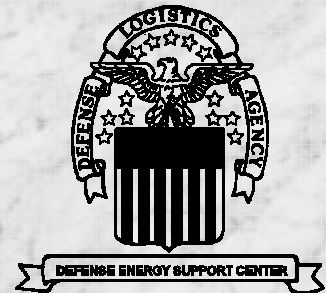


# *Norwalk Tank Farm Update*

*Defense Energy Support Center-  
Americas West  
Norwalk Tank Farm  
Restoration Advisory Board*

*October 27, 2005*



# Presentation Overview

## Topics to be Covered

- Central plume remediation system update

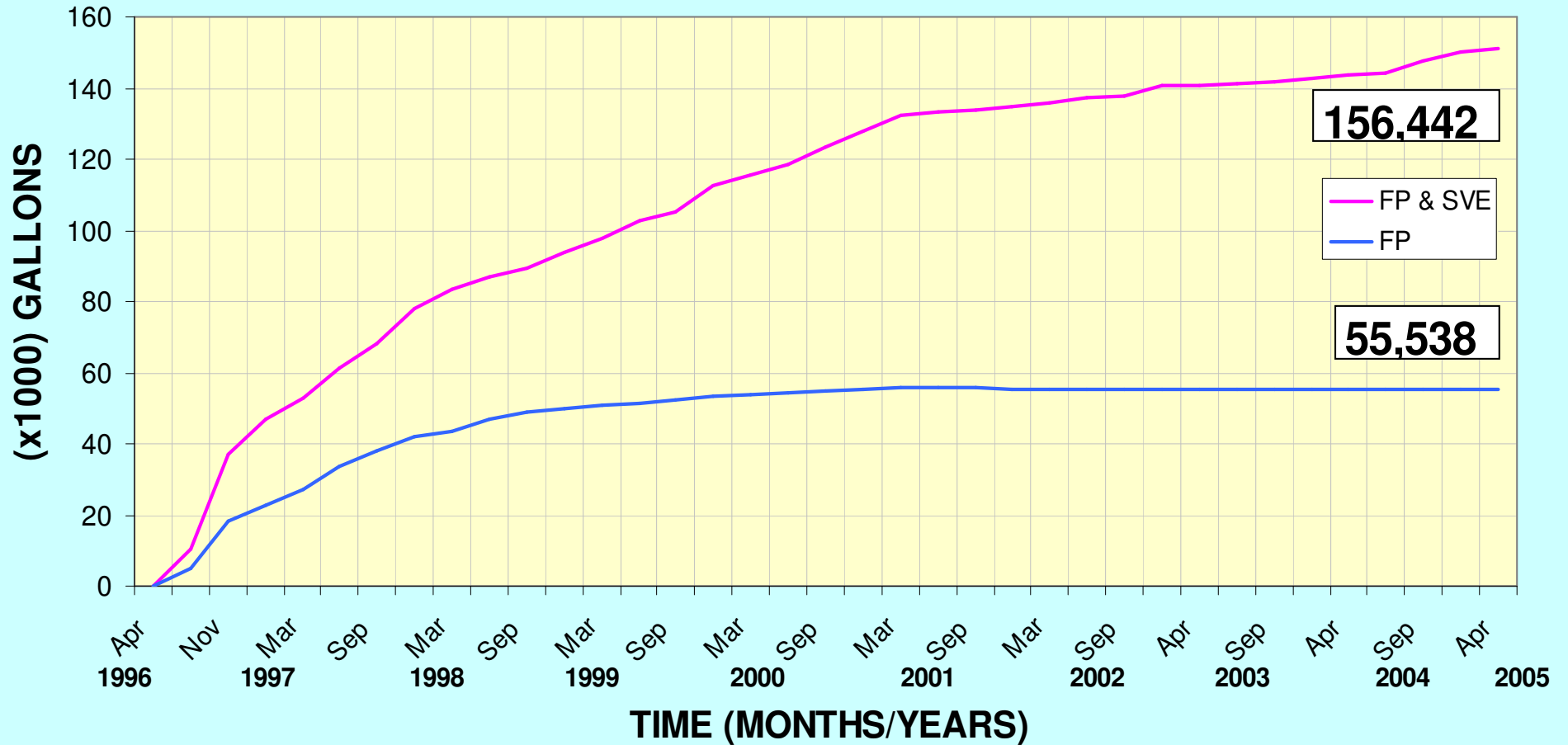
# Central Plume Remediation

- System Performance Third Quarter 2005
  - Total Hydrocarbons Removed: 7,540 gallons
    - Approx. 2,965 gallons recycled and destroyed
      - 0 gallons of free product recovered
      - 0.001 gallons of dissolved-phase hydrocarbons recovered
      - 2,965 gallons of volatile hydrocarbons recovered through soil vapor extraction (SVE)
    - Estimated 4,575 gallons of hydrocarbons destroyed due to enhanced biodegradation
  - 2,310 gallons of water treated

# Central Plume Remediation

- System Performance since April 1996
  - Total Hydrocarbons Mass Removed:  
284,531 gallons
    - Approx. 156,442 gallons recycled and destroyed
      - 55,538 gallons of free product recovered
      - 1,397 gallons of dissolved-phase hydrocarbons recovered
      - 99,507 gallons of volatile hydrocarbons recovered through SVE
    - Estimated 135,628 gallons of hydrocarbons destroyed due to enhanced biodegradation
  - 42.2 M gallons of water treated

# HYDROCARBONS & FREE PRODUCT--CENTRAL PLUME



# Remediation Optimization

- Continued soil remediation through SVE
  - SVE removed ~1,900 gallons within tank farm and water tank
  - SVE removed > 1,000 gallons from truck fill stand (TFS)
  - Biodegradation removed > 4,500 gallons
- Continued operation of biosparging wells
- Working to update DFSP groundwater treatment system PLC controls to allow continued extraction from Total Fluid (TF) wells

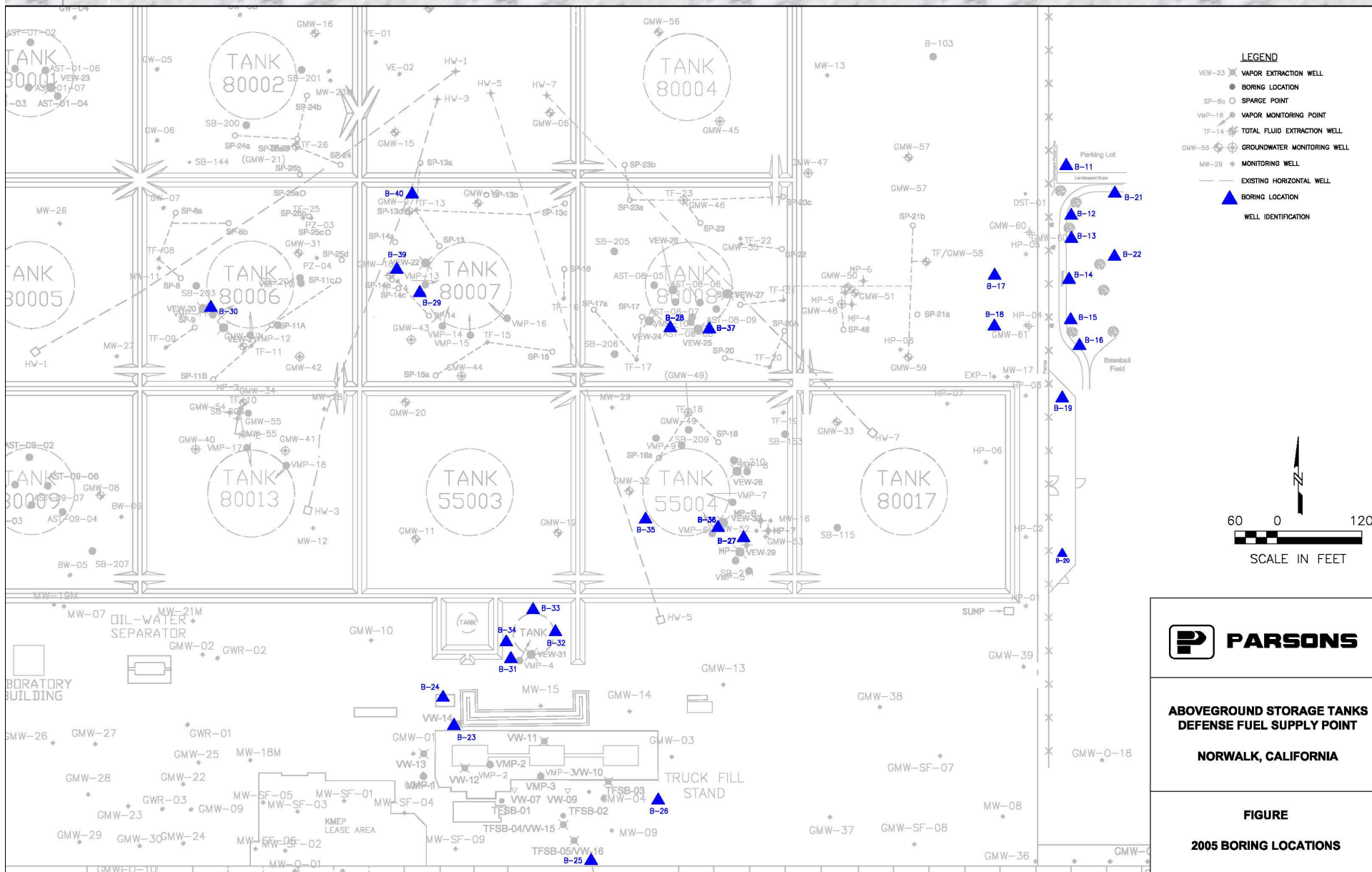


# Regulatory Interactions

- Met with Dr. Kwang Lee of the Waterboard on Aug. 29, 2005. Received approval for:
  - Proceeding with on-site and Eastern boundary off-site investigation within Holifield Park
  - Replacing vapor extraction system (VES) with bioventing
  - Not pumping from GW wells; however, must continue pumping from higher concentration total fluid (TF) wells
- Working to finalize agreement with City of Norwalk to access Holifield Park



# Boring Locations



# Remediation Progress

- Installed on site borings to evaluate SVE progress
  - Tank farm results varied—up to 79% reduction in soil concentrations
  - Water tank soil borings indicated 57% to 99.9% reduction in TPH as JP-5
  - TFS indicated 98% reduction in TPH
- Will proceed with respiration testing to further evaluate progress

# Weed Abatement



# Discussion