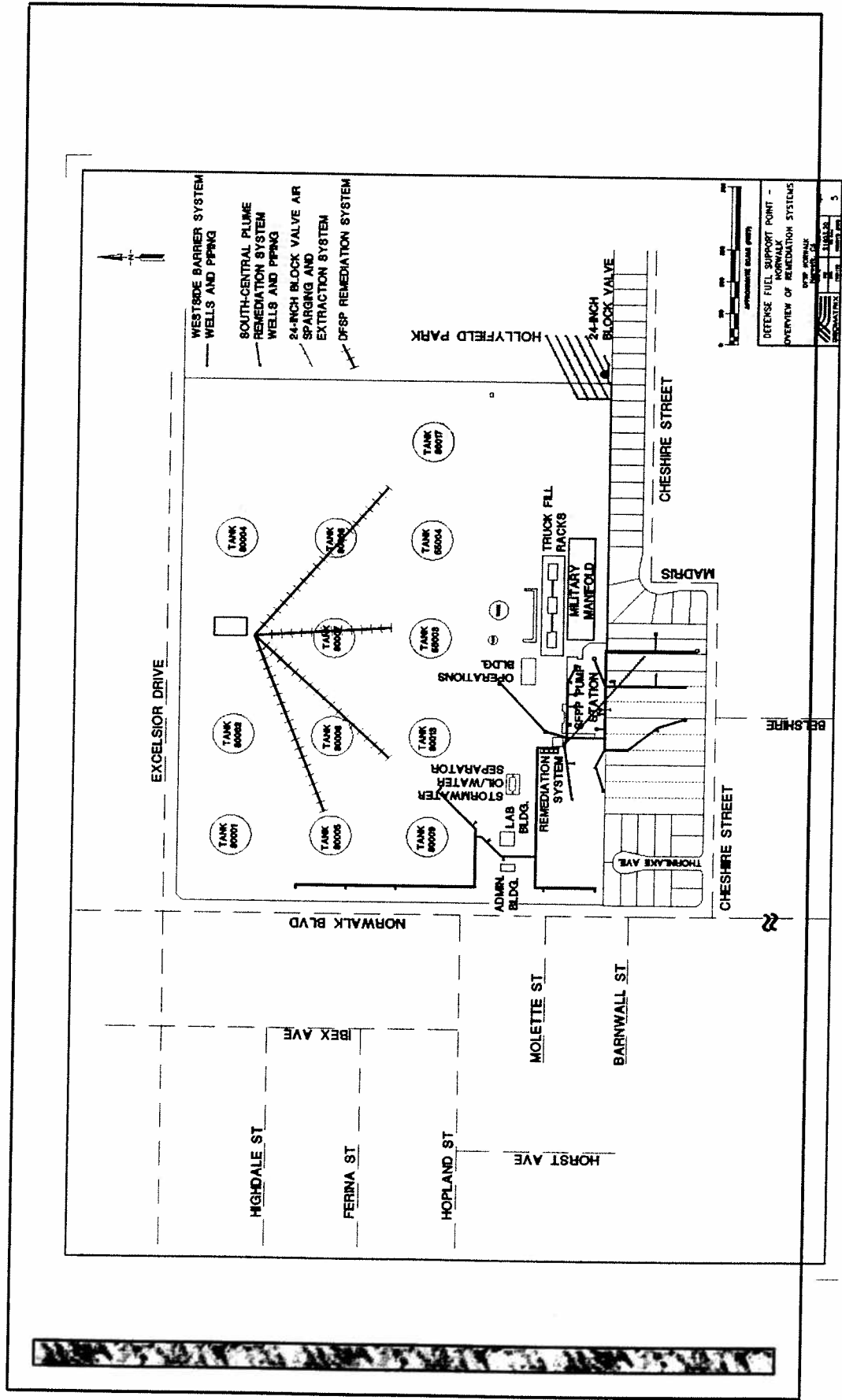
OCCS Update

- Draft RBCA Workplan completed
- Incorporated comments from RAB members
- Community Meeting was held on March 12, 1998 in the Norwalk City Council Chambers
- Received some comments in writing which will be incorporated for the final version
- Final Workplan to be submitted to the RWQCB in next few weeks for their review
- Pending approval work will begin this quarter

SUMMARY OF REMEDIATION PROGRESS

- System placed in operation September 15, 1995
- System has operated 13900 hours since startup

Map of Current Remediation Systems



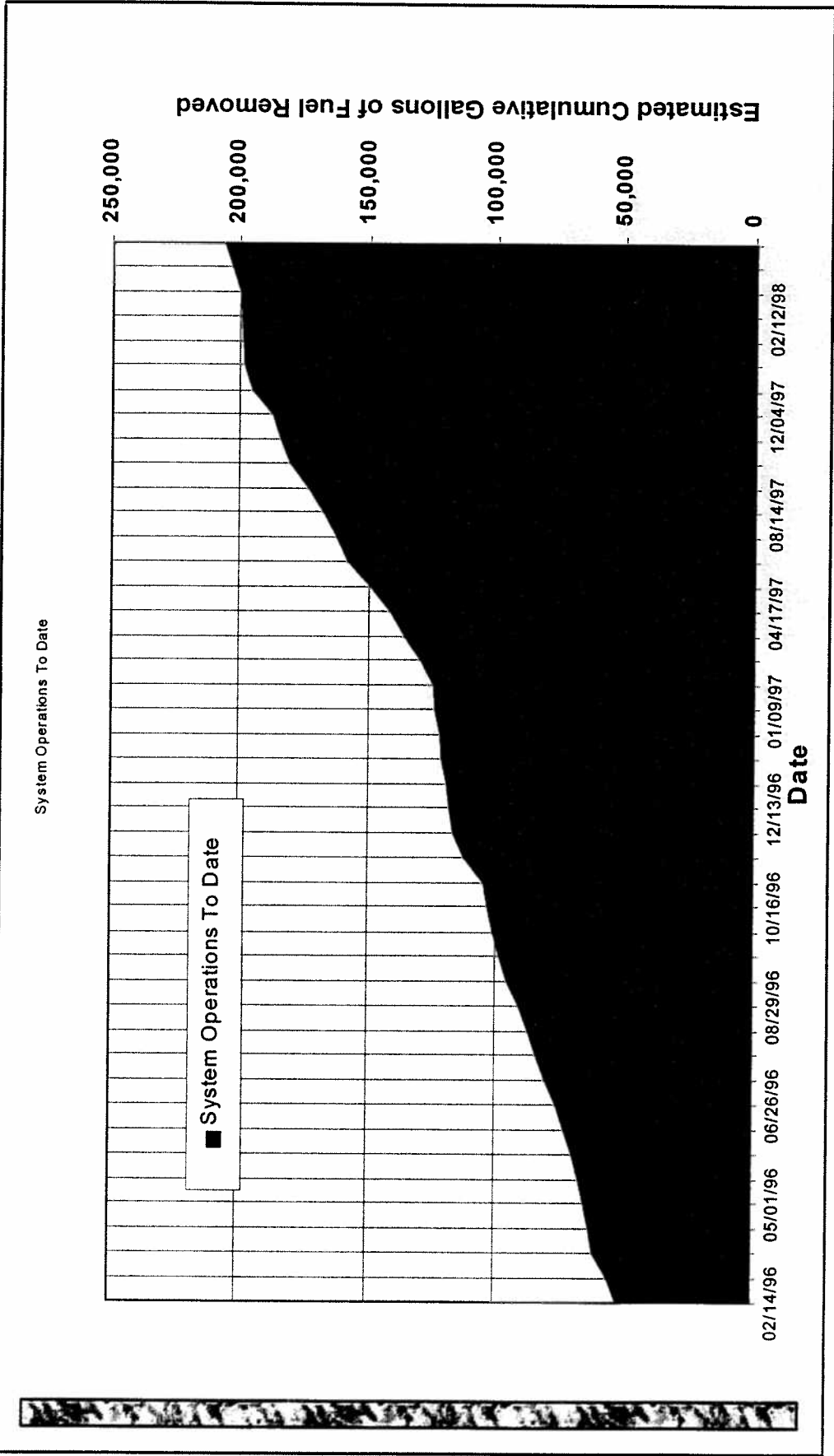
Soil Vapor Extraction System Operations Summary

- 22 Vapor extraction wells online and in use
- Approximately 208,000 gallons of fuel removed from soil and destroyed
- Approximately 8,000 gallons of fuel removed since January RAB meeting

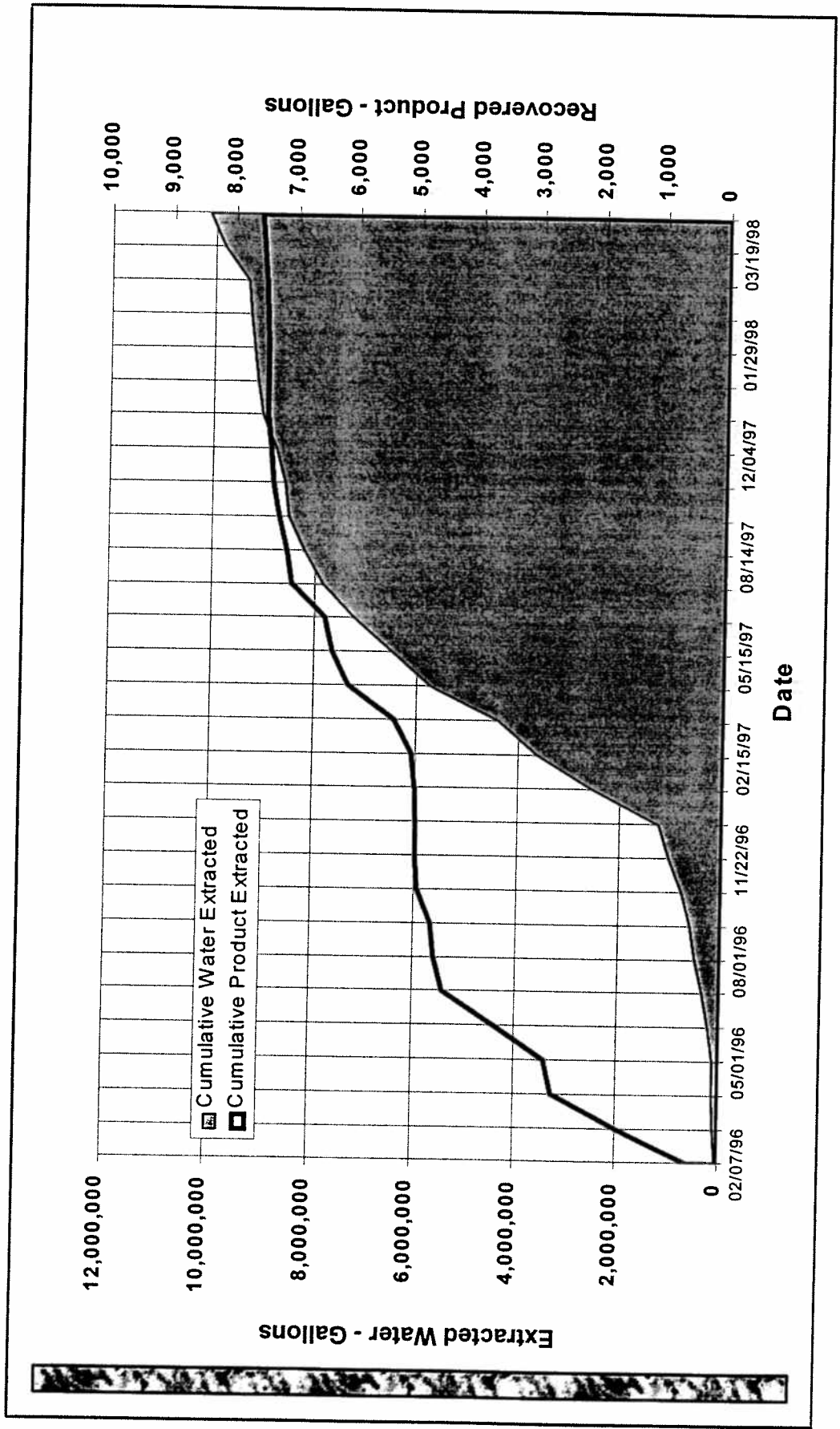
Product Recovery/West Side Barrier System Operations Summary

- **6 Product/groundwater extraction wells online in South/Central Plume area**
- **9 West Side Barrier wells operating**
- **Approximately 10.1 million gallons of water pumped and treated (0.9 million gallons since January RAB meeting)**
- **Approximately 7,580 gallons of liquid fuel recovered**
- **Approximately 130 gallons of liquid fuel recovered since January RAB meeting**

DFSP NORWALK - SOUTH CENTRAL PLUME SUMMARY OF VAPOR PHASE EXTRACTION OPERATIONS



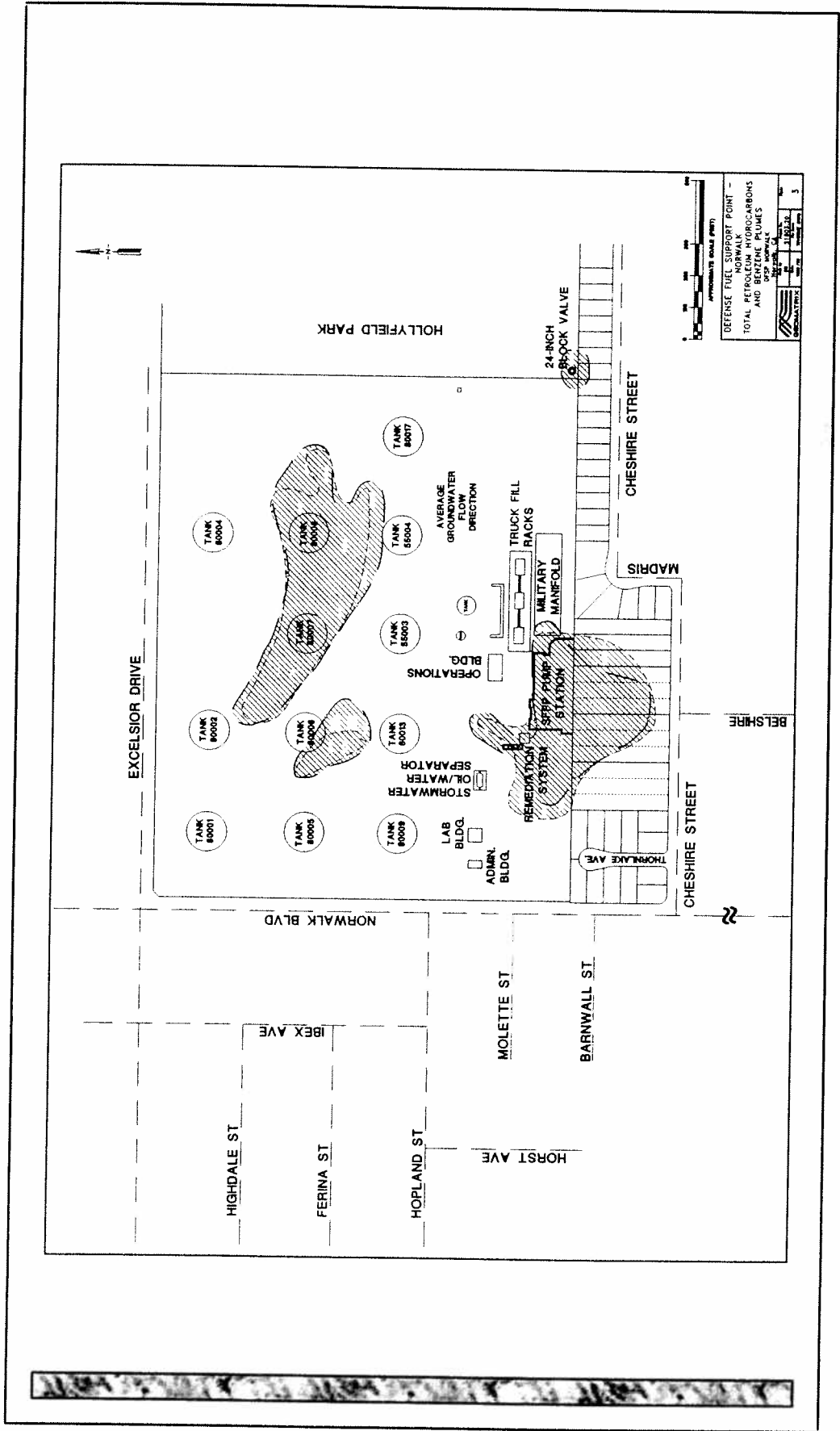
DFSP NORWALK
 SOUTH CENTRAL PLUME AND WEST SIDE BARRIER SYSTEM
 SUMMARY OF GROUNDWATER AND
 PRODUCT RECOVERY SYSTEM OPERATIONS



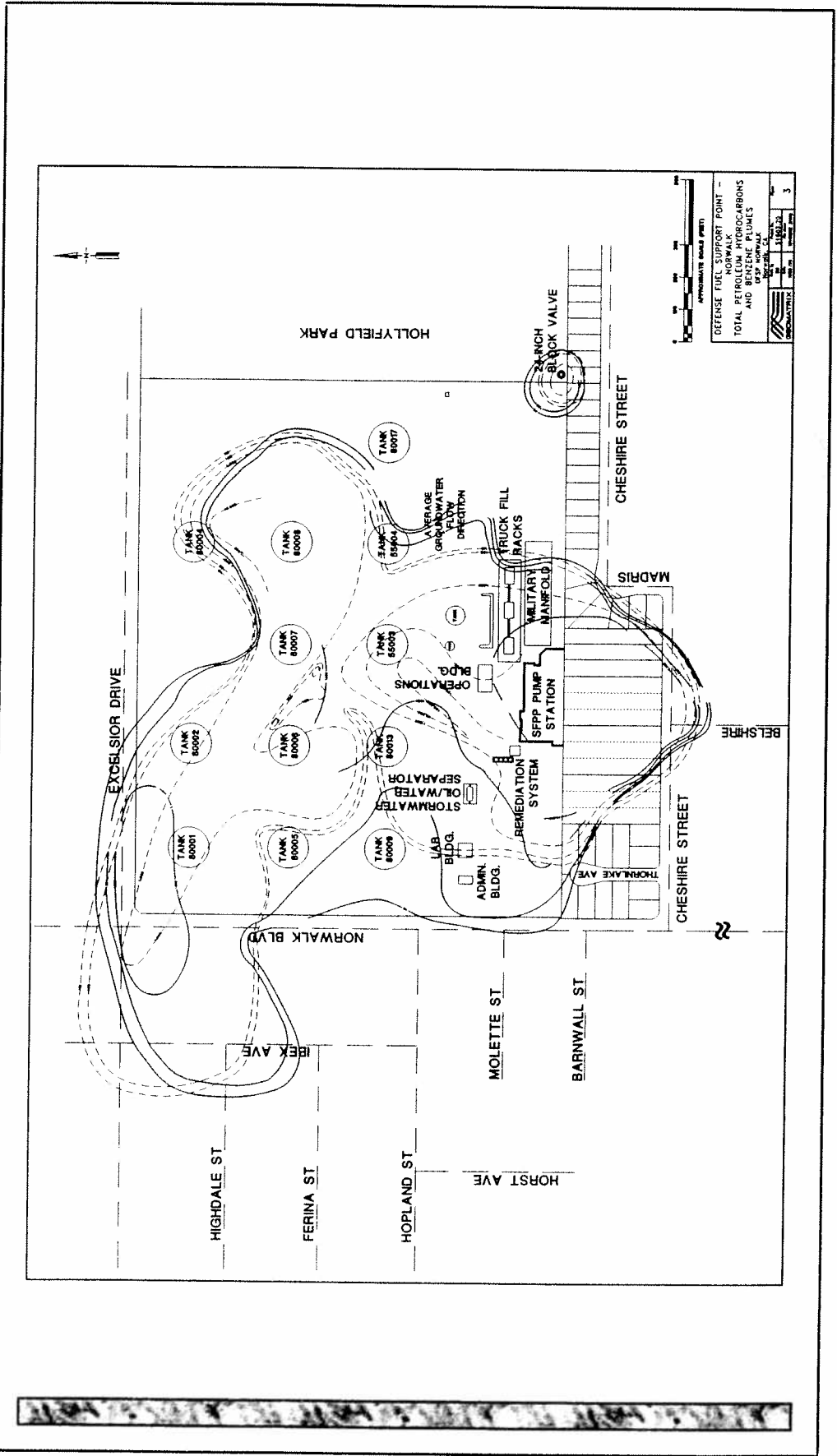
24-Inch Valve Plume System

- No product measured in GMW-36 during this sampling round.
- TPH, BTEX, and MTBE concentrations decreasing in most wells

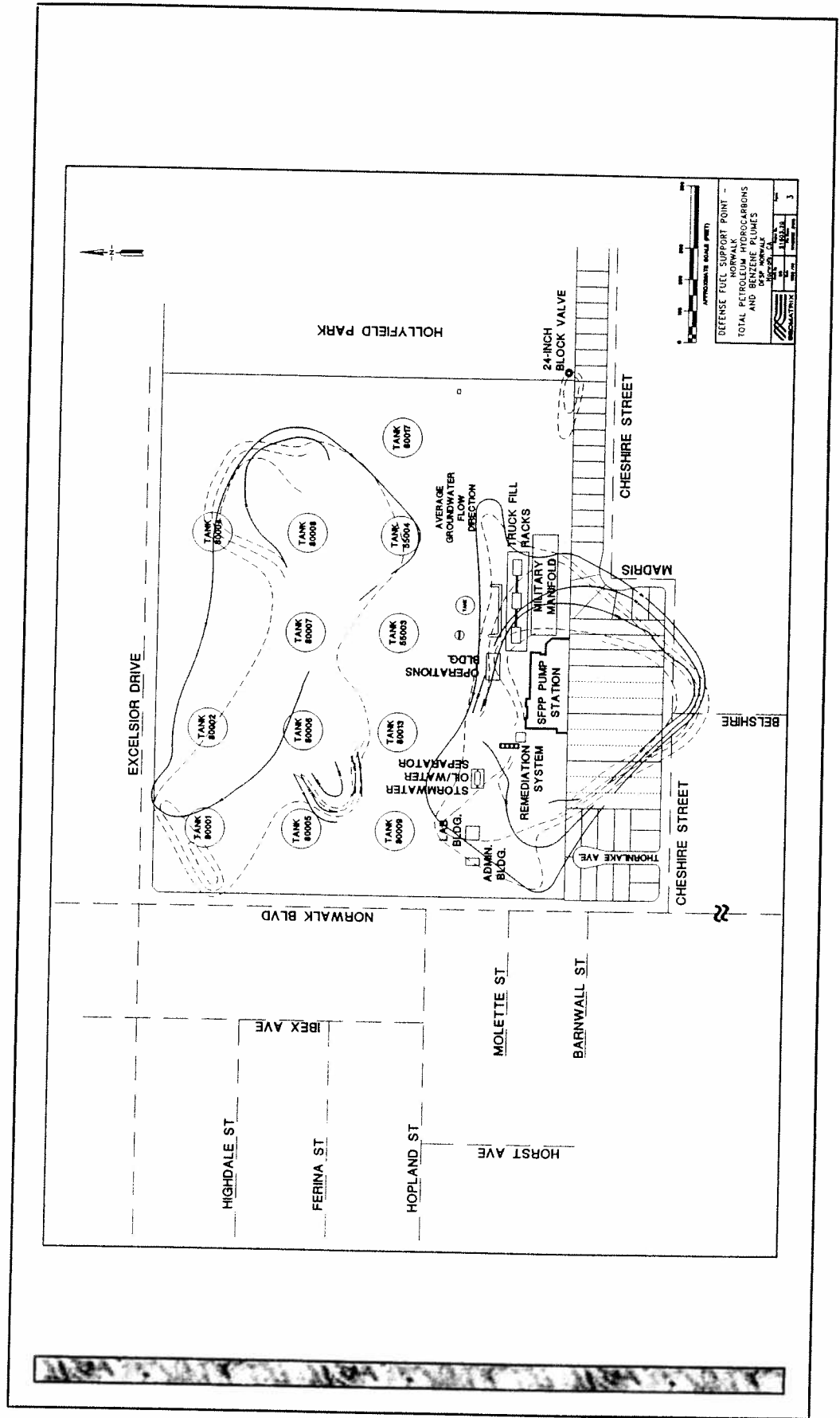
Free Product Plumes



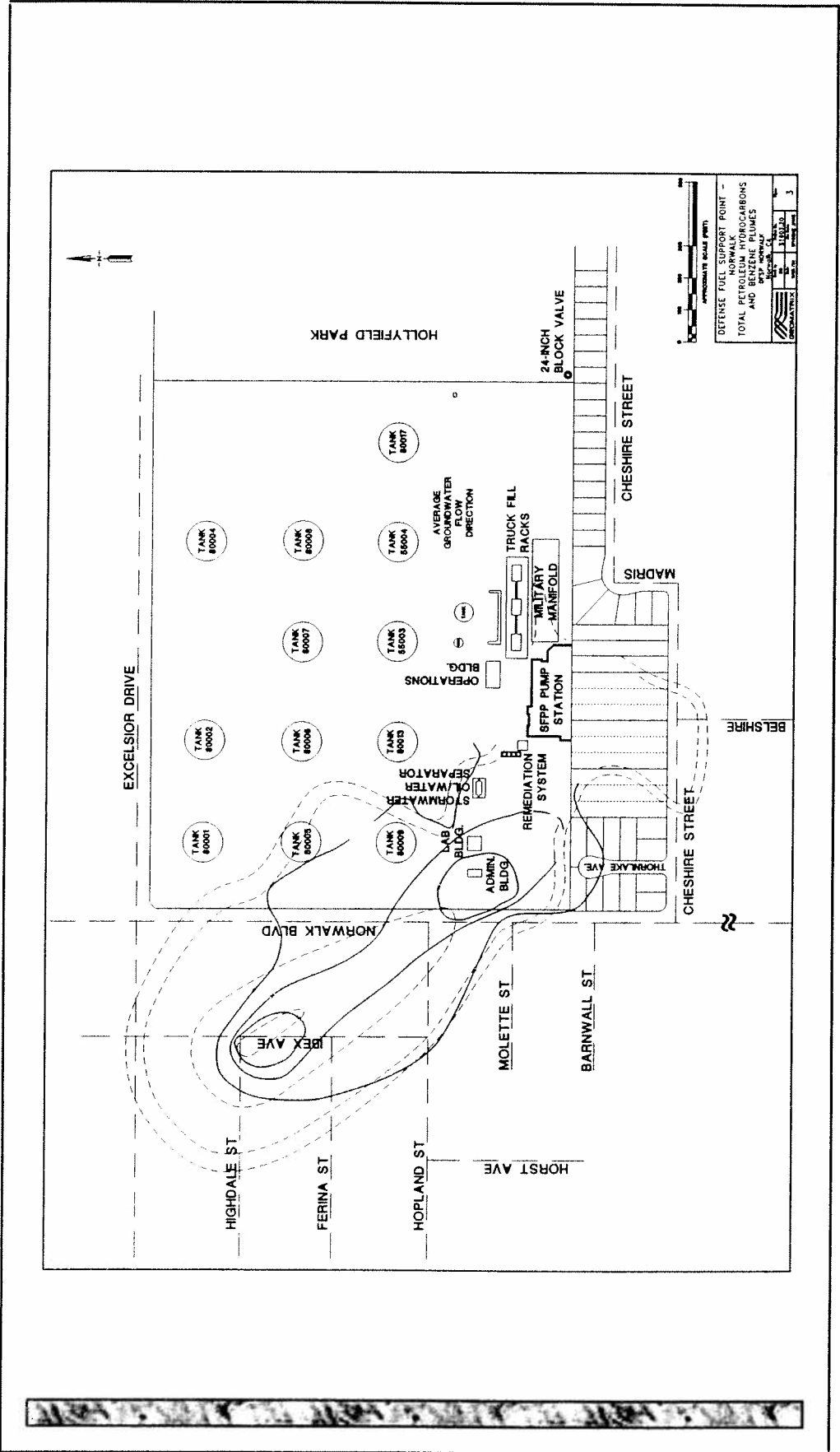
Groundwater Plume-TPH



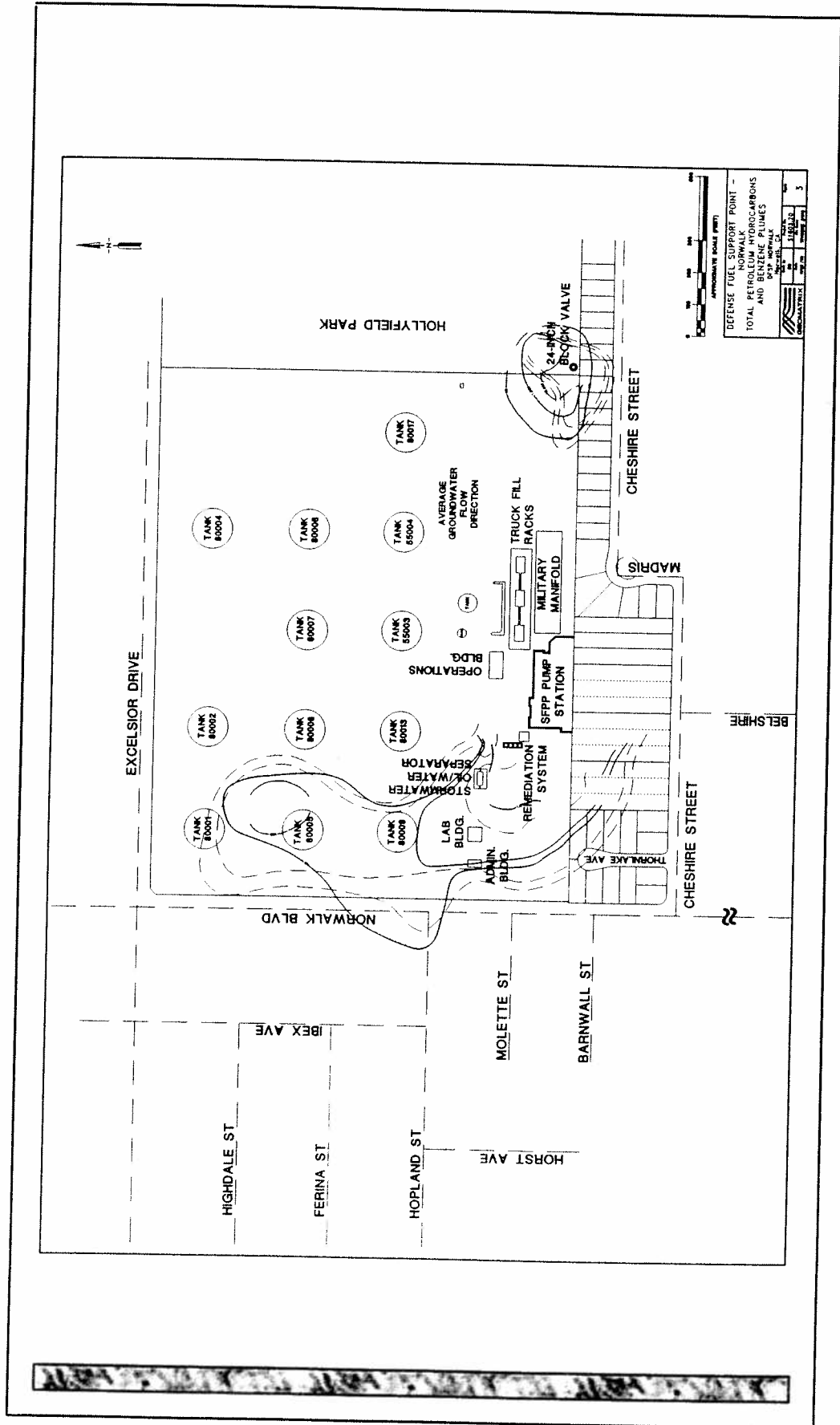
Groundwater Plumes-Benzene



Groundwater Plume-1, 2 DCA



Groundwater Plume-MTBE



Enhancements to Remediation System

- Evaluation of Product Recovery Wells
 - Redevelop existing wells
 - Re-drill new extraction wells
 - Technology Evaluation of in well product recovery
- Treatment System Capacity Evaluation
 - Total flow (vapor and liquid)
 - Mobil system for product removal

SFPP Pressure Testing

- See handout of Letters from RWQCB and KMEP
- 1991 Pressure Tests Results / Discussion
- 1998 Pressure Test Results and Schedule for Completion

Groundwater Monitoring Update

- Kinder Morgan and DFSC members are reviewing the list of wells monitored to confirm the next sampling event
- In addition we are identifying a few select wells to be monitored quarterly as “Sentry” wells
- To better monitor efficiency of product recovery, Kinder Morgan will begin gauging select wells on a more frequent basis and reporting the data in the semi-annual report