

• SHARP reSHARP results		v2024.04.29	Ecology Info	
• SHARP rating	Medium		ERTS	none
• SHARP date	01/26/2024		CSID	3405
• EJFlagged?	✓ – No Override		FSID	1220
• LD confidence level	low		VCP	none
• Cleanup milestone	feasibility study		UST ID	none
• SHARPster	Sam Meng		LUST ID	none

◆ Historic SHARP first SHARP results		◆ SHARP Tool version	
◆ SHARP rating	medium		
◆ SHARP date	45317		
◆ EJFlagged?	EJFlagged - No Override		
◆ LD confidence level	low		
◆ Cleanup milestone	feasibility study		
◆ First SHARPster	Jeff Wirtz		

SHARP Media	Scores	Confidence	Additional Factors	
Indoor air	D4	high	multiple chemical types	✓
Groundwater	C1	high	risk to off-site people	✓
Surface water	A1	high	climate change impacts	✓
Sediment	B1	medium	plant/animal tissue data	✓
Soil	C1	high		

Location and land use info	
2901 Taylor Way, Tacoma, Pierce County, 98421	
Primary parcel	0321351053
Land use	industrial
Responsible unit	SWRO

Sources reviewed
2022, Cleanups in Commencement Bay Nearshore/Tideflats Superfund Site, EPA
2021, Feasibility Study, Pioneer Technologies
2013, Final RI Report, DOF
2011, Factsheet, Ecology

Primary census tract	Associated census tracts
53053060200	SHARP it

Local demographics comments

A zero was applied to all EJscreen parameters because the EJscreen website was not available at the time of rating.

Source/source area description

The Arkema Inc. site was formerly a chemical plant, in the past called Atofina Chemicals, Elf Atochem, and Pennwalt. It is located at 2901 Taylor Way, on the shore of the Hylebos Waterway. The Port of Tacoma bought the property in 2007. The Site was used as a chemical manufacturing facility from 1927 to 1997 and the majority of the manufacturing operations were performed in the former Central Manufacturing Area. The products that were manufactured in that area included chlorine, sodium hydroxide (caustic), sodium chlorate, hydrochloric acid, and sodium arsenite (Penite). Penite was manufactured between circa 1944 and the early 1970s. The remaining chlorine-based manufacturing facility operations ceased in 1997, at which time the manufacturing facilities were dismantled and removed from the Site. The Port removed all remaining aboveground structures in 2008. The Site is covered with vegetation, crushed rock, and some former building/tank foundations.

Soil comments

Soil COPCs include arsenic, chromium, copper, lead, mercury, selenium, zinc, and sum DDD/DDE/DDT.

Groundwater comments

Groundwater COPCs include arsenic, copper, mercury, nickel, chloroform, tetrachloroethene, trichloroethene, vinyl chloride, and hexachlorobutadiene.

Surface water comments

The main arsenic plume includes groundwater within this plan-view area in the Upper, Intermediate, and Deep Aquifers. Groundwater discharge to surface water is a complete exposure pathway. Several threatened species of fish may occasionally be present near the Site.

Sediment comments

The potential for groundwater transport of arsenic in the main arsenic plume to cause unacceptable exposures in Hylebos Waterway surface water and sediment is the primary concern for this Site. Intertidal/subtidal areas in the Hylebos Waterway were addressed under the CBNT Superfund Site, which is under EPA jurisdiction.

Indoor air comments

The Port removed all remaining aboveground structures in 2008. The Site is covered with vegetation, crushed rock, and some former building/tank foundations.

Additional factors comments

Onsite COPCs include arsenic, copper, mercury, nickel, chloroform, tetrachloroethene, trichloroethene, vinyl chloride, and hexachlorobutadiene. The site is on Commencement Bay and subject to sea level rise.

Site history[Go to top](#)

The Arkema Inc. site was formerly a chloro-alkali plant. It produced a variety of chemicals, including:

- Chlorine—used as a bleach and disinfectant, and for making pesticides, rubber, and solvents.
- Sodium hydroxide (caustic soda)—used to make soaps, rayon, paper, explosives, dyes, and petroleum products.
- Sodium chlorate—an herbicide.
- Hydrochloric acid—used in making fertilizers and dyes, and in the electroplating, textile, and rubber industries.
- Penite—an herbicide containing arsenic.

The chemical company disposed of some of the waste from making these chemicals on the property. The “Penite Pits” held sludge that leached arsenic in the groundwater below. Other ponds held different kinds of waste, like asbestos and sodium hydroxide. In 1985, a storage tank leaked sodium chlorate and highly toxic hexavalent chromium.

Arkema began investigating the site in 1981. In 1987, Arkema entered into a cleanup agreement with Ecology, but the cleanup done was not complete. The company took a number of cleanup actions, including:

- Digging up and treating soil from the 1985 sodium chlorate and chromium spill.
- Removing 3,000 cubic yards (about 600 dump truck loads) of arsenic-laden Penite sludge.
- Installing a sheet pile wall to block contaminated groundwater from going into the Hylebos Waterway.
- Pumping groundwater to reduce its flow to the Hylebos Waterway and to remove arsenic and volatile organic compounds.

Note: Copied to new version of SHARP by Meredith Bee

Overflow - Site contamination and cleanup history

No overflow

Arkema Inc

3405 Arkema Inc 20240126

reSHARP

SHARP rating — Medium

SHARP Report — Part 2 of 2

Conceptual site model

01/26/2024



Assessment scores by environmental medium

