

Norwalk Tank Farm Cleanup Overview

Congressional Town Hall Forum

*Defense Energy Support Center-
Americas West*

January 26, 2008



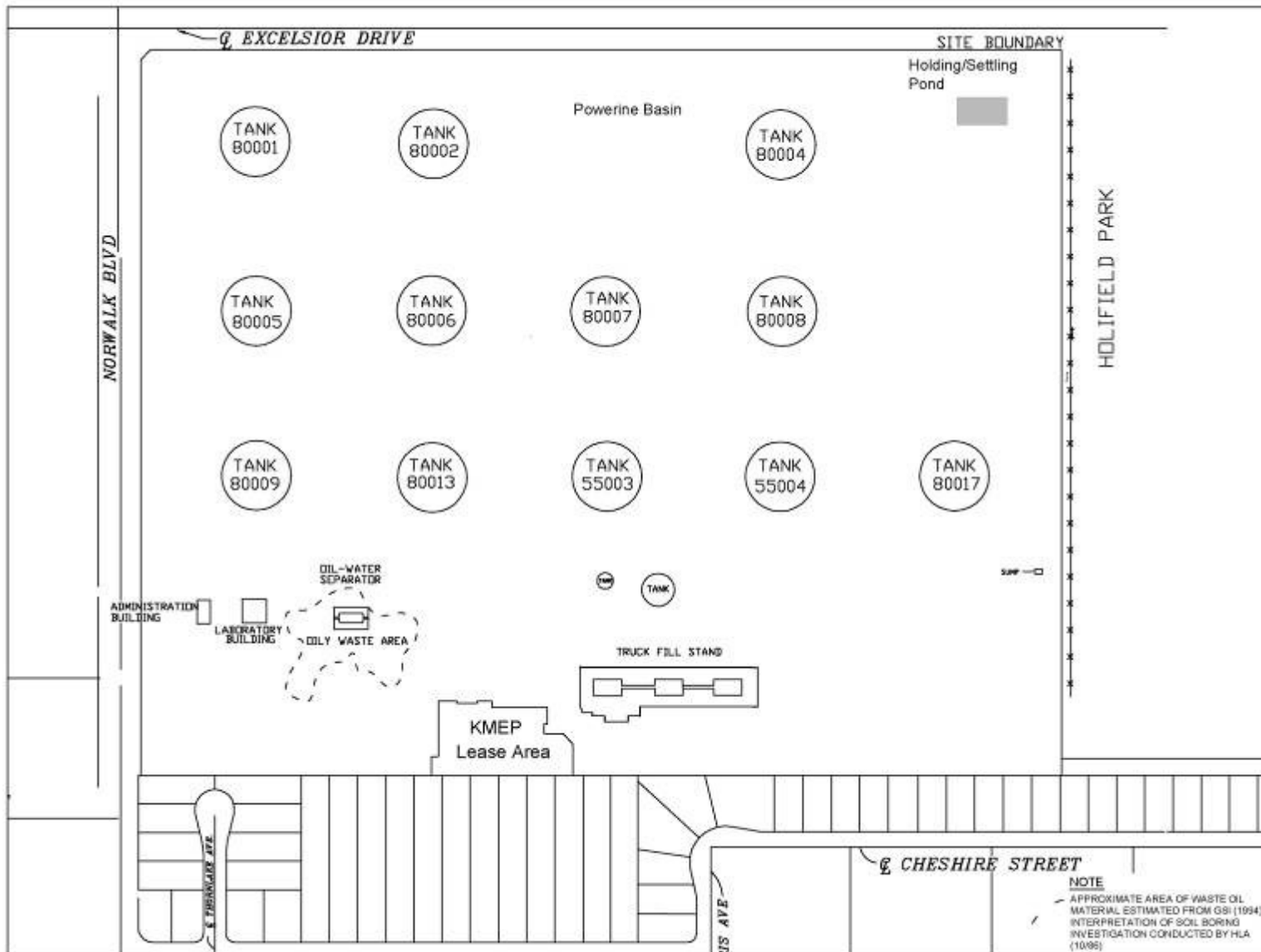
Presentation Overview

- Areas of Concern
- Background
- Tank Farm Cleanup Highlights
- Holifield Park Status
- Cleanup Progress
- 1996 through 2007 Plume Maps
- Future Cleanup Actions

Areas of Concern

- Central Tank Farm
- Truck Fill Stand
- Eastern Boundary
- Oily Waste
- Powerine Basin
- Holifield Park (off-site)

Tank Farm Site Layout



Tank Farm Aerial Photo



Background

- Soil and groundwater under the tank farm and under the northwestern border of Holifield Park contain hydrocarbons mainly consisting of jet fuels
- Systems were installed to cleanup these hydrocarbons in soil and groundwater
- Objective of these cleanup systems is to reduce the hydrocarbon concentrations in groundwater to below cleanup levels as approved by the Regional Water Quality Control Board

Tank Farm Cleanup Highlights

- 1996 cleanup activities began
- April 1999 - 80 cubic yards of soil near the truck fill stand was removed
- June 2004 - 500-gallon underground storage tank and thermal oxidizer near the truck fill stands was removed
- March 2005 - no further action obtained from the RWQCB at the Oily Waste Area
- December 2005 - 500-gallon underground storage tank used for storage of jet fuel was removed from the Powerine Basin

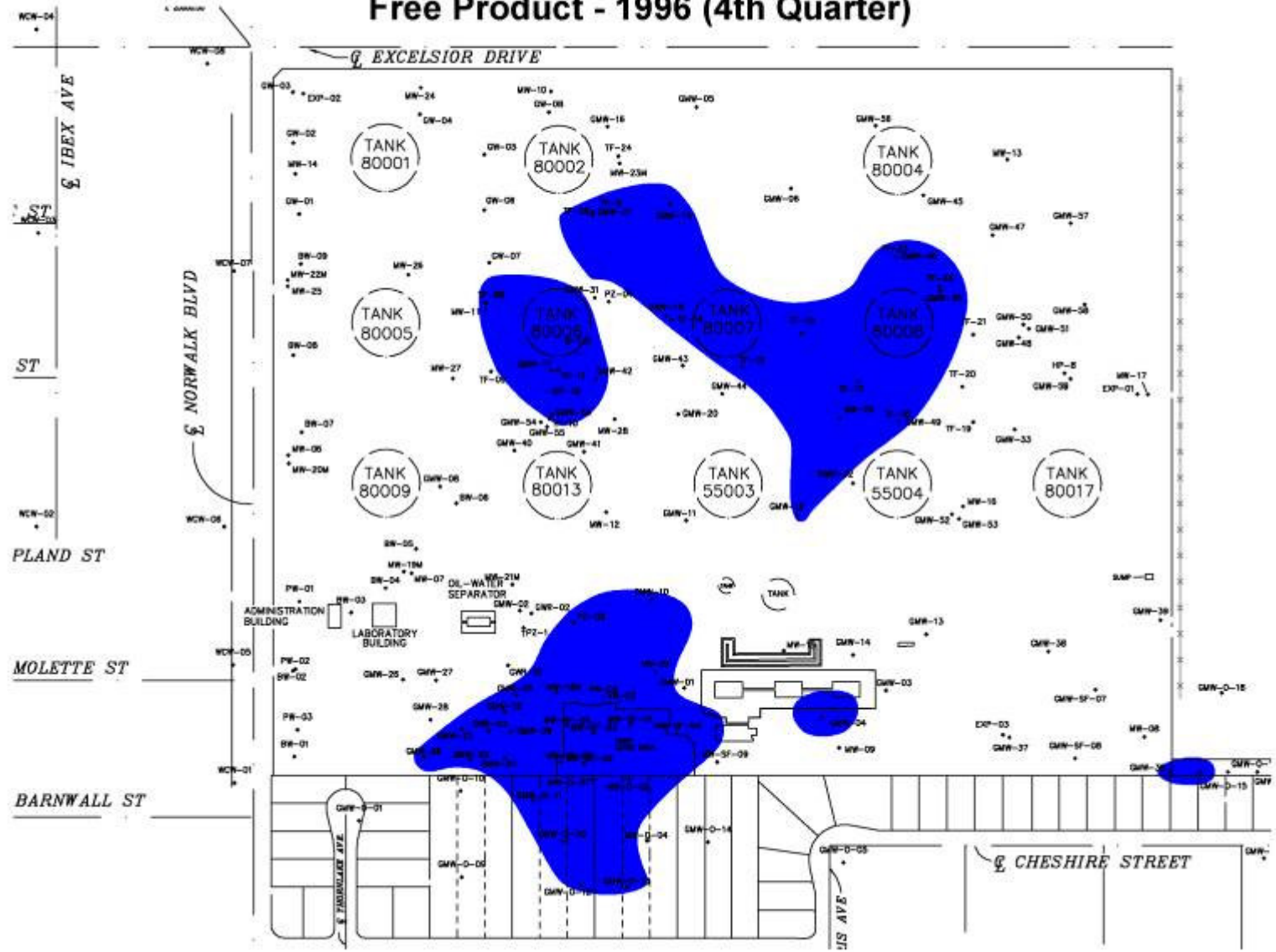
Holifield Park Status

- Located off-site to the east of the tank farm
- Investigations conducted in December 2006 and June/July 2007, final report just submitted
- **NO RISK TO PARK USERS**
- Work plan submitted for additional investigation and to install a groundwater cleanup system

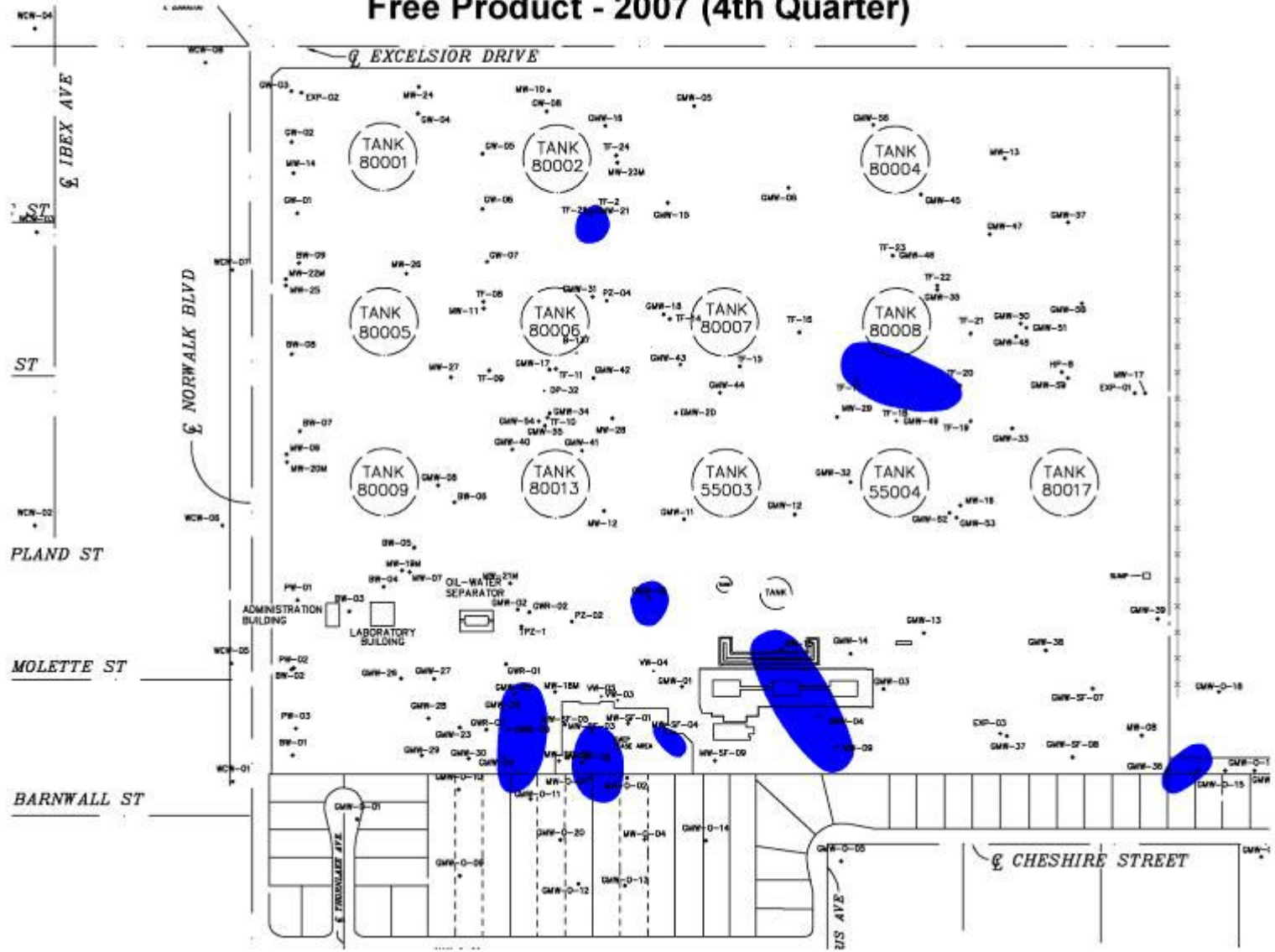
Cleanup Progress

- System performance since April 1996 through September 2007
 - Total hydrocarbons mass removed = 422,731 gallons:
 - ~ 212,226 gallons recycled and destroyed:
 - 55,538 gallons of free product recovered
 - 1,397 gallons of dissolved-phase hydrocarbons recovered
 - 155,291 gallons of volatile hydrocarbons recovered through soil vapor extraction
 - ~ 210,505 gallons destroyed due to enhanced biodegradation
 - 42.2 million gallons of water treated

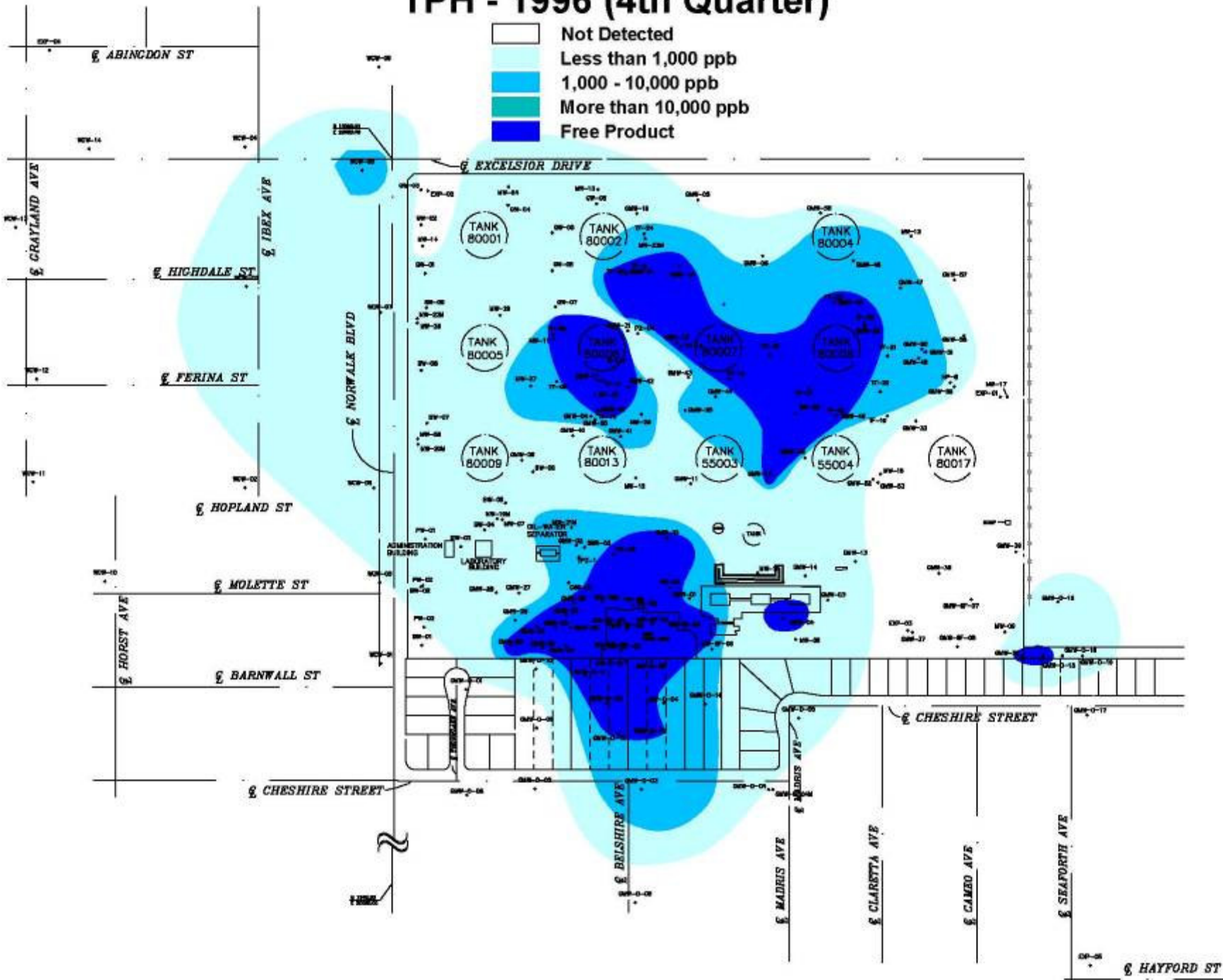
Free Product - 1996 (4th Quarter)



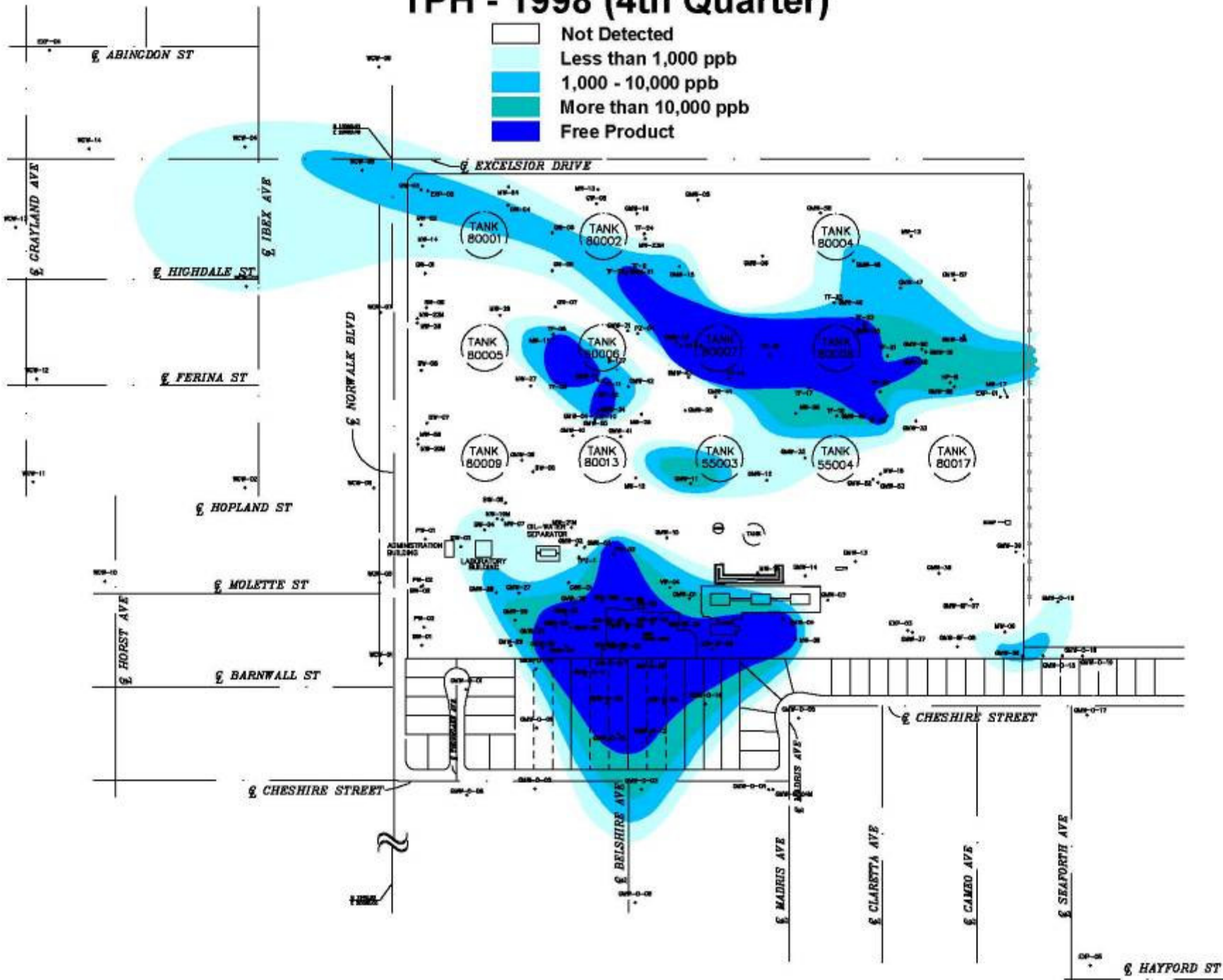
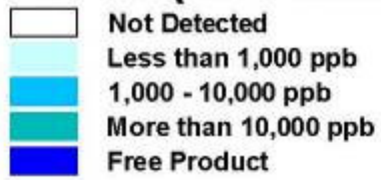
Free Product - 2007 (4th Quarter)



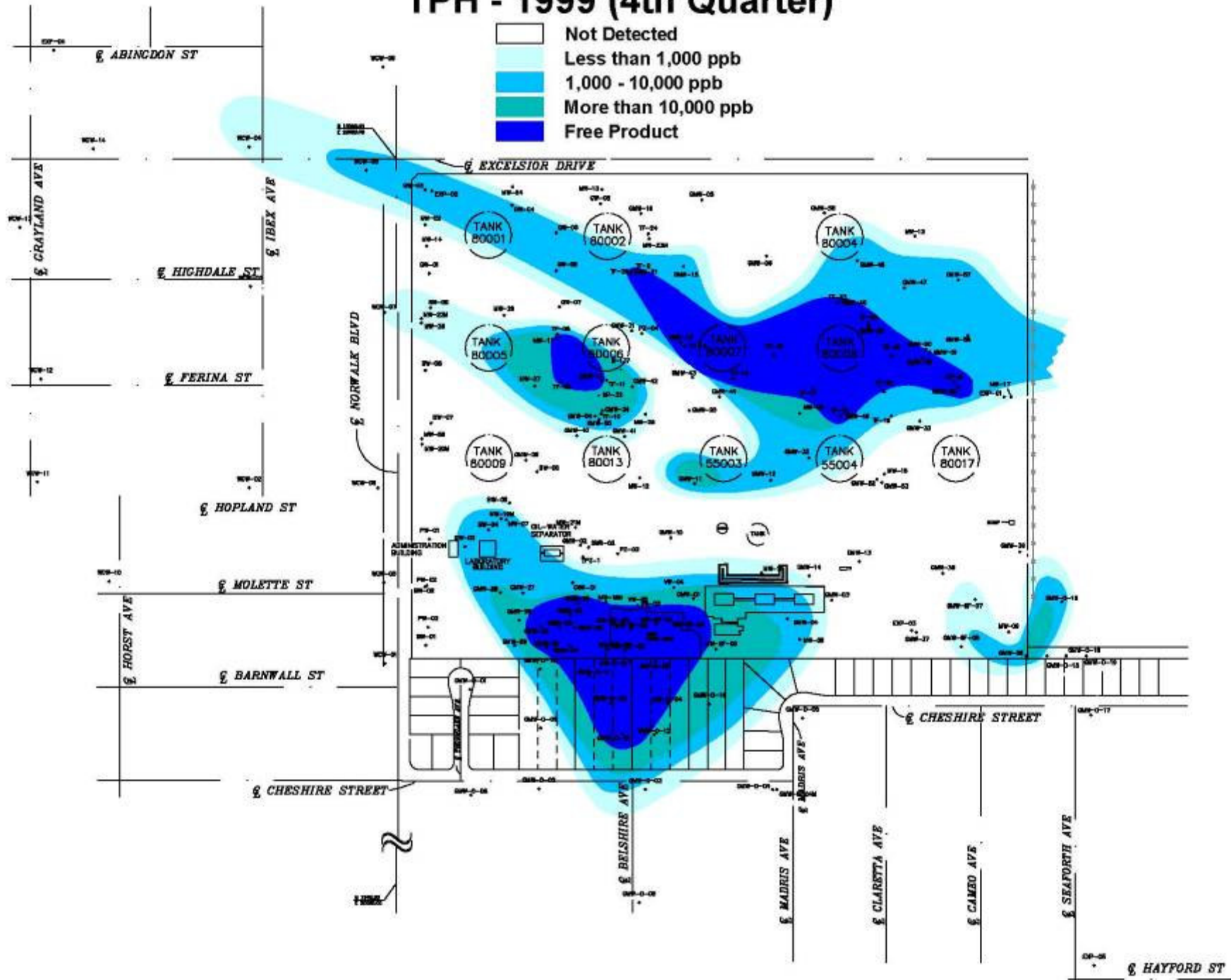
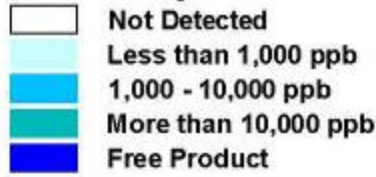
TPH - 1996 (4th Quarter)



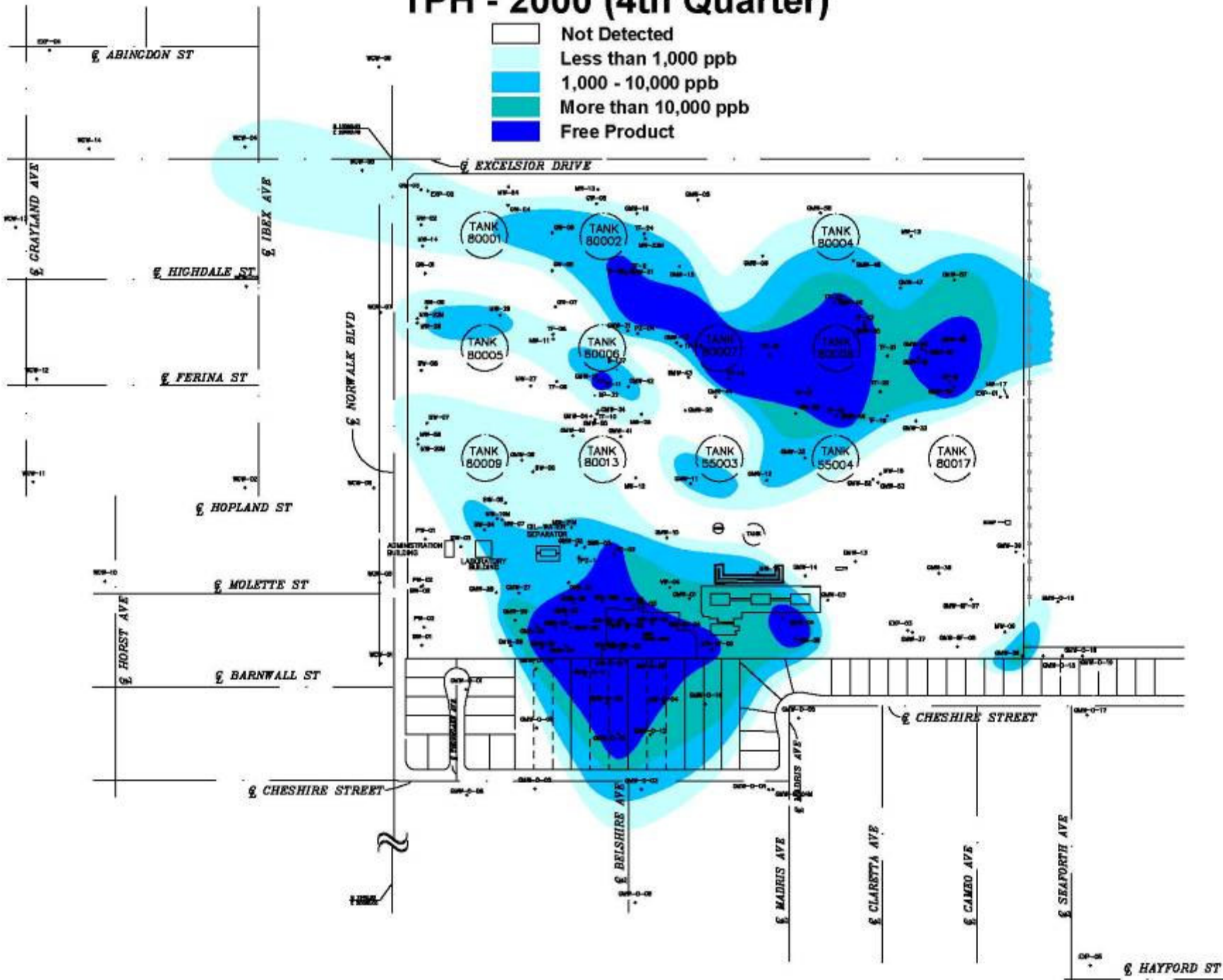
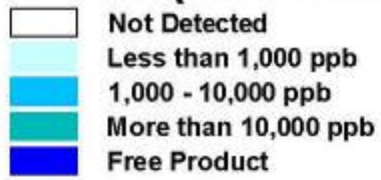
TPH - 1998 (4th Quarter)



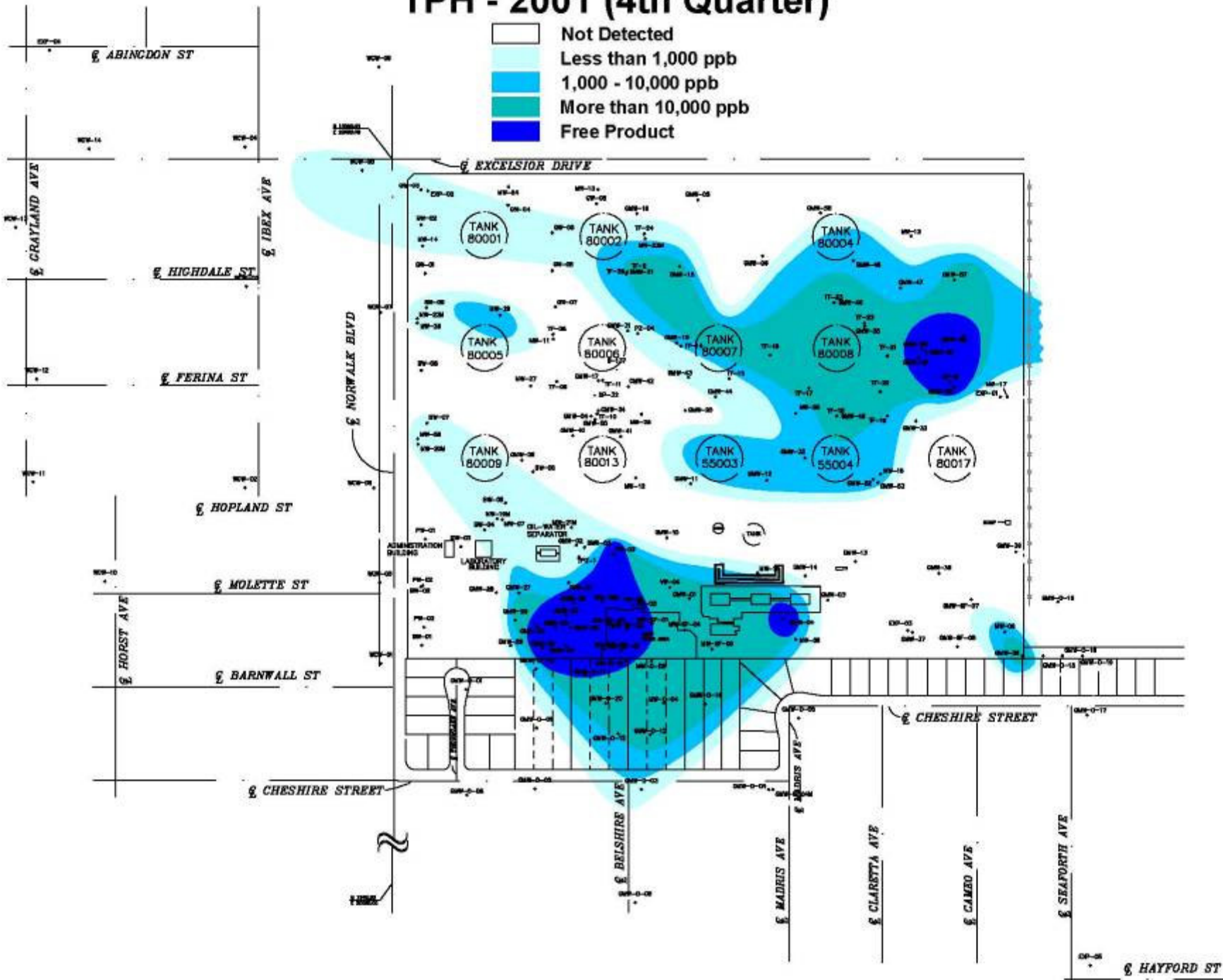
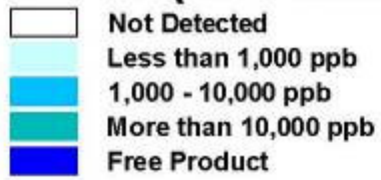
TPH - 1999 (4th Quarter)



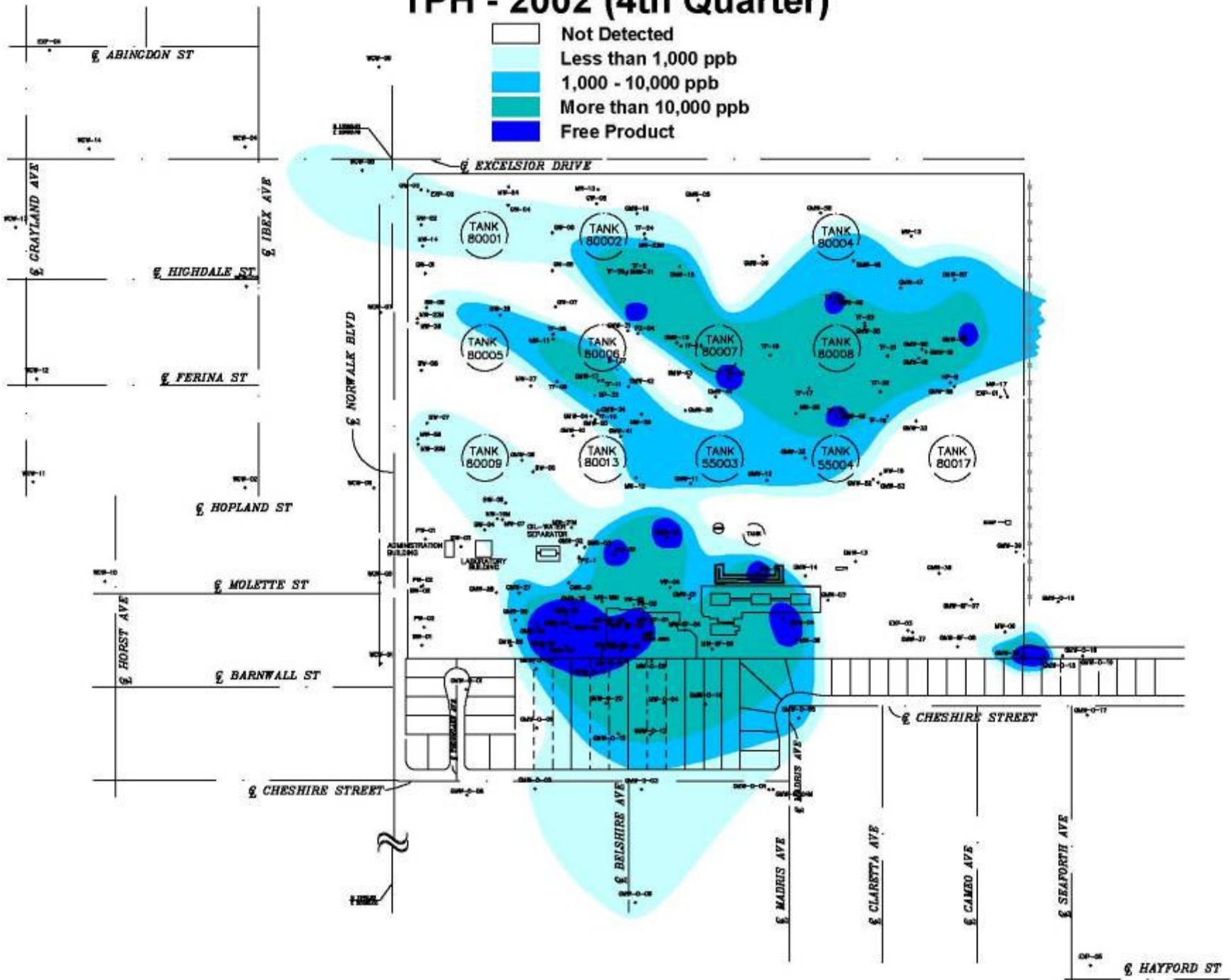
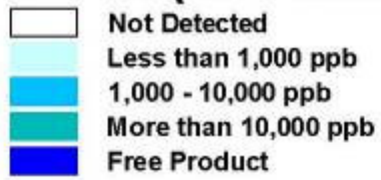
TPH - 2000 (4th Quarter)



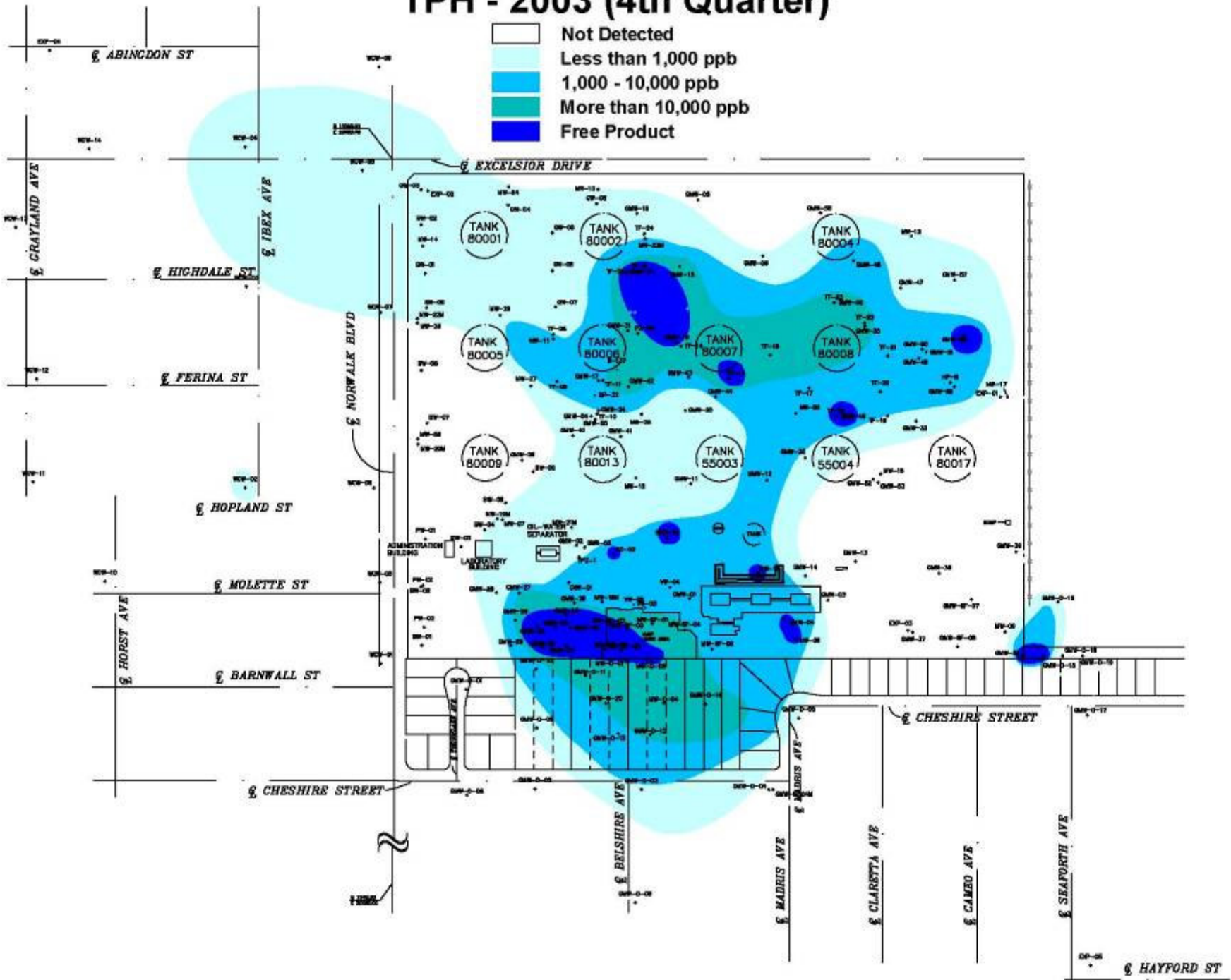
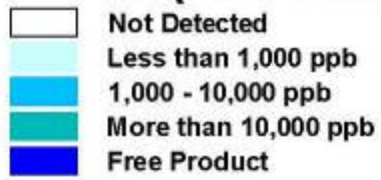
TPH - 2001 (4th Quarter)



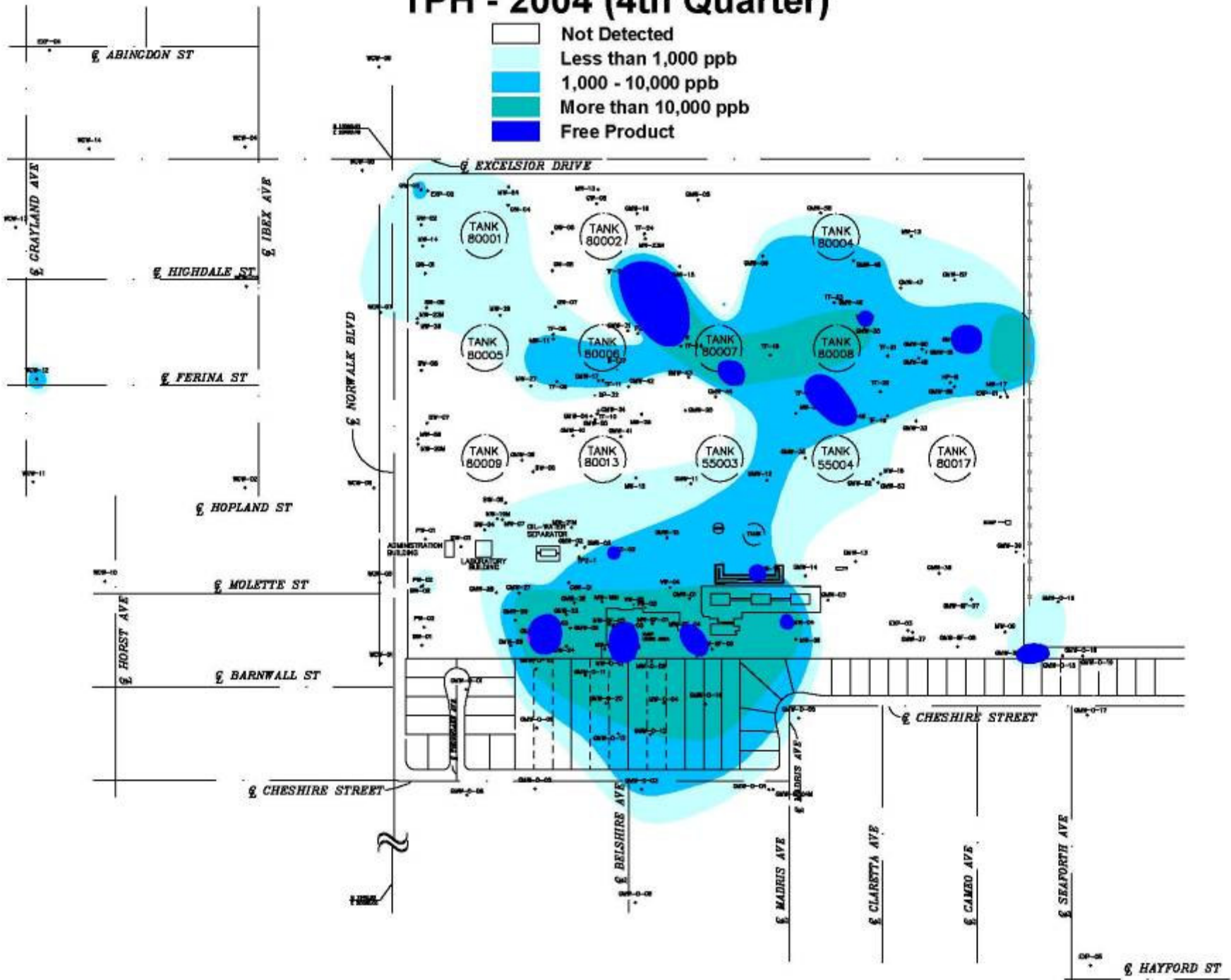
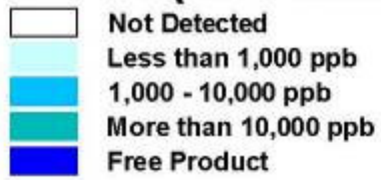
TPH - 2002 (4th Quarter)



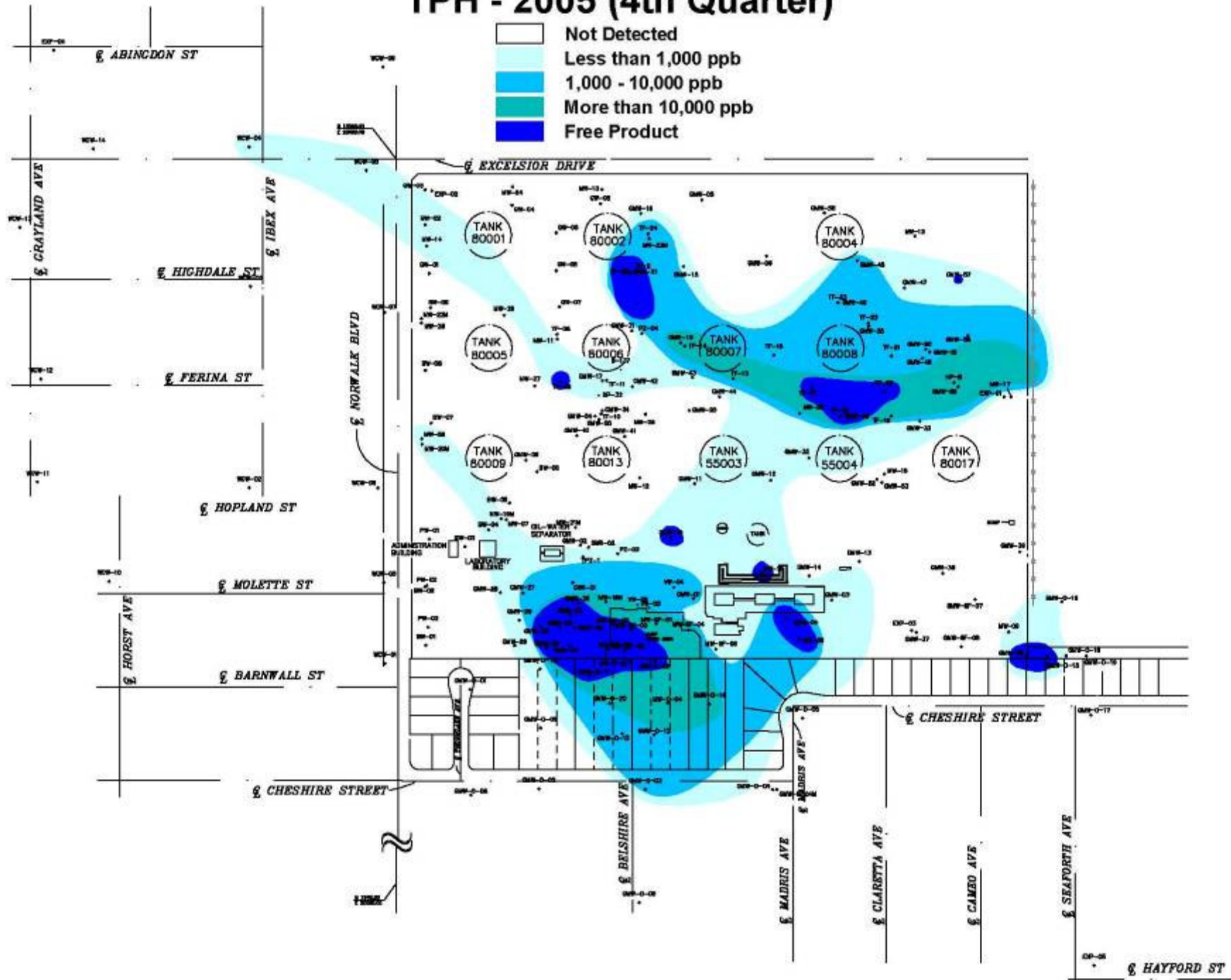
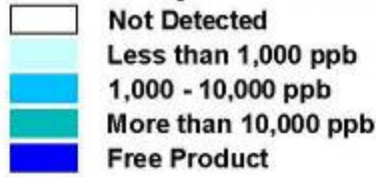
TPH - 2003 (4th Quarter)



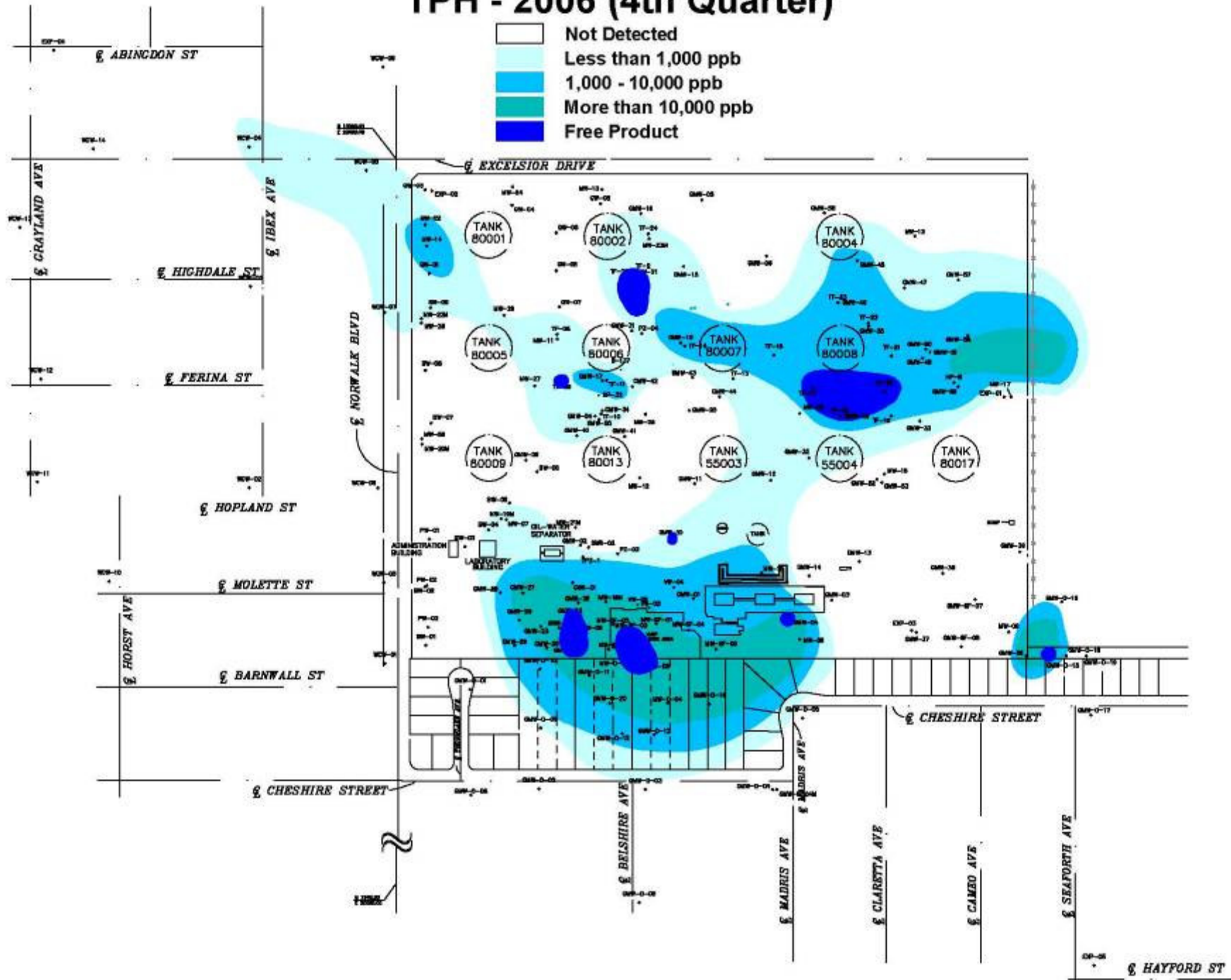
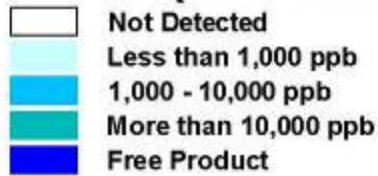
TPH - 2004 (4th Quarter)



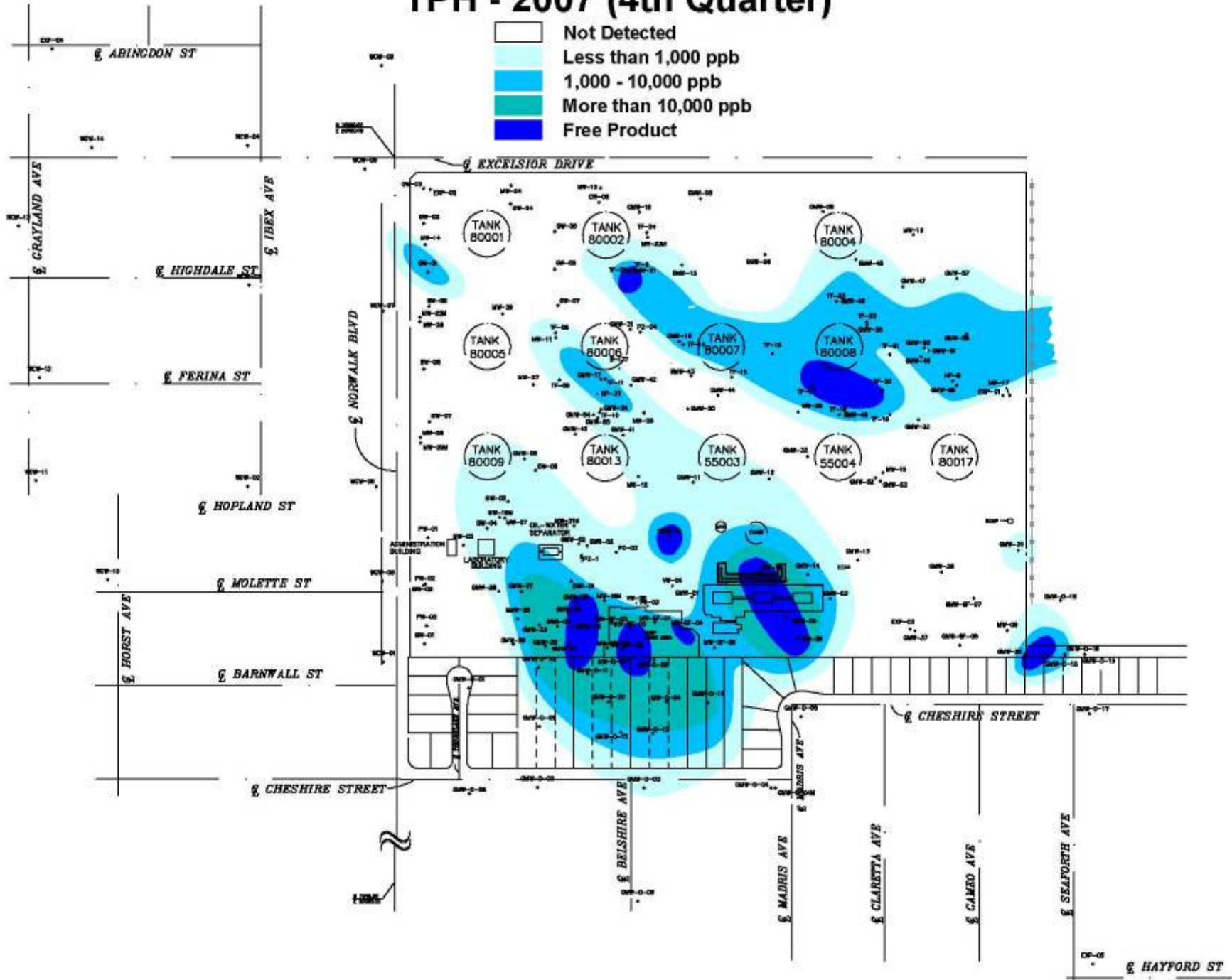
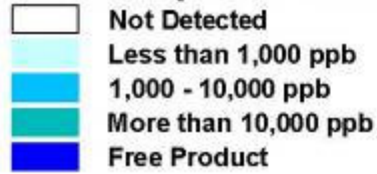
TPH - 2005 (4th Quarter)



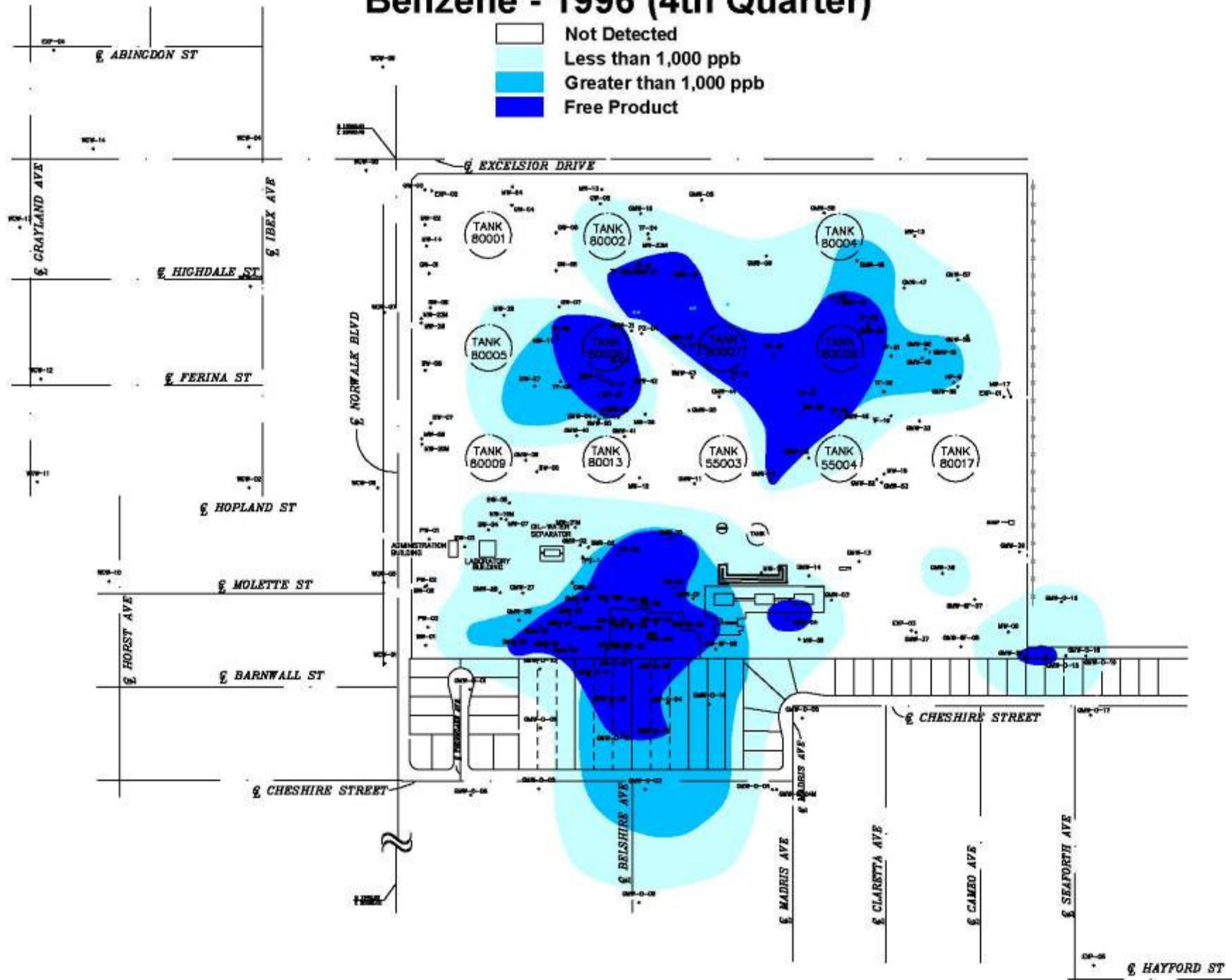
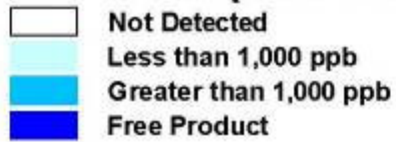
TPH - 2006 (4th Quarter)



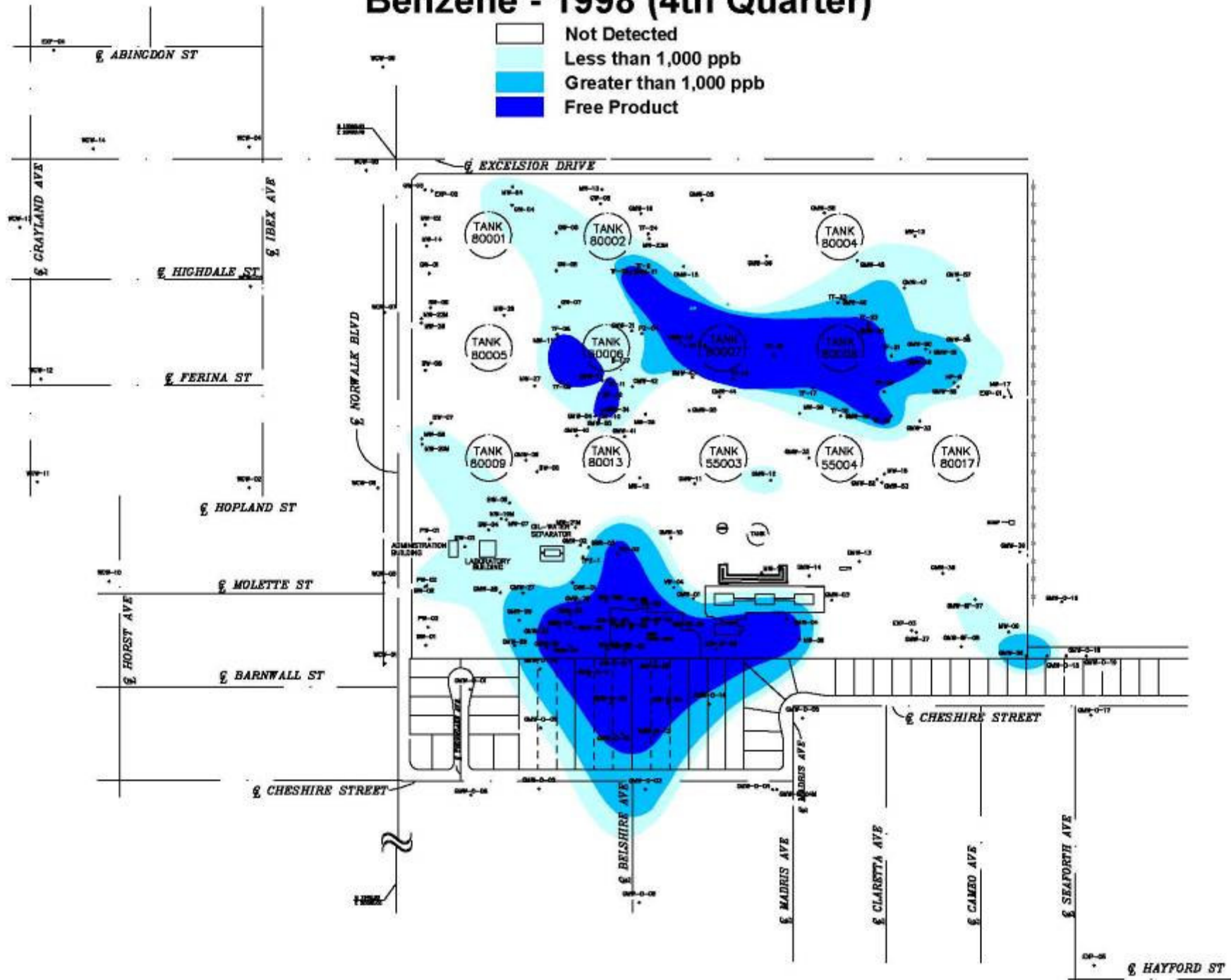
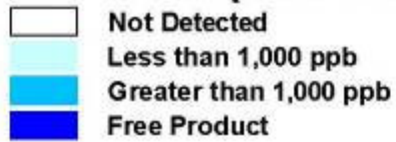
TPH - 2007 (4th Quarter)



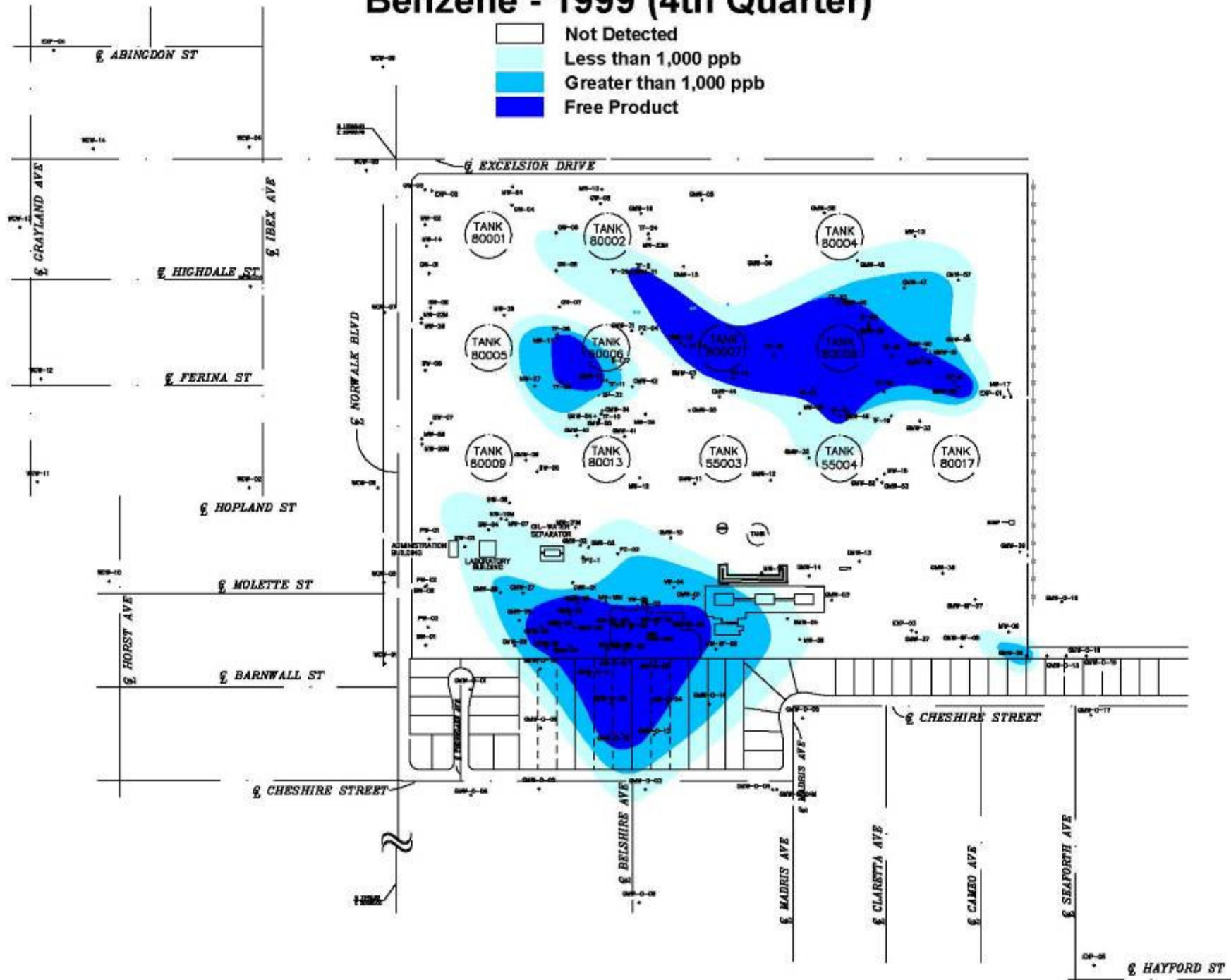
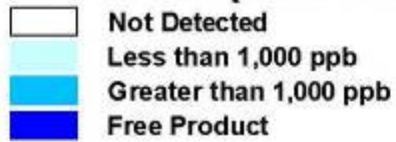
Benzene - 1996 (4th Quarter)



Benzene - 1998 (4th Quarter)

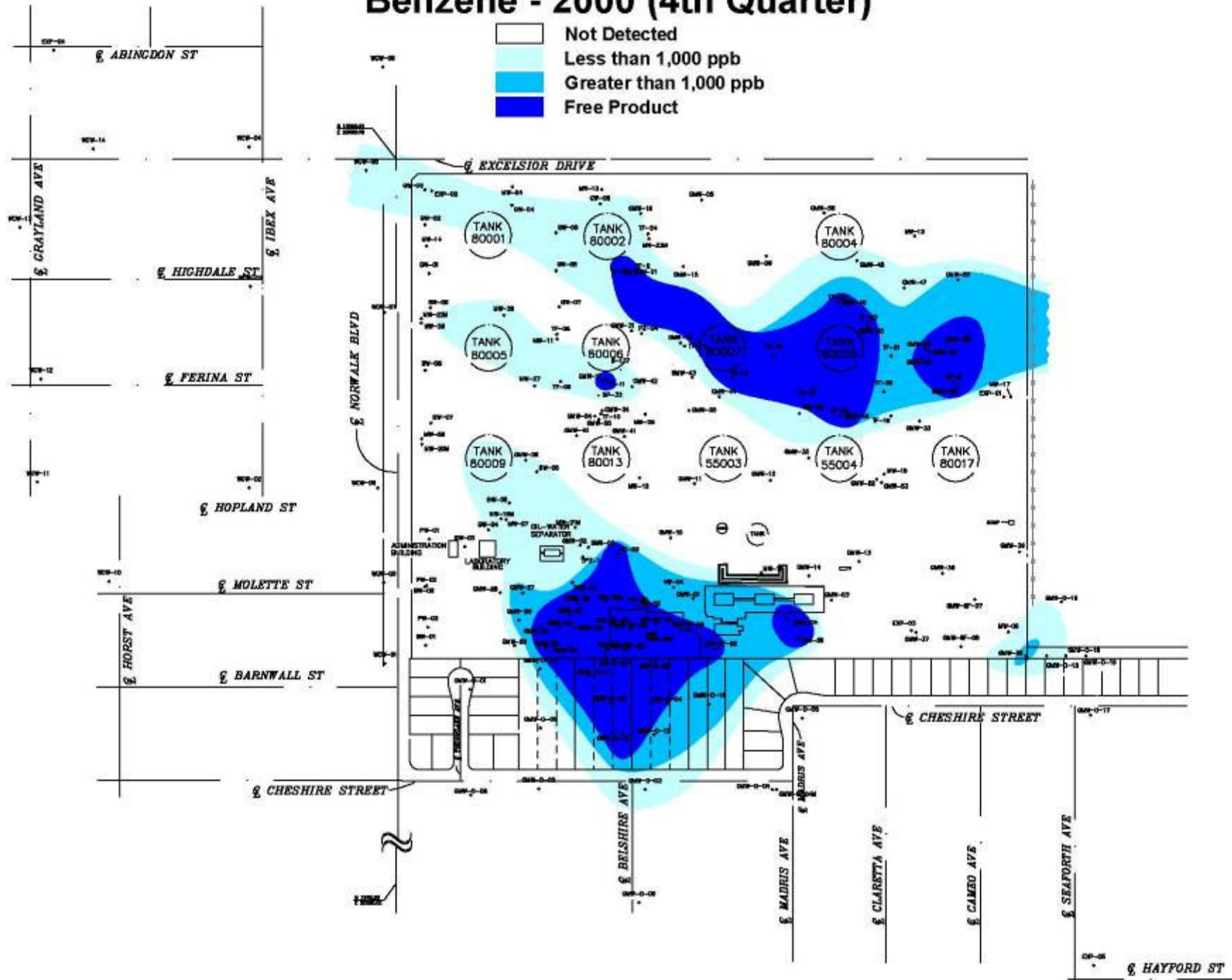


Benzene - 1999 (4th Quarter)

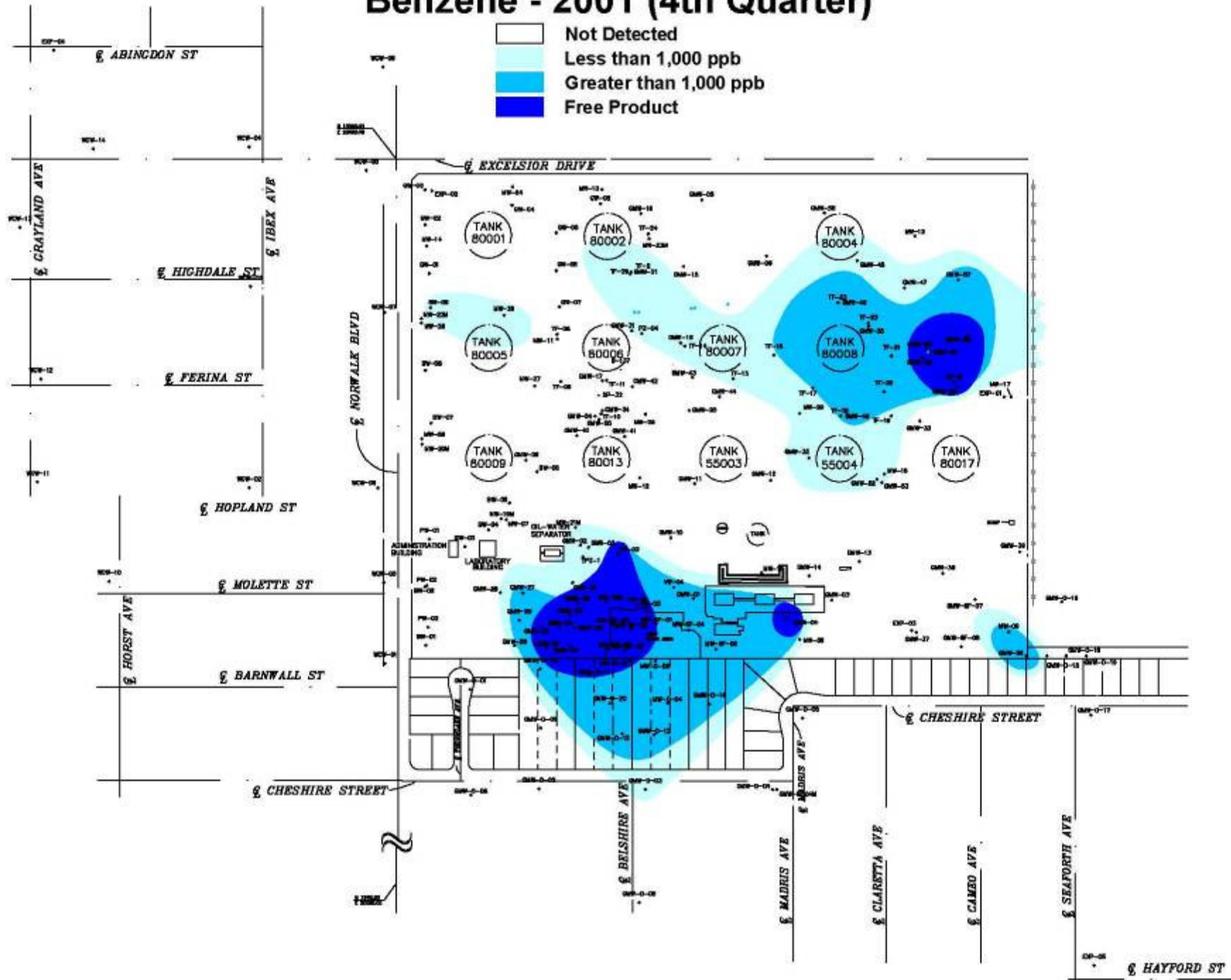
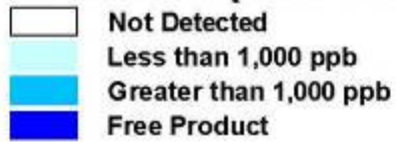


Benzene - 2000 (4th Quarter)

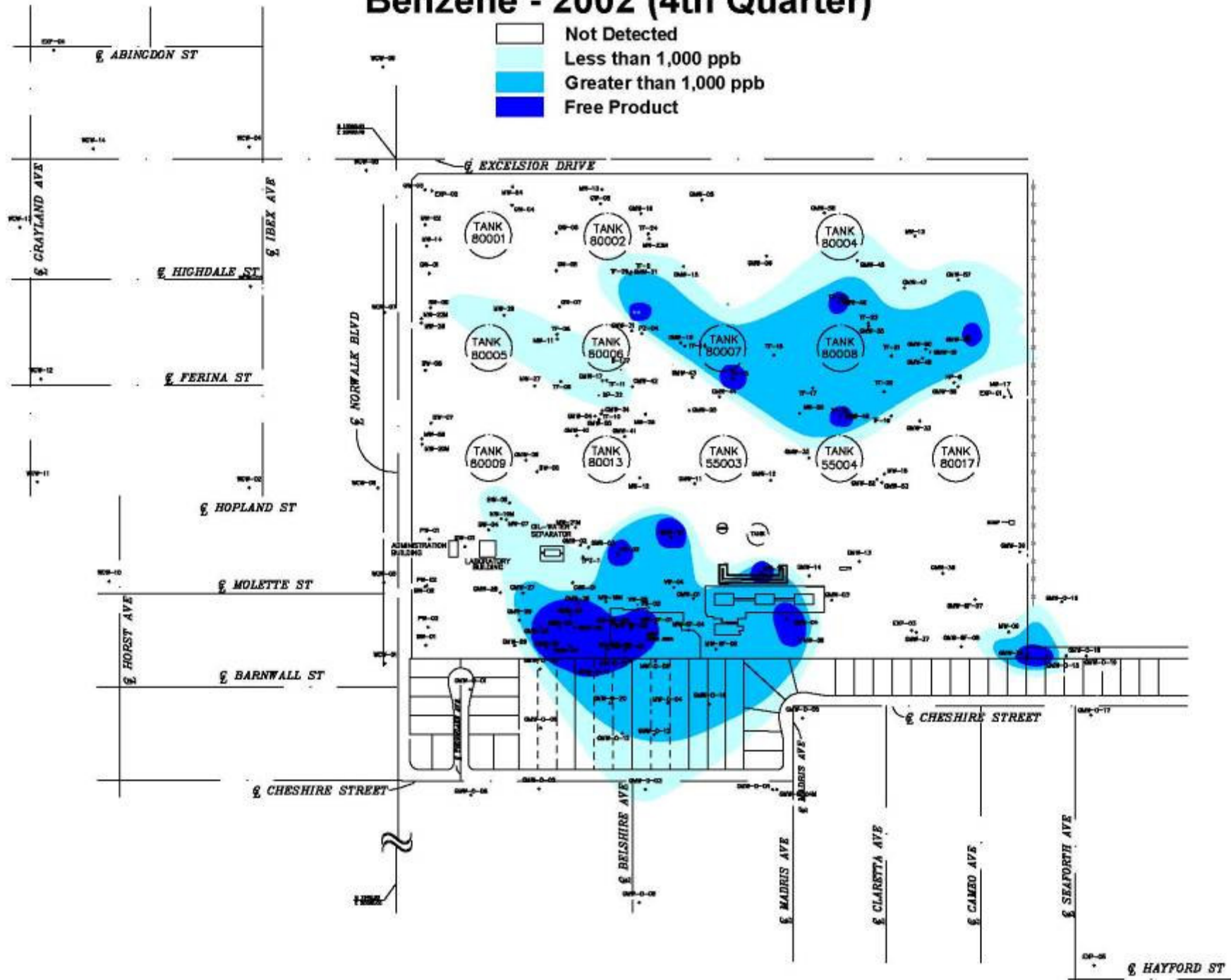
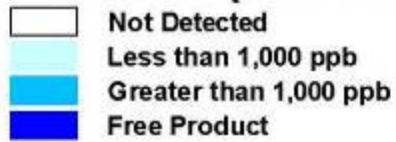
- Not Detected
- Less than 1,000 ppb
- Greater than 1,000 ppb
- Free Product



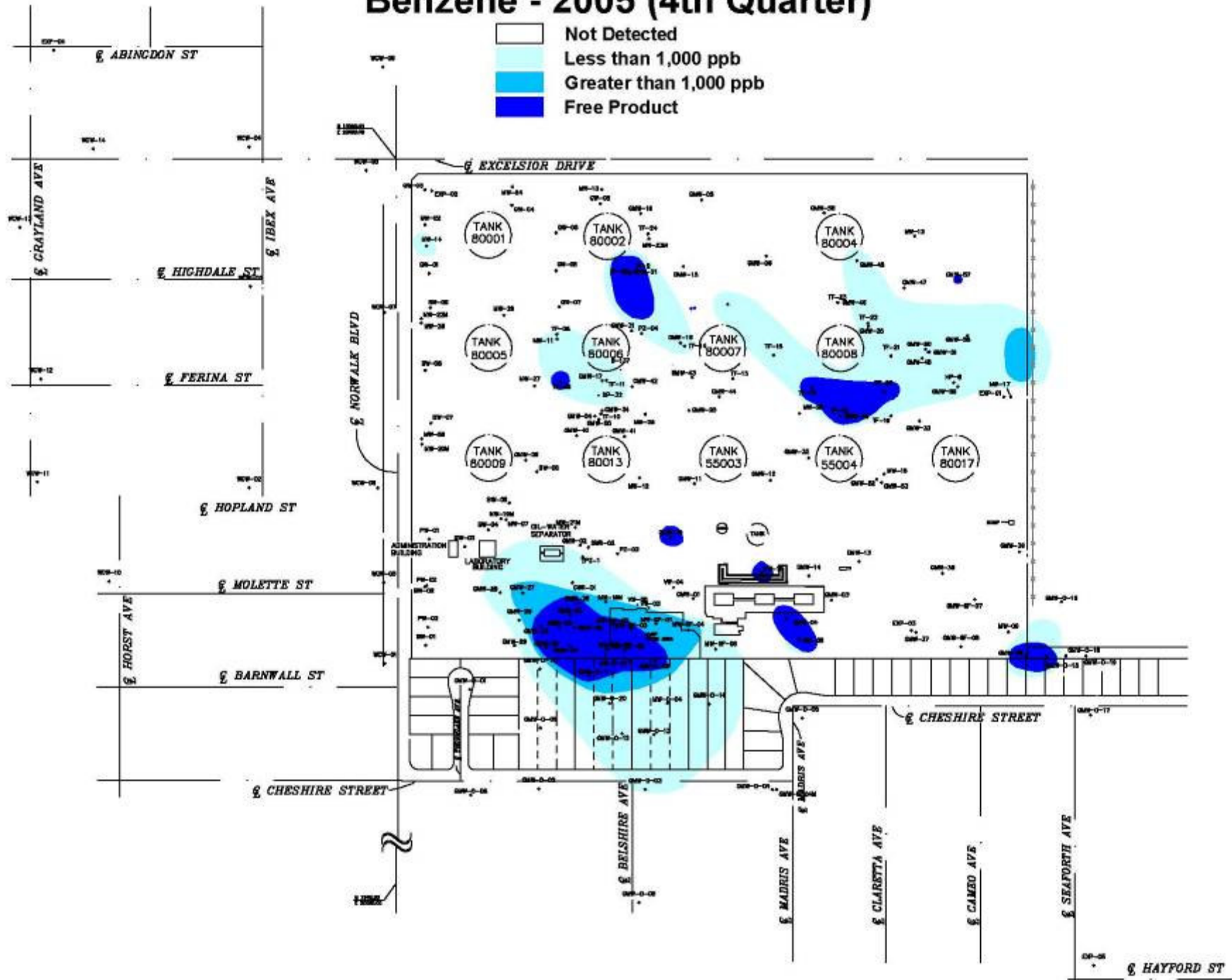
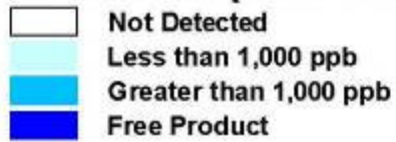
Benzene - 2001 (4th Quarter)



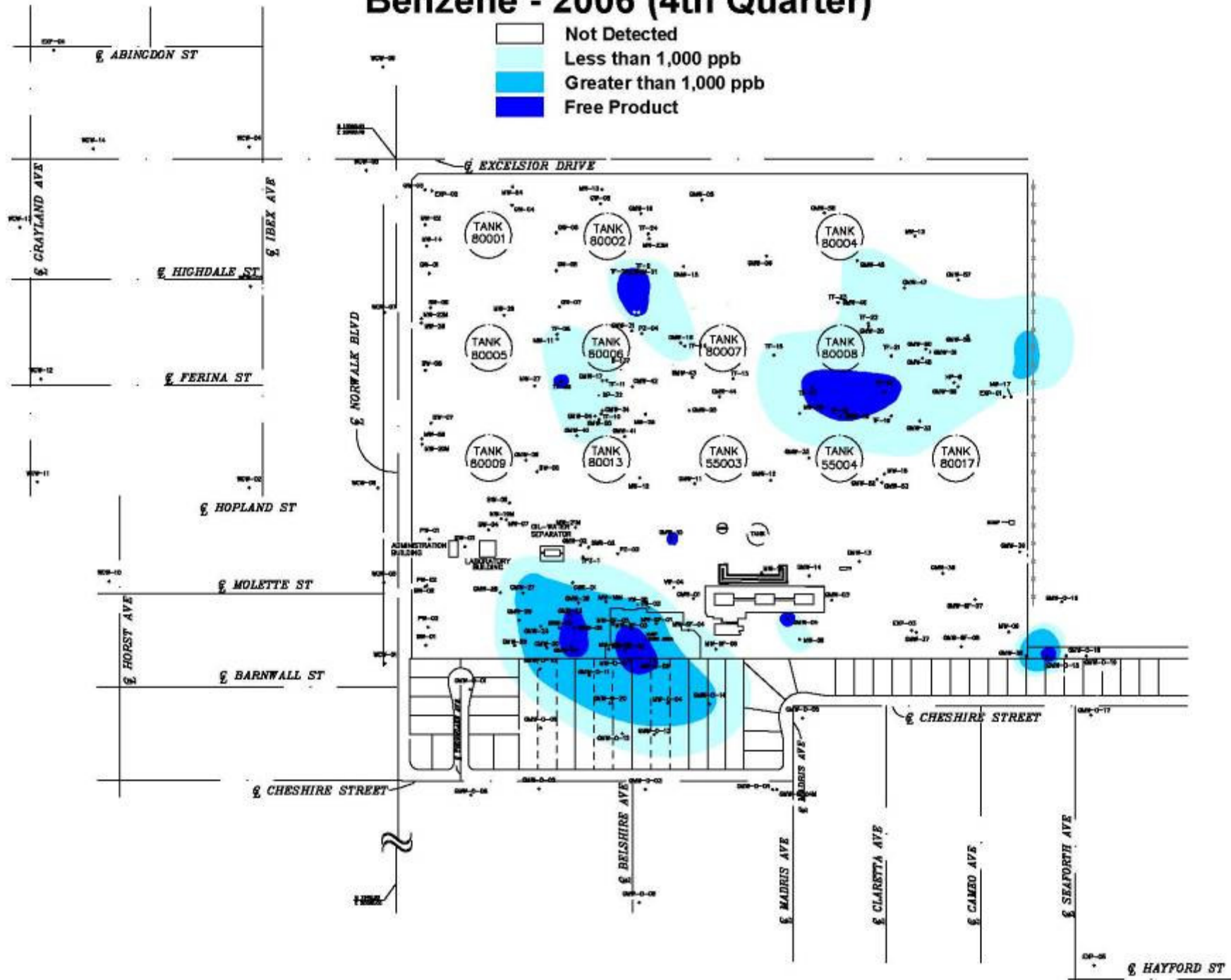
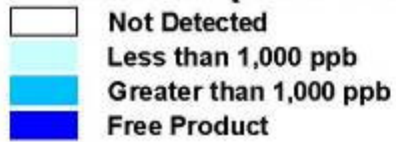
Benzene - 2002 (4th Quarter)



Benzene - 2005 (4th Quarter)

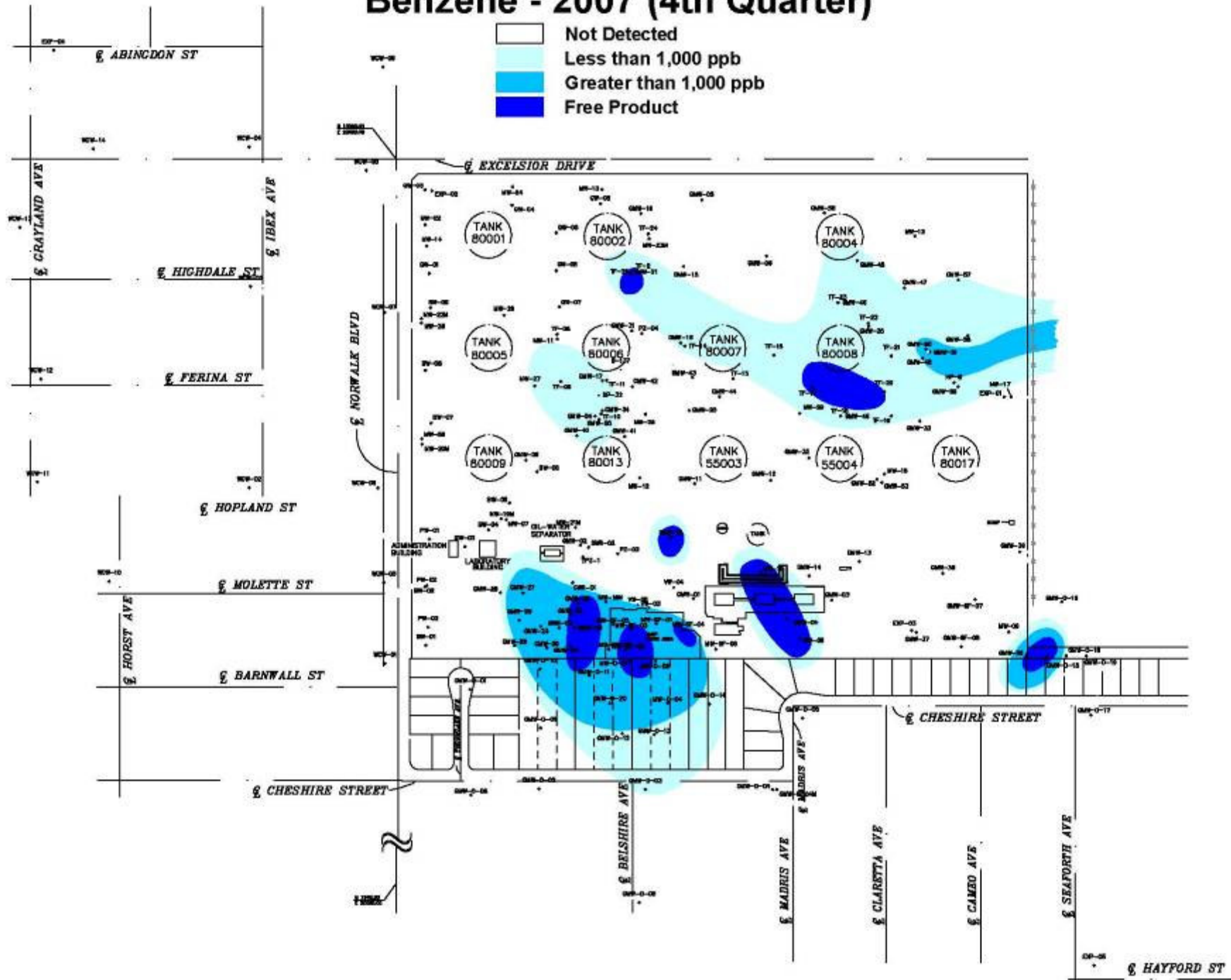


Benzene - 2006 (4th Quarter)



Benzene - 2007 (4th Quarter)

- Not Detected
- Less than 1,000 ppb
- Greater than 1,000 ppb
- Free Product



Future Cleanup Actions

- Operation of expanded cleanup system to include:
 - Eastern boundary area
 - Groundwater extraction from the west, central, and east wells
- Additional groundwater investigation at Holifield Park
- Cleanup system installation at Holifield Park to include additional monitoring wells

Questions?