

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

#### **Jackson District**

Argus Chris Matthewson

**Remediation and Redevelopment** 

**Jackson District** 

### **Argus Buildings Facility**

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ARGUS

Fig.

### Argus 1: 535 W William St Argus 2 400 Fourth St

ARGUS



## Background



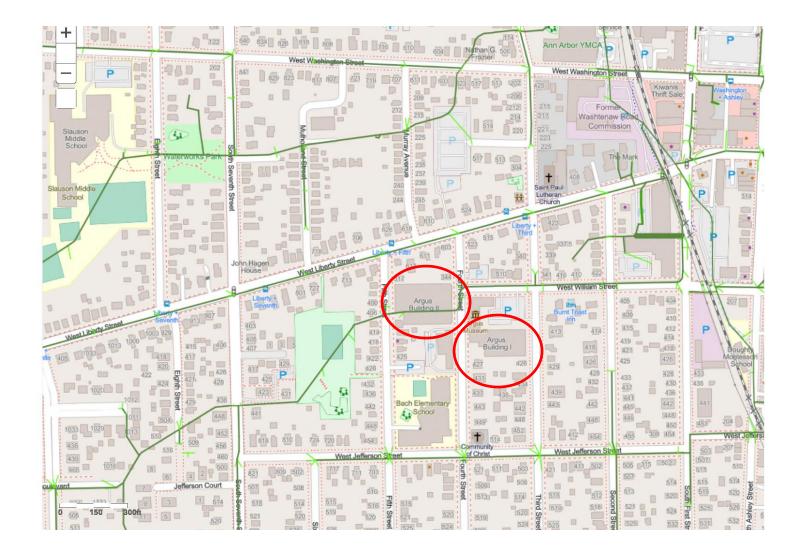
Oil Tank Buried

The new 10,000 gallon oil tank is covered with concrete after being placed in excavation in front of Plant I. The oil in this tank would heat the plant from 12 to 14 days in zero weather. It holds enough oil to heat an average 5 room house 10 to 12 winters.

- Argus Camera Co. manufactured optical and photographic equipment between 1931-1963
  - Variety of industrial processes: main ones associated with current soil and groundwater contamination were vapor degreasing and chrome plating
  - Additionally, underground storage tanks containing fuel oil were used for heating until 1982

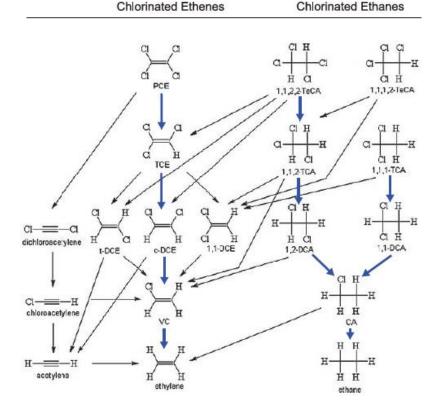


#### Area Map



# **Chemicals of Concern**

- Chlorinated Solvents
  - Tetrachloroethylene (PCE),
    trichloroethylene (TCE),
    carbon tetrachloride
    - Breakdown products: cis and trans-1,2dichloroethylene, chloroform
- Petroleum (fuel oil)



## **Environmental Investigation**

Investigation conducted by Geosyntec on behalf of liable party

- Soil and Groundwater contamination initially found on the Argus 2
- More recent sampling has confirmed contamination source on Argus 1
- Groundwater contamination has migrated off-site
  The extent of contamination has not been delineated and investigation is still ongoing



## **Exposure Pathways**

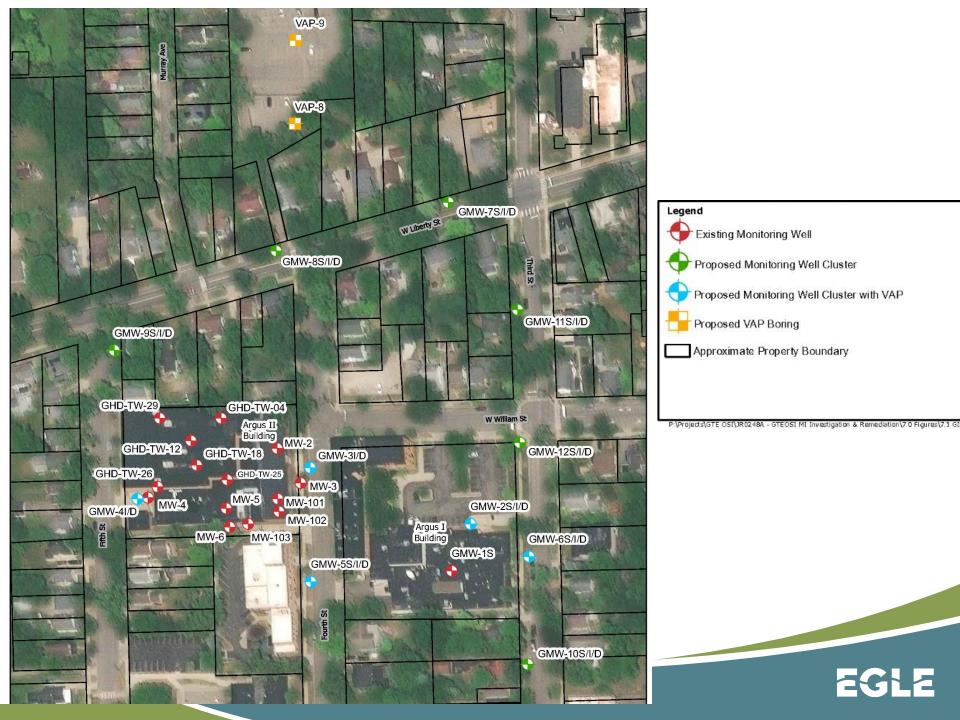
- Vapor Intrusion
  - Main pathway of concern; mitigation systems have been installed in multiple homes due to concentrations detected above criteria
- Drinking Water
  - Drinking water is supplied by the city of Ann Arbor in the area
- Groundwater/Surface Water Interface (GSI)
  - Huron River approx. one mile north
  - Allen Creek Drain runs under Argus 1



## **Current Investigation Status**

- A groundwater investigation plan was submitted and approved in January
  - GSI/preferential pathway component was submitted and approved in March
- Vapor intrusion investigation is ongoing





## **Preferential Pathway Investigation**



#### Legend

Soil Boring with Temporary Monitoring Well and Temporary Soil Gas Probe

- 🔺 Temporary Soil Gas Probe
- Vapor and Water Sampling Location from Eber White Drain
- Property Boundaries
- Underground Stormwater Utility

Notes

Aerial imagery acquired from Washtenaw County MapWashtenaw, 2018.
 Parcel boundaries were obtained from Washtenaw County.
 Utility information was obtained through MISS DIG design tickets.
 Locations are approximate.

#### Proposed Sampling Locations

400 Fourth Street Ann Arbor, Michigan

Ceosyntec consultants Ann Arbor, Michigan 2023/12/15

EGLE

Figur



#### Questions



This illustrates a chemical spill from an underground storage tank that entered the ground, moved through the soil and groundwater to an area where vapors from the spill could enter a nearby home.



# Armen Cleaners

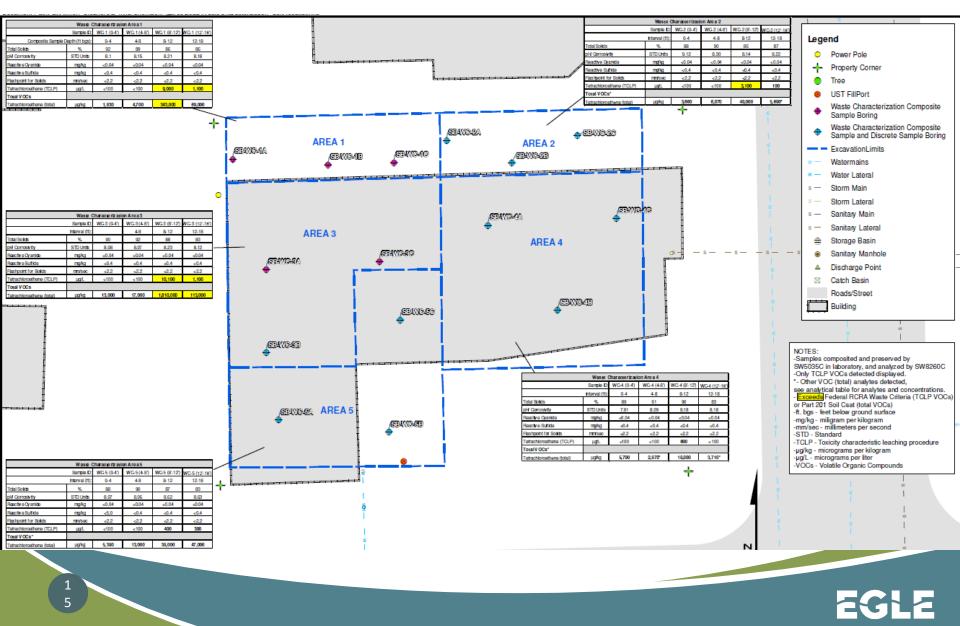
630 S. Ashley St., Ann Arbor, MI Washtenaw County Dry cleaner in operation since the 1950s



## Work Completed

- December 2021 Building abated
- January 2022 Building demolished
- February 2022 Waste Characterization Sampling
- Remediation delayed until 2023

### Waste Characterization Sampling



### **Remedial Actions**



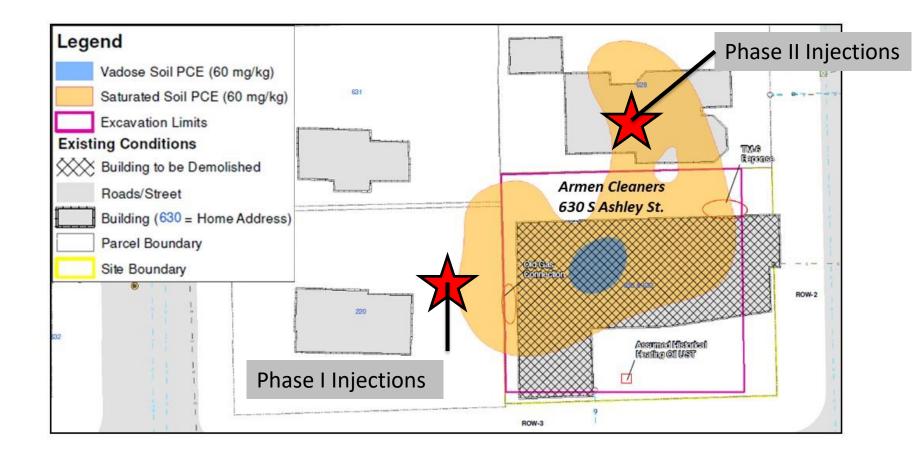
## Status

 April 2024 – Remedial activities completed, damaged sidewalk replaced, and site restored with topsoil and seed





#### **Future Work**



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## **Broadway Park West**

Ashley Lesser, P.E. EGLE-RRD, Jackson District Office (517) 285-6324 | lessera@michigan.gov



## **History of Operations**



- 1899 Manufactured Gas Plant (MGP) constructed on eastern portion of property
- 1938 MichCon acquires MGP during consolidation
- Late 1950s MGP decommissioned
- Early 1960s-2010 Site of MichCon Broadway Service Center
- Contaminants identified: BTEX, SVOCs/PAHs, metals, cyanide

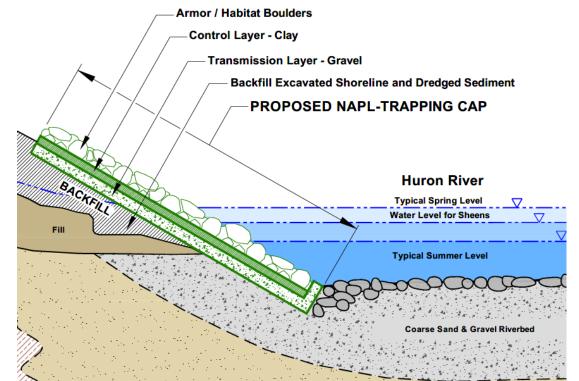






## NAPL Trapping Cap

- Constructed in 2013
- Impermeable cap prevents oily material (NAPL) from reaching Huron River
- Sumps allow NAPL to be monitored and collected if it accumulates behind the cap









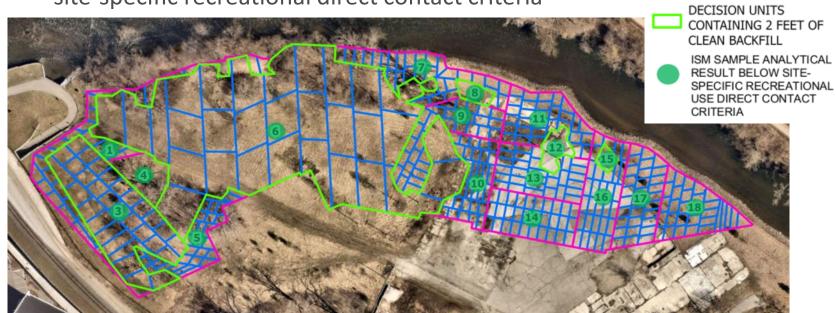
# **GSI** Monitoring

- GSI = Groundwater-Surface Water Interface
- Site-specific criteria approved in 2010; updated in 2019
- 10-year monitoring period began in 2013
  - Just received 2023 data (final round)
  - NAPL has not been observed in any sumps
  - No exceedances within GSI compliance wells only in interior areas of the property
  - Wells and sumps will be removed



### **Excavation and Verification Sampling**

 Results for <u>all</u> decision units are <u>below</u> site-specific recreational direct contact criteria





DECISION UNITS

DECISION UNIT INCREMENTS

## Questions?







Michigan Department of **Environment, Great Lakes, and Energy** 

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