



BRIDGING LUST EXCAVATIONS WITH UST CLOSURES AND INSTALLATIONS

Proactive Notification and Excavation Requirements for UST closures at known LUST sites.

PROGRAM BACKGROUND

- Small state
- Small program
- Typically small sites
- Almost all tank removals have an inspector present

GOAL IS COLLABORATION

- Collaboration with the tank owner and consultant encourages preparation + streamlined projects
- Internal collaboration means details are not missed
- We must be intentional at it!
- Fewer surprises!

TYPICAL PROCESS

- Application
- Scheduling
- Tank Removal
- Action or Closure

ORIGINS OF NEW PROCESS

- Most field decisions were being made without much thought and soil removal was not occurring at the necessary scale
- Very little planning was being done, and owners, contractors, and consultants were not prepared to encounter contamination
- Often no one at tank closures knew the site history

ORIGINATED IN FRUSTRATION

- Our one opportunity was being wasted!

PROCESS OVERVIEW

- 3 Components
 - Internal Communication
 - External Communication
 - Setting a clear alternate goal

PROCESS

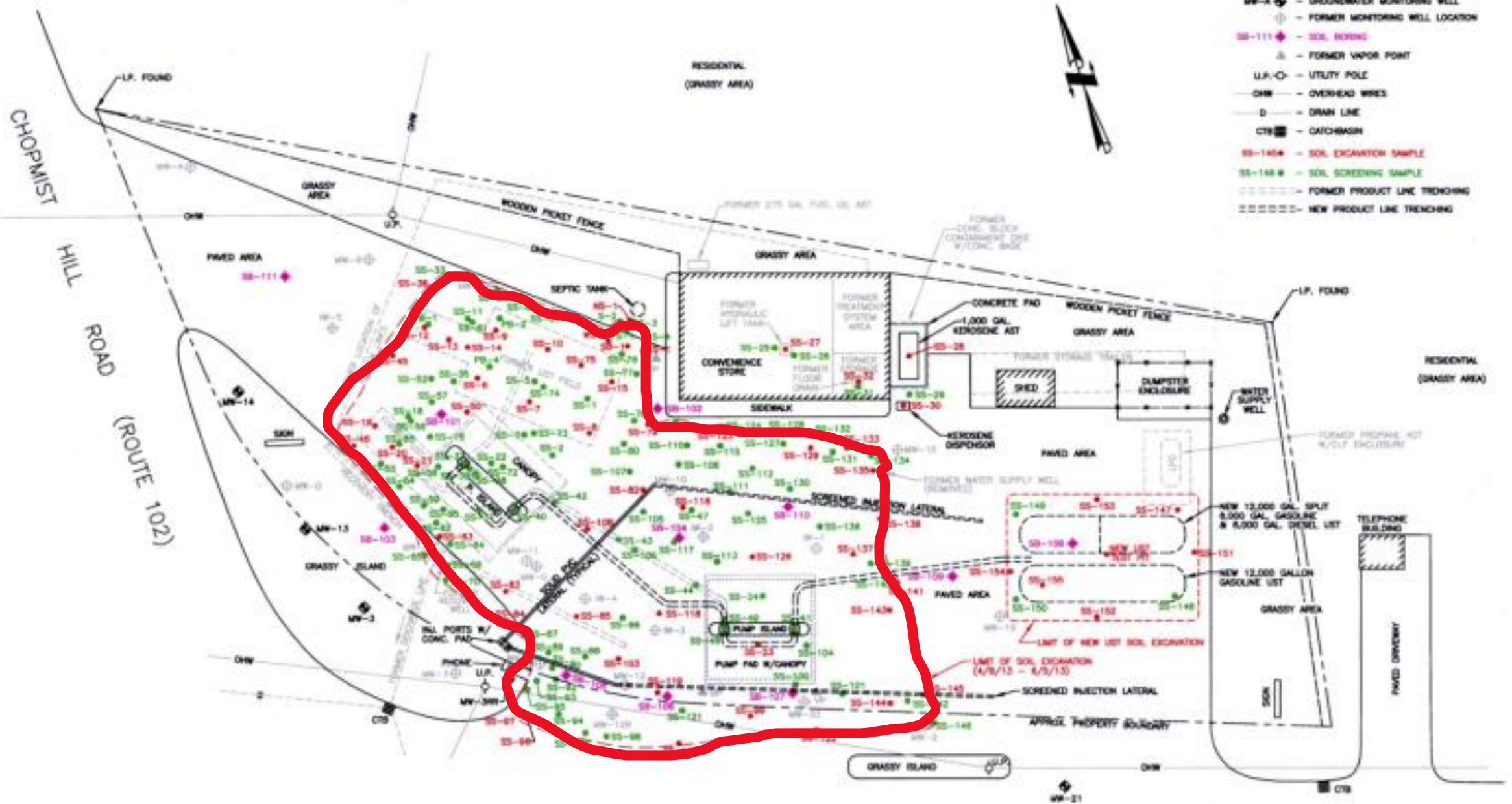
- Site is assigned to LUST PM rather than regularly scheduled closure inspector
- Uniform “head’s up letter” for known active or former LUST sites.
- Same for most sites to establish the baseline we will be working from
- Include the intention for excavation in all correspondence! We ask that a machine capable of digging to 18-20 feet be on site for most sites.

“HEAD’S UP LETTER”

- Includes a paragraph outlining a very brief site history and asks the consultant to complete questions
- Property Status (Drinking water source? Any monitoring wells? Other issues?)
- Soil Management (Screening process? Sampling Plan? Separation of soils?)
- Construction (Canopy to remain? New tanks? Dewatering?)

3004 – 3RD OLDEST OPEN SITE

- Site began formal corrective action in 1993, and was opened in 1988
- Early test of this concept in 2013 – no formal notification



LEGEND

- MW-1 - GROUNDWATER MONITORING WELL
- FORMER MONITORING WELL LOCATION
- SS-111 - SOIL BORING
- FORMER VAPOR POINT
- U.P. - UTILITY POLE
- OHW - OVERHEAD WIRES
- D - DRAIN LINE
- CTB - CATCHBASIN
- SS-145A - SOIL EXCAVATION SAMPLE
- SS-145B - SOIL SCREENING SAMPLE
- FORMER PRODUCT LINE TRENCHING
- NEW PRODUCT LINE TRENCHING



GRASSY ISLAND

MW-21

SOIL

SOIL

SOIL

SOIL

(ROUTE 102)

HILL ROAD

CHOPMIST

RESIDENTIAL (GRASSY AREA)

RESIDENTIAL (GRASSY AREA)

APPROX. PROPERTY BOUNDARY

NEW 12,000 GAL. SPLIT 8,000 GAL. GASOLINE & 4,000 GAL. DIESEL UST

NEW 12,000 GALLON GASOLINE UST

LIMIT OF SOIL EXCAVATION (4/8/13 - 6/5/13)

LIMIT OF NEW UST SOIL EXCAVATION

SCREENED INJECTION LATERAL

FORMER WATER SUPPLY WELL (REMOVED)

KEROSENE DISPENSER

FORMER STORAGE TANKS

WOODEN PICKET FENCE

CONCRETE PAD

1,000 GAL. KEROSENE AST

FORMER TREATMENT SYSTEM AREA

FORMER AUTOMATIC LEFT TANK

WOODEN PICKET FENCE

GRASSY AREA

FORMER 275 GAL. FUEL OIL AST

GRASSY AREA

SEPTIC TANK

OHW

WOODEN PICKET FENCE

GRASSY AREA

U.P.

OHW

GRASSY AREA

U.P. FOUND

OHW

GRASSY AREA

U.P.

OHW

GRASSY AREA

U.P. FOUND

OHW

GRASSY AREA

U.P.

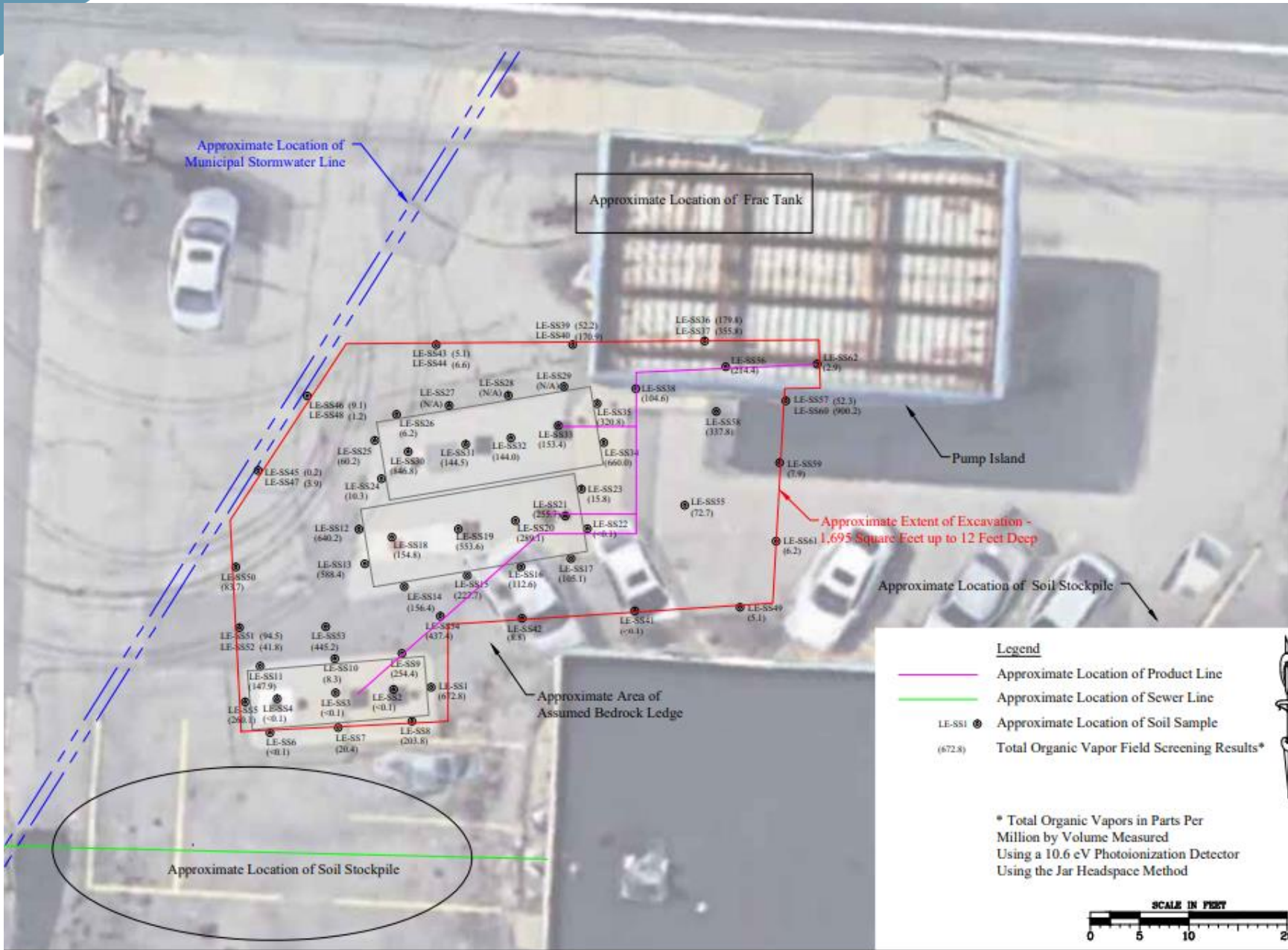
OHW

3004 – 3RD OLDEST OPEN SITE

- Canopy was removed! A huge success!
- Source was properly excavated (4500 tons)
- Then MNA was successful!

SMALL MOM AND POP

- Original release in 1997
- 580 tons removed in 2018
- Follow-up Site Investigation was done and site has been ND in the 4 quarters since.
- Waiting on decommissioning report to issue the NFA



Approximate Location of Municipal Stormwater Line

Approximate Location of Frac Tank

Pump Island

Approximate Extent of Excavation - 1,695 Square Feet up to 12 Feet Deep

Approximate Location of Soil Stockpile

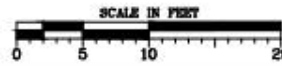
Approximate Area of Assumed Bedrock Ledge

Approximate Location of Soil Stockpile

Legend

- Approximate Location of Product Line
- Approximate Location of Sewer Line
- LE-SS1 (672.8) Approximate Location of Soil Sample
- Total Organic Vapor Field Screening Results*

* Total Organic Vapors in Parts Per Million by Volume Measured Using a 10.6 eV Photoionization Detector Using the Jar Headspace Method





AN EXAMPLE OF FAILURE: HOSPITAL IN PROVIDENCE

- Could not be excavated in 1998 due to use as active hospital
- Corrective Action plan required in 2020
- We “lightly” recommended excavation in the CAP letter
- Owner decided to close the tanks and excavate





AN EXAMPLE OF FAILURE: HOSPITAL IN PROVIDENCE

- Decided (at the closure) not to dig at the UST closure, instead opted to install 10-15 new borings and wells several months later
- Separate excavation plan now needed, now it is September and the project has not moved forward

CHALLENGES

- Everyone still might not be ready
- Some consultants ignore the questions, but are prepared to excavate
- “its not that bad” or “we already have an NFA from last time”
- The goal is often to get the new tanks in ASAP, and excavation interferes with this.

BENEFITS WE HAVE SEEN

- The sites are almost entirely legacy sites
- Time is planned in for remediation
- It's a fun surprise when it's clean rather than the horrible surprise of DEM requiring soil removal
- Less expensive since the equipment is already on the site, faster than waiting for a separate excavation

COMMUNICATION IS KEY!

- Managing Expectations
 - Be prepared for the worst!
- Openness about solutions and likely challenges

QUESTIONS?

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