

City of Tacoma Illicit Discharge Investigation Case Study

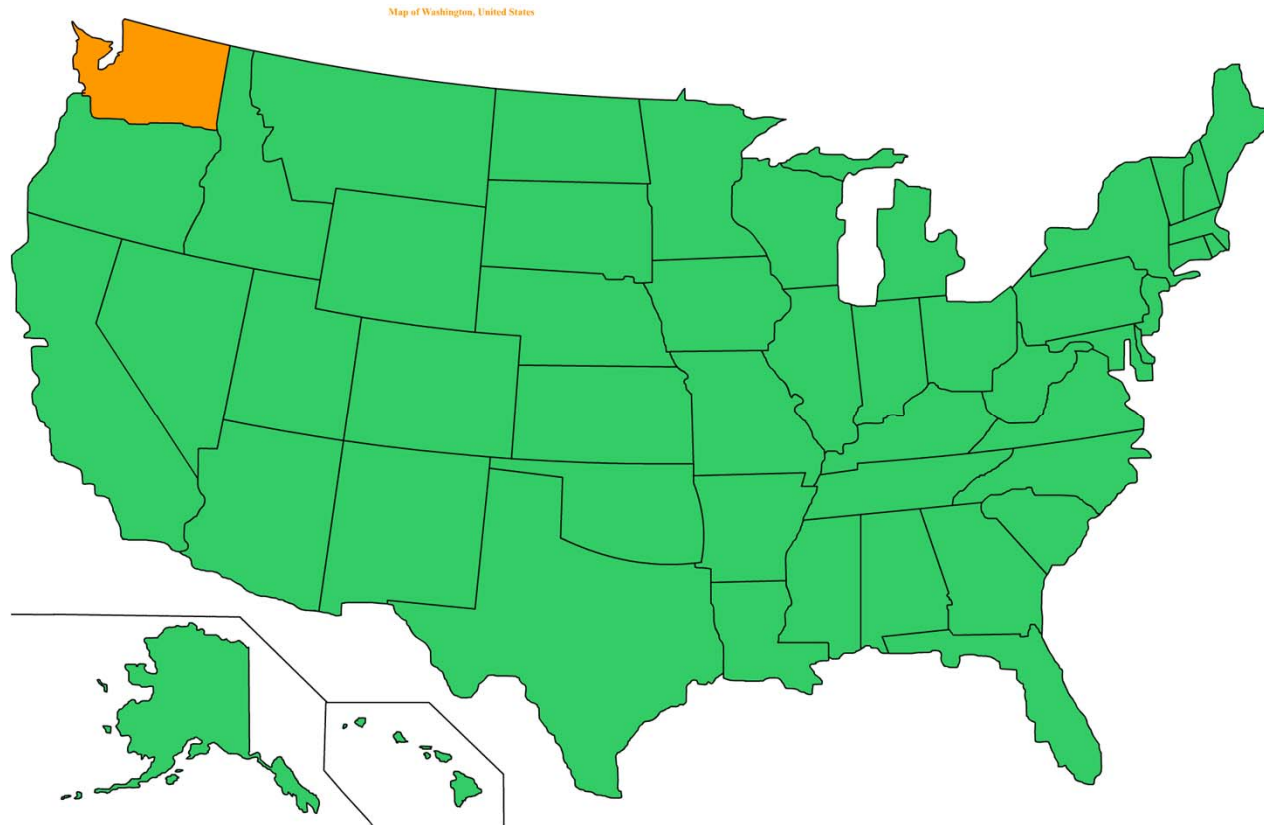


Presentation Outline



- Tacoma background and highlights
- 2009 event of an illicit discharge of oily wastes
- Investigation and cleanup
- Problems, experiences and revelations
- Program changes

Washington State

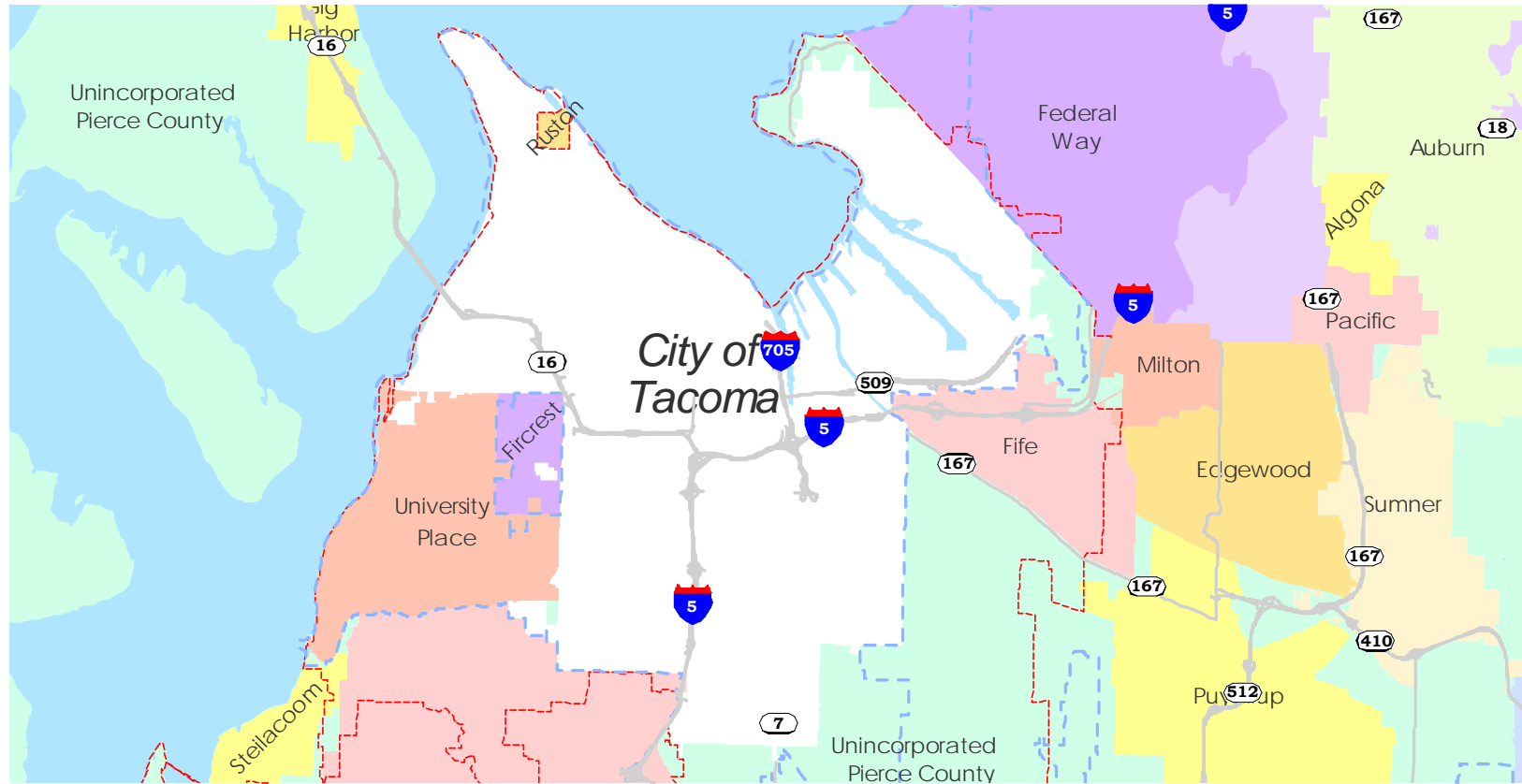


Puget Sound Region

- Along the shores of Commencement Bay
- About 35 miles south of Seattle



The Greater Tacoma Area



Tacoma Highlights

- Incorporated in 1884
- Population of about 200,000
- Tacoma owns and operates two wastewater treatment plants
- Industrial Pretreatment Program delegated on November 30, 1984
- General Inspection Program began in 2007



Tacoma Highlights (cont.)

- Natural deepwater port and intermodal facilities
- Served by two transcontinental railroads

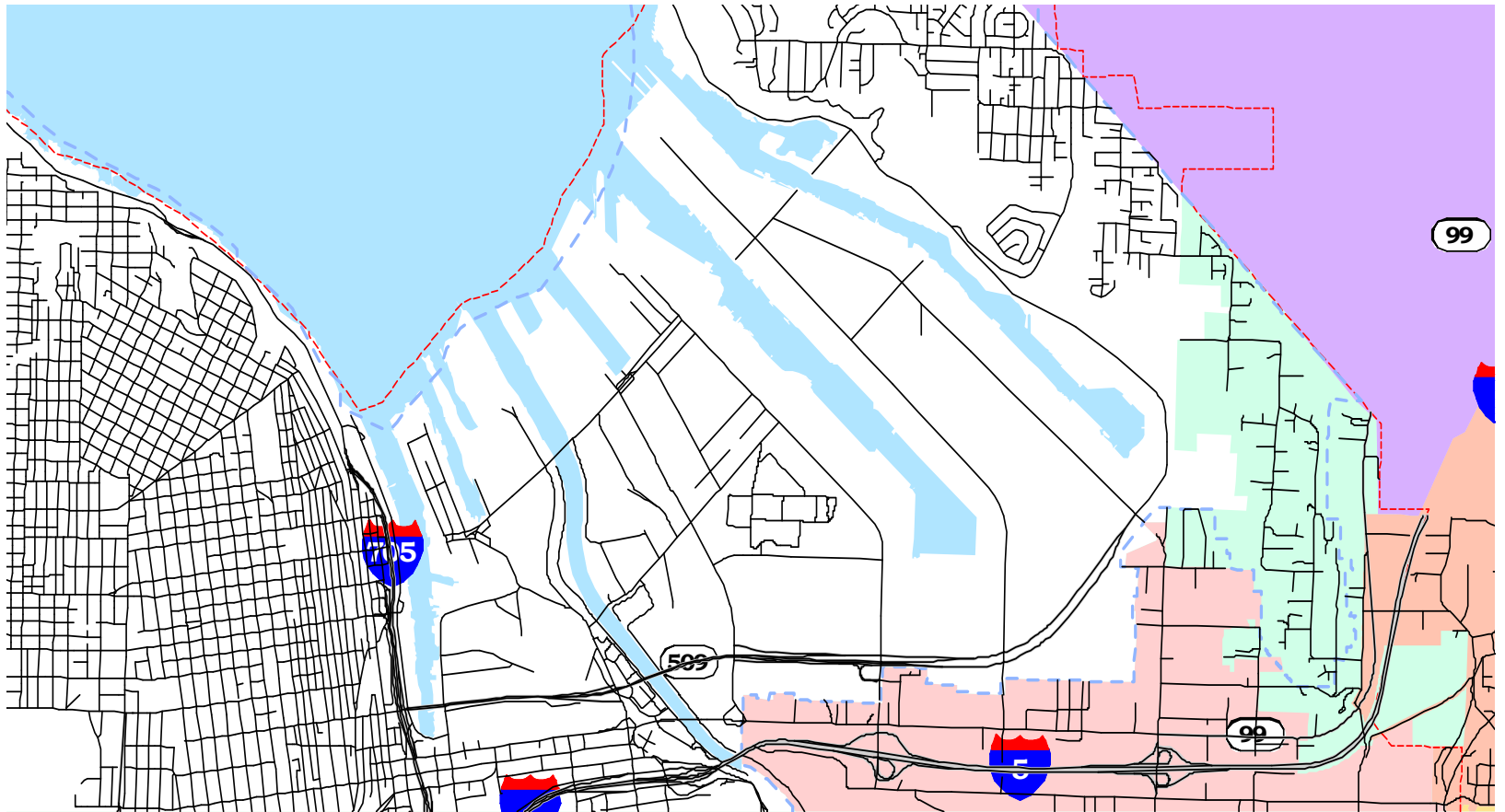


Which Leads Us to Today's Story of an Illicit Discharge...

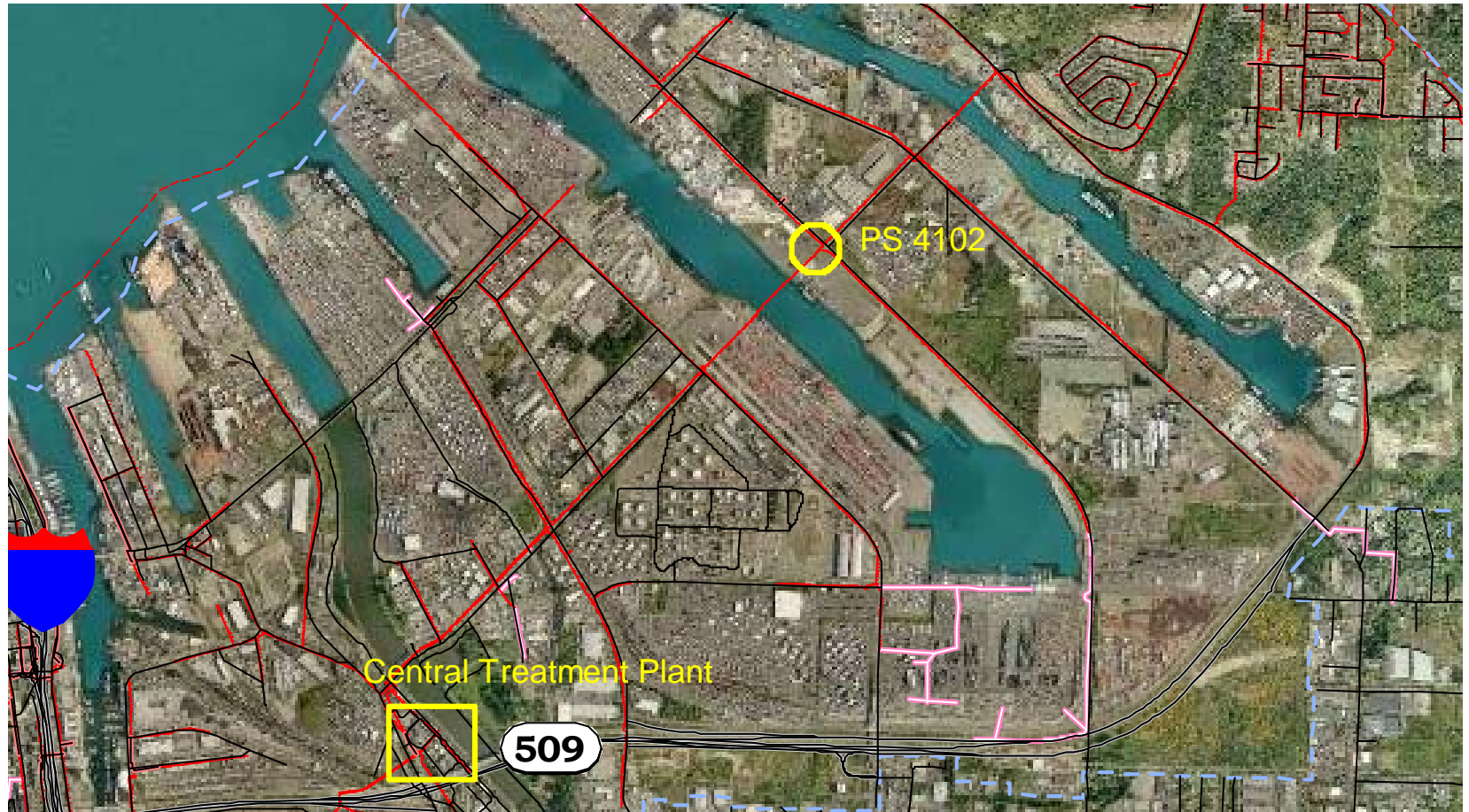
The Initial Response – 1/22/09



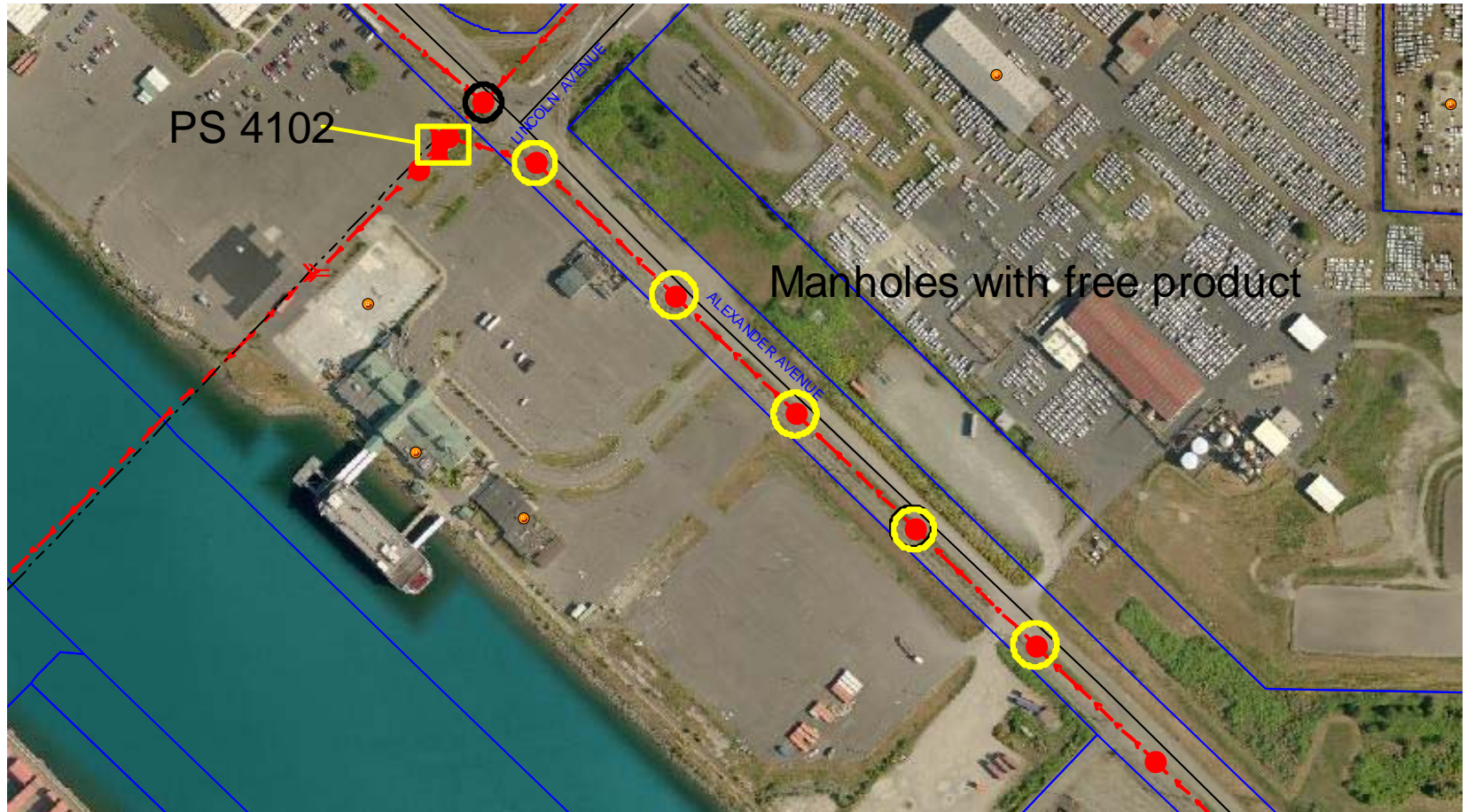
Getting Closer



Zeroing in on the Problem



Tracing the Oil



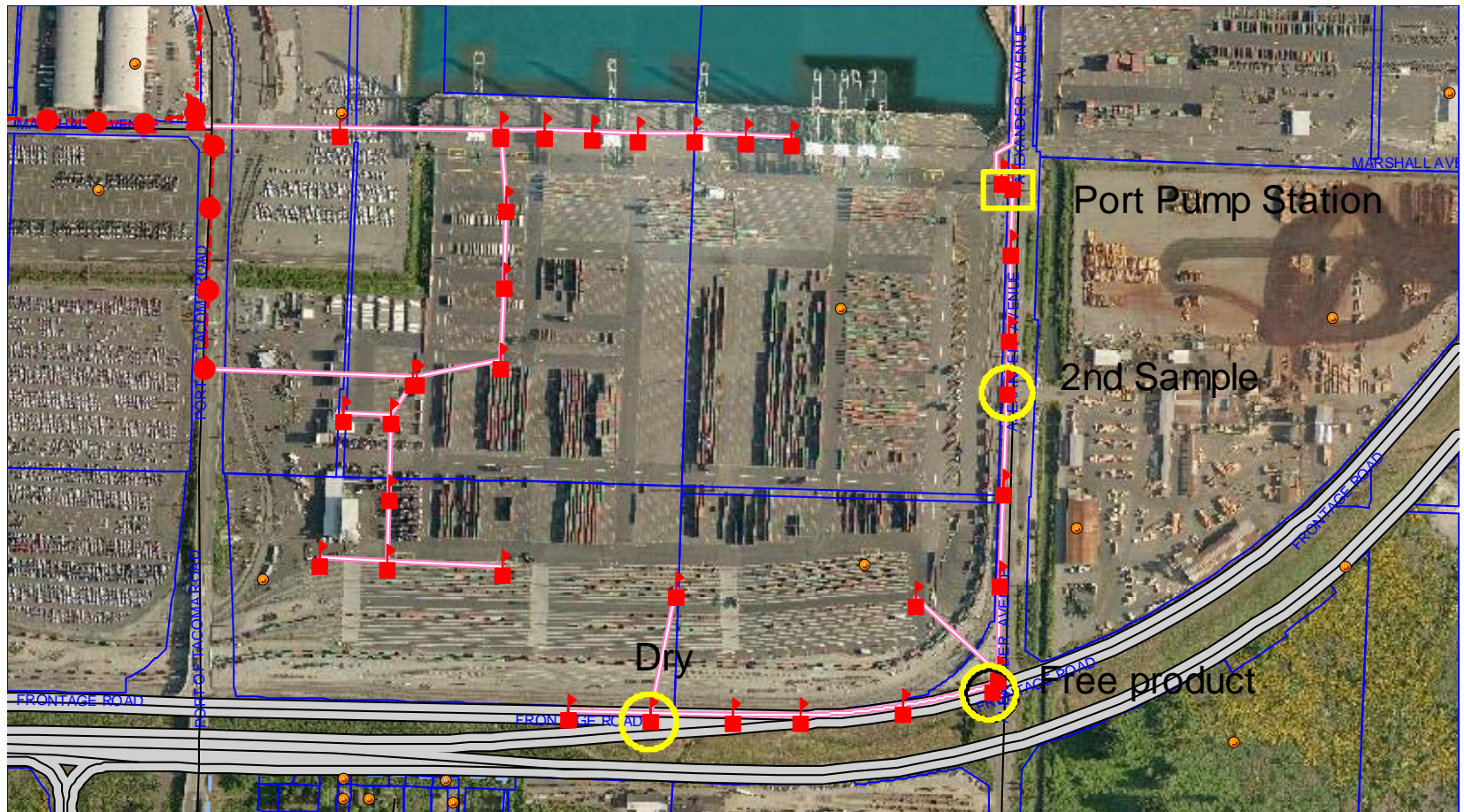
Taking the First Sample



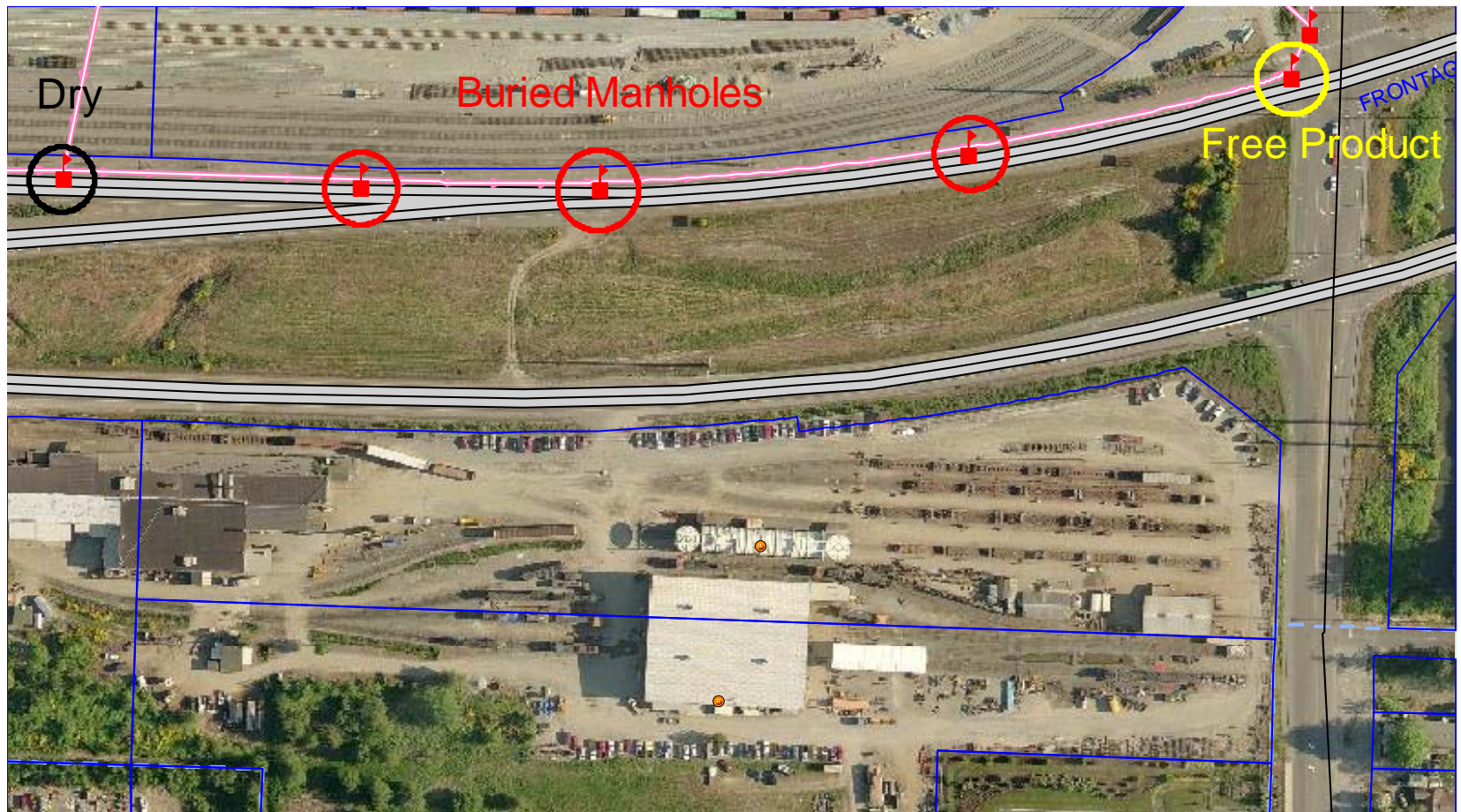
Tracing the Oil - Continued



Tracing the Oil onto Port Property



And Beyond



And Across the Street...



CEECO Site Overview

(Coast Engine & Equipment Co.)



CEECO's Oil/Water Separator

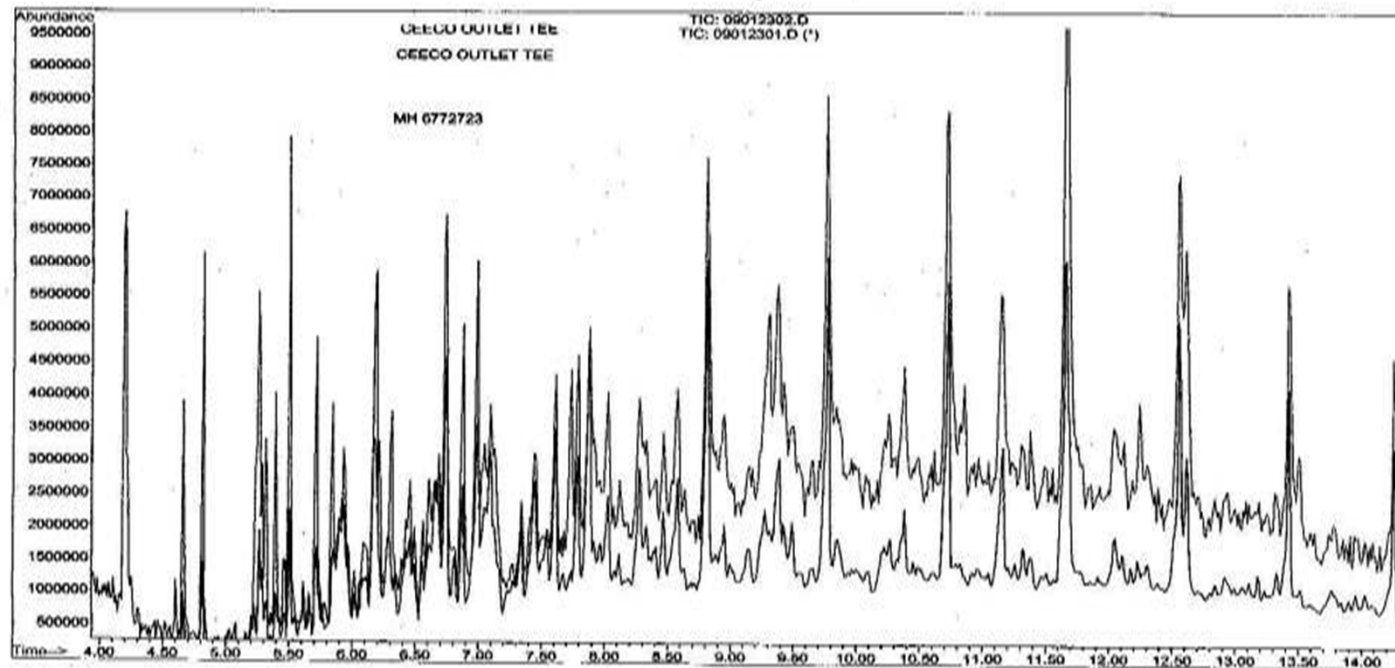


CEECO's Oil/Water Separator Sample



Samples from Sewer Matched Sample from O/W Separator

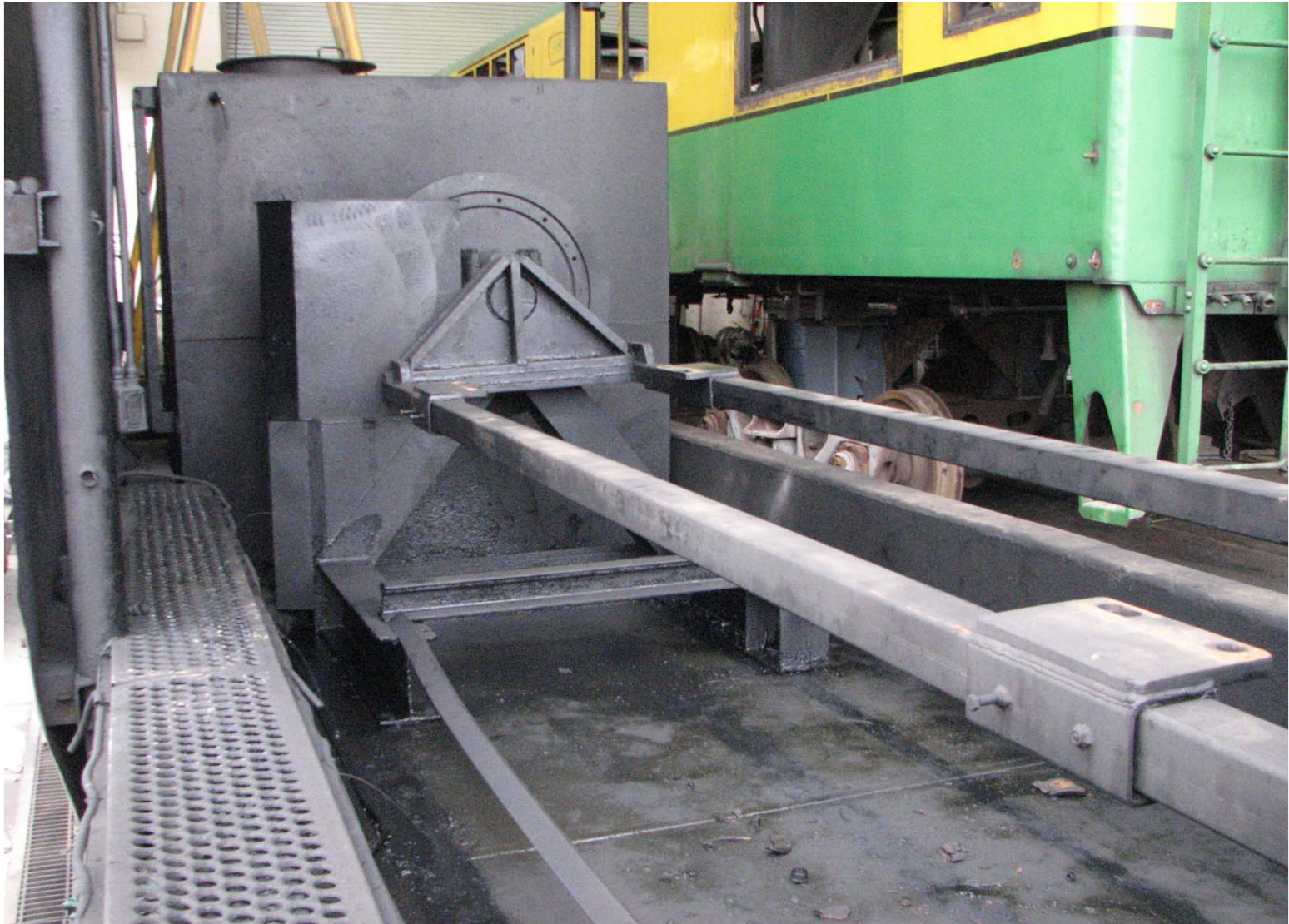
File : C:\HPCHEM\1\DATA\20090123\09012302.D
Operator : LLD
Acquired : 23 Jan 2009 12:13 using AcqMethod NWTPHDXP
Instrument : Sigfried
Sample Name: 2009-00157
Misc Info : CEECO OUTLET TEE JAR/80 ML PV
Vial Number: 2



Possible Sources



Possible Sources



Possible Sources



Possible Sources



Possible Sources





Concerns Identified

- CEECO submitted a self monitoring report in December 2008 which indicated that the oil/water separator was in need of cleaning but was functioning. (53 mg/L vs. Tacoma's discharge limit of 50 mg/L)
- In a letter dated January 13, 2009 Ecology directed CEECO to dispose of wastes.
- Manholes covered by gravel or asphalt.
- Confusion over who owned the sewer main.



Additional Issues

- Almost 2 miles of sewer main that hadn't been cleaned in a long time.
- A sample of debris from our main had an elevated chrome level.
- Finding out how that much oil got into our system.
- Getting the oil out of our system while keeping costs in check.
- Recovering our costs.

Multiple Players Involved

City of Tacoma – local sewer use authority

CEECO – the source of the oil

Port of Tacoma – the property owner

Department of Ecology - Hazardous Waste

Emerald Services – CEECO's contractor

(EPA Criminal Investigation Division)



Cleaning the system

Emerald discharged 4,500 gallons of water upstream of the CEECO connection to flush the pipes.

- Pushed oil to Port's pump station
- They also skimmed the first 5 manholes upstream of PS 4102





Environmental Services



CEECO Oil Release
Port of Tacoma Pump Station
After Flushing Sewer Main

02/06/2009

Cleaning the system - Initial Cleaning



Oil/Water Separator Connection Point



On-going Monitoring



Flushing the Lower Segments

- Emerald then dropped 4,500 gallons of water into the sewer upstream of PS 4102 to push the oil downstream.
- The City installed and monitored sorbents in the first 5 manholes.
- The City composited solids sampled from the sewer main to test for TCLP metals.



On-going Monitoring





Issued Notice of Violation with Cost Recovery and Penalty



City of Tacoma
Public Works Department

April 14, 2009

Mr. David Swanson, President
Coast Engine and Equipment Company
4012 SR 509 South Frontage Road
Tacoma, WA 98421

Hand Delivered

David Swanson 4-14-09
Received By: Date:

Subject: Notice of Violation and Civil Penalty with Corrective Action Order and Recovery of Supplemental Charges

Dear Mr. Swanson:

Under the legal authority granted in Tacoma Municipal Code (TMC) Chapter 12.08 and 40 CFR Part 403.8(f)(1), Coast Engine and Equipment Company (CEEEO), is hereby issued a Notice of Violation and Civil Penalty with Corrective Action Order and Recovery of Supplemental Charges for violations of TMC Chapter 12.08. These violations are the result of the release of petroleum oil to the municipal sanitary sewer system.

A civil penalty of \$3,000 has been assessed for three violations as described in the enclosed Notice of Violation. TMC Chapter 12.08.675-*Violations-Civil Penalties*, allows penalties up to \$5,000 per day for each violation.

As allowed by TMC Chapter 12.08.200 -*Enforcement procedures* - a corrective action order is hereby issued to CEEEO. This action order is the assembly, submittal for approval, and implementation of an inspection, maintenance, and sampling plan. This plan is for the proper inspection and maintenance of the oil/water separator and the proper collection of samples of effluent from that separator to assure compliance with local limits.

Supplemental charges of \$9,458.47 are also being assessed to recover the employee time and materials used to investigate and mitigate the impact of the oil on the municipal sanitary sewer system. TMC Chapter 12.08.610-*Property owner liability - Supplemental Charges* allows the City to assess supplemental service charges equal to the City's direct, indirect, and consequential costs against the owner from which the discharge in violation of this chapter originates.

The cleanup extended over several weeks and has now essentially concluded except for some on-going sorbent monitoring. No further cleanup work associated with this violation is required by CEEEO. This Notice of Violation also amends the January 29, 2009 letter delivered to CEEEO.

Unless you wish to appeal the decision, a check for \$12,458.47 payable to the City Treasurer, must be submitted to the attention of Amy Middleton at City of Tacoma, Environmental Services Customer Support, 2201 Portland Avenue, Tacoma, WA 98421, **within 30 calendar days of receiving this notice.**



CEECO was cited for:

- Discharging petroleum oil in amounts that would cause interference with the treatment works. (TMC Chapter 12.08.020.B.3)
- Discharging a slug load. (TMC Chapter 12.08.020B.14)
- Not properly operating and maintaining their pretreatment equipment. (TMC Chapter 12.08.040.D)



And Supplemental Charges for:

- \$8,609 in labor (includes benefits & overhead)
- \$849 in laboratory costs and sorbent materials



CEECO's Explanation of What Happened

- On January 8th (2009) an employee drained two fuel tanks into a tote (approx. 150 gallons).
- The next day the employee noticed the tote had been moved, but assumed someone had moved it to the oil containment area.
- During their January 26th investigation into the causes of the fuel release, CEECO was unable to locate this tote.
- They believe another employee dumped the fuel into the Mart Room, assuming the contents were "rinsate".

CEECO's Explanation

- CEECO reached this conclusion because the fuel was not dyed red (non-taxed), as is locomotive and other off-road fuel in Washington.
- The fuel they removed from the Alaskan locomotive had the appearance of rusty or muddy water.
- Based on all of these conclusions, CEECO believes this to be an isolated event.



CEECO's Solution

“We have trained all employees and reinforced the labeling and containment policies at CEECO. We have also changed the type of labels used, so there are standard labels across the property.”



The Total Cost to CEECO

- Over \$9,400 in City time and materials to investigate, monitor, and cleanup oil.
- A \$3,000 penalty.
- Approximately \$70,000 to clean their sump, oil/water separator, clean and flush our sewer main and dispose of the accumulated waste.
- This release cost CEECO about \$540 per gallon.

Conclusion of Field Monitoring





Lessons Learned and Changes Made

- Past history and on-going monitoring reports are not a substitute for regular inspections.
- It's important to observe how a business collects their samples.
- The value in fostering cooperative relationships with state or federal agencies.
- We now conduct regular inspections of pump station wet wells.
- We produced an illicit discharge training video for City staff.



**Report Illicit Discharges
Call the Source Control
Pager:**

253.428.2721 24/7

**Source Control, Public Works, Environmental
Services office number: 253.591.5588**



Contact Information

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City of Tacoma

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