

Tank Management Section



Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

SITE FACT SHEET **1999 Site Name: Chloramone** **Kuehne Chemical Company (7-000231)**

PROGRAM/REGULATION

This site is regulated by the Aboveground Storage Tank Program. The regulations are enacted in accordance with Title 7 Del.C. Ch. 60, *Environmental Control*, and Title 7 Del.C. Ch. 74A, *The Jeffrey Davis Aboveground Storage Tank Act*.

SITE DESCRIPTION

This site is identified in the New Castle County tax maps as tax parcel 12-003.00.005 and is zoned "Heavy Industrial." The site incorporates 4.76 acres. The entire site is within the Coastal Zone; however, no part of the site is within a New Castle County Water Resource Protection Area (WRPA).

SITE LOCATION

The property is located at 1645 River Road, New Castle, DE 19720. The site is bounded by Route 9 (River Road) to the west, Oxy Chemical to the south, the Delaware River to the east, and marshland to the north. It was open space prior to 1961.

CURRENT STATUS

This site is currently in use as a chemical processing plant.

Last updated: 7/25/18 14:49 by Kimberly Gould

CONTACT

DNREC Tank Management Section: (302) 395-2500

SITE OPERATION HISTORY

This site was initially owned by The Chloramone Corporation. Kuehne Chemical Company acquired The Chloramone Corporation in 1989 and built their chloralkali plant in New Castle, Delaware in 1998.

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

There are currently no environmental investigations or actions at this site.

CONTAMINANTS OF POTENTIAL CONCERN (COPC)

Currently 14 registered aboveground storage tanks are in use on the site. Two underground and one aboveground storage tanks were previously removed with oversight from DNREC Tank Management Section

CLEANUP STAGE

There are no active remediation programs at this site. The Kuehne Chemical Company is considered one of the 14 sites that will be eligible for conversion through the Coastal Zone Conversion Permit Act.

Tank Management Section



Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

SITE FACT SHEET **1999 Site Name: Chloramone** **Kuehne Chemical Company (7-000231)**

SITE IMAGES

NO SITE IMAGES CURRENTLY AVAILABLE

SITE MAPS



2017 GOOGLE AERIAL



CHLOROMONE/KUEHNE
COASTAL ZONE BOUNDARY



SITE FACT SHEET for Citisteel Area A (DE-0046)

SITE DETAILS

Address:	4001 Philadelphia Pike, Claymont, DE 19703 US		County:	New Castle	
Tax Parcel(s):	0605900155, 0605900018, 0605900146, 0604800001, 0605900154, 0605900150, 0606000001, 0605900143, 0604800041, 0605900153, 0605900168, 0605900152, 0605900151, 0605900149, 0605900145, 0605900144, 0606000019, 0605900148, 0605900147	Site Acreage:	420.00	Watershed:	Naamans Creek
AKA:	Phoenix Steel Corp.				
Site Category:	Voluntary Cleanup Program	Cleanup Phase:	Remedial Investigation		

1999 Site Name: Citi Steel

SITE DESCRIPTION

The CitiSteel site (DE-0046), AKA EVRAZ - Claymont Steel, is located at the intersection of Naamans Road and Philadelphia Pike in Claymont, New Castle County, Delaware. The site covers a total of 420 acres, and is bound by Interstates 95 and 495, Naamans Road and the Delaware River. From the early 1900s until 2013, the production and manufacture of steel was conducted at the site. Land use is zoned for Industrial (I) and Heavy Industrial (HI) use. The site is surrounded by residential properties to the north and west, and industrial facilities to the east.

The Delaware Department of Natural Resources and Environmental Control (DNREC) regulated the site as two separate areas. The former scrapyard was called Area A (DE-0046). The property between the Amtrak rail line and the Delaware River was called Area B (DE-0307). As of January 1, 2015, the CitiSteel Area A site absorbed the CitiSteel Area B site, and now encompasses former Area A, former Area B, and the remainder of the former steel mill production areas.

Previously, the site contained office buildings, a scrap metal sorting area, active steel production facility buildings, a 13 acre sedimentation pond, portions of the old and relocated Naamans Creek, a Resource Conservation Recovery Act (RCRA) program capped solid waste landfill and a historic slag aggregate area. Between early 2015 and early 2017, demolition activities took place at the site. Nearly all above ground structures and equipment were demolished and/or removed from the site. Currently the site contains former foundations and building pads, utility lines, former rail lines and open space.

CURRENT STATUS

The Citisteel - EVRAZ Claymont Steel facility and all associated property was purchased by Environmental Liability Transfer Company (ELT) in late 2014. A Voluntary Cleanup Program (VCP) Agreement between DNREC-SIRS and Claymont Properties, LLC (subsidiary of ELT) was finalized in January 2015 for environmental assessment through Certificate of Completion of Remedy (COCR) of the entire 420 acre site. The properties have been separated into 7 distinct Operable Units (OUs), as described below. A current status is also included for each operable unit. A map showing operable units is attached.

OU-1: Final Plan Issued on June 24, 2016. Soil/rock/recycled concrete approved to be brought onsite for use during future site development, beginning June 15, 2017.

OU-2: Revised Remedial Investigation Report submitted to DNREC on May 10, 2018.

OU-3: Revised Remedial Investigation Report submitted to DNREC on May 8, 2018.

OU-4: Final Plan Issued on July 7, 2016. The cooling pond must be closed/filled.

OU-5: Final Plan Issued on July 7, 2016.



SITE FACT SHEET for Citisteel Area A (DE-0046)

OU-6: Final Plan Issued on March 3, 2017. Property was sold for redevelopment.

OU-7: Final Plan Issued on December 22, 2017.

1999 Site Name: Citi Steel

Of Note: The CitiSteel (EVRAZ Claymont Steel) site is considered one of the 14 sites that will be eligible for conversion back to heavy industrial use through the Coastal Zone Conversion Permit Act. The Coastal Zone Act site boundary is limited to certain areas between Philadelphia Pike and the Delaware River, and not the entire site boundary.

SITE OPERATION HISTORY

The steel mill began operation is approximately 1917, and has been operated under the names Worth Steel, Phoenix Steel, CitiSteel, and EVRAZ-Claymont Steel. Most recent processes at the site included iron and steel scrap metal handling, steel production, and semi-finished and finished product preparation. Phoenix Steel was the producer of steel plates used in shipbuilding and in the construction of steel tanks. Also produced at the Site were rolled pipe, high strength steel, carbon and alloy steel, and clad stainless steel. CitiSteel produced primarily carbon steel plate at the facility.

SITE ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

Some initial assessment work was conducted at the site on the area of land between the Amtrak lines and the Delaware River (known formerly as CitiSteel Area B) in the form of a Surface Impoundment Assessment in January of 1979. The area was excavated initially for use in construction of a blast furnace in 1957. The foundation for this furnace was expanded and prepared as an unlined sedimentation basin in 1957, but was not used until 1972. The basin had been excavated to bedrock in some sections – to a total depth of 30 feet. As of the date of the assessment, no solids had been removed from the impoundment. The brief assessment concluded that due to the character of the soils beneath the impoundment, and that the movement of the water in the basin was towards the river, no impact was expected from the basin – however, no sampling was conducted.

A Preliminary Assessment (PA) was completed on the Area B site by a contractor for the USEPA in October 1981, specifically on the dump site adjacent to the Delaware River (the Electric Arc Furnace (EAF) Dust Landfill). The disposal area had received waste materials from 1968 through 1980. The waste material disposal at this dump site consisted primarily of a byproduct from the steel making now known as KO61 (electric arc furnace dust) – which generally contains elevated concentrations of Chromium and is a listed hazardous waste under the RCRA program. Prior to disposal, Phoenix Steel added construction debris and steel slag to the waste to help physically stabilize the materials. The PA recommended that the site be classified as a low priority site that required the installation of monitoring wells and subsequent long term monitoring.

A Site Inspection (SI) was completed by the USEPA in August of 1982 on the disposal area mentioned above. Limited sampling was completed on ponded areas on the waste disposal area. Detectable levels of several metals were discovered in the sediments. A second PA was completed at the Site in December 1983 by the DNREC Solid Waste Branch (Solid and Hazardous Waste Management Section) and was presented to USEPA Region III. The purpose of the PA was to review the investigations completed by the EPA and to make further recommendations, if needed. DNREC recommended that further work be completed at the Site and recommended that the property owner hire an engineer to apply proper site management techniques which would include capping and grading of the site. DNREC also recommended the installation of groundwater monitoring wells at the Site.

In June 1987, the United States Environmental Protection Agency (USEPA) conducted an initial inspection of



SITE FACT SHEET for Citisteel Area A (DE-0046)

the entire property (at that time owned by Phoenix Steel). The USEPA identified 18 problem areas at the site. The major areas of concern included an Electric Arc Furnace (EAF) dust), and a 28 acre parcel containing high concentrations of zinc, chromium, and nickel. Under contract to the USEPA, NUS (EPA contractor) conducted a non-sampling site reconnaissance of the site in July 1987. Observations made by NUS were similar to the observations by the USEPA in June 1987. As a result of the inspections, DNREC issued a Consent Order to the property owner (at this time owned by CitiSteel Inc.) on June 1, 1988. The Consent Order described the identified areas of concern, observations and prior studies, as well as recommendations/proposed actions. Guardian Environmental submitted a work plan for activities to be conducted under the Consent Order. The work plan was approved by DNREC in December 1988. Ten tasks were developed to address the 18 previously identified problem areas. Only two of these tasks had not been implemented by January 1990. DNREC granted postponement of remediation for one of the items, a 28 acre parcel (formerly known as CitiSteel Area A), to allow the area to be used for scrap metal storage. For the second item, CitiSteel received a Notice of Violation (NOV) for failure to submit a proposal for capping the EAF dust pile. Subsequently, closure of the former EAF dust pile was completed in 1991.

1999 Site Name: Citi Steel

DNREC completed a Site Inspection (SI) of the active scrap yard property (former Area A) in 2001. The inspection included the collection of soil, groundwater, surface water and sediment samples in and around the scrap yard. Selected samples were submitted for chemical analysis based on preliminary field screening. Four shallow soil samples were reported to contain polychlorinated biphenyl (PCB) Aroclor concentrations in excess of applicable standards. Only one of the samples collected during the SI was reported to contain PCBs in excess of the 25 mg/kg 1988 Consent Order Cleanup Target. In addition to PCBs, polynuclear aromatic hydrocarbons (PAHs) and various metals were detected at concentrations above applicable standards. Based on the results of the SI, DNREC requested that CitiSteel address the active scrap sorting area where high levels of PCBs were detected. A workplan to address the above request was submitted to DNREC in September 2002. The workplan was never approved, and the assessment wasn't completed. DNREC again requested that the assessment be undertaken through the Voluntary Cleanup Program in October 2006. A workplan was approved, and the assessment was completed in January 2007. Thirty six soil samples were collected and analyzed for PCBs and PAHs. Both were detected in soil samples collected during this assessment, however, human health risk calculations indicated that the regulatory standards for cumulative cancer risk and the Hazard Index were met. In addition, groundwater analytical results from existing monitoring wells showed similar results to the 2001 sampling. The monitoring wells were abandoned as part of this assessment. A No Further Action (NFA) letter was issued for the active scrap yard on August 21, 2008, conditional upon the site's continued industrial land use.

DNREC conducted a Site Inspection of Area B property in 2001. Soil and sediment samples were collected, and monitoring wells were installed and sampled during the SI. Minor exceedances of applicable standards were noted, however, DNREC recommended that a No Further Action (NFA) designation be given to the CitiSteel Area B site so long as the use of the site remained industrial. As of January 1, 2015, a comprehensive environmental evaluation has been underway for the entire steel mill property.

SITE CONTAMINANTS OF CONCERN (COCs)

General COCs (soil): Benzo[a]pyrene, Polychlorinated Biphenyls, Iron, Arsenic, Benzene, Benz[a]anthracene, Benzo[b]fluoranthene, Dibenz[a,h]anthracene, Indeno[1,2,3-cd]pyrene, Naphthalene, Antimony, Barium, Cadmium, Cobalt, Chromium, Copper, Lead, Manganese, Mercury, Nickel, Thallium, Vanadium, Zinc, Lead

General COCs (groundwater): Dichloroethane, 1,1-, Benzene, Chloroform, Aluminum, Arsenic, Chromium, Cobalt, Iron, Manganese, Nickel, Selenium, Vanadium, Cyanide



SITE FACT SHEET for Citisteel Area A (DE-0046)

General COCs (soil gas):	Soil Gas COCs Not Entered	1999 Site Name: Citi Steel
General COCs (surface water):	Anthracene, Benz[a]anthracene, Benzo[a]pyrene, Fluoranthene, Pyrene, Aluminum, Barium, Lead, Manganese, Polychlorinated Biphenyls, Benz[a]anthracene	
General COCs (sediment):	Benzo[a]pyrene, Benzo[b]fluoranthene, Dibenz[a,h]anthracene, Antimony, Thallium	

OTHER IMAGES





2017 GOOGLE AERIAL





CITISTEEL
COASTAL ZONE BOUNDARY



SITE FACT SHEET for Citisteel Area A (DE-0046)

1999 Site Name:
Citi Steel



- Legend**
- Swale
 - Operable Unit
 - Identified RECS
 - Naaman's Creek
 - OU-5 Previously Investigated

Source: ESRI, DeLorme, GeoEye, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, OrthoSat, AeroGRID, IGN, Esri, SwireScan, Google Earth, and the GIS User Community, User-Acquired Data: 9/1/2007



FRST STATE CROSSING PROPERTY (AKA CITI STEEL SITE / DE-0046)
SITE PLAN AND OPERABLE UNIT SUBDIVISIONS

4801 PHILADELPHIA PIKE
 CLAYMONT, NEW CASTLE COUNTY, DELAWARE

Prepared by: CLAYMONT PROPERTIES, LLC

Created by: MBR	Date: 01/08/17	FIGURE
Prepared by: ALS	Date: 1/8/2017	
Project No: 4801	Sheet: 01	2
Project No: 4801	Sheet: 01	

ROUX
 4801 PHILADELPHIA PIKE
 CLAYMONT, DE 19933

Tank Management Section



Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

1999 Site Name: Delaware Storage and Pipeline

SITE FACT SHEET

Delaware Storage and Pipeline Company (6-000101)

PROGRAM/REGULATION

This site is regulated by the Aboveground Storage Tank Program. The regulations are enacted in accordance with Title 7 Del.C. Ch. 60, *Environmental Control*, and Title 7 Del.C. Ch. 74A, *The Jeffrey Davis Aboveground Storage Tank Act*.

SITE DESCRIPTION

This site is identified in the Kent County tax maps as tax parcel 4-00-07000-01-1300-00001 and is zoned "General Industrial." The site incorporates 27.4 acres. The entire site is located within the Coastal Zone; a significant portion of the site is within State Regulated Wetlands and also within the floodplain.

SITE LOCATION

The site is located in Little Creek at 987 Port Mahon Road in Kent County and is bounded by the State's Division of Fish & Wildlife Little Creek Wildlife Management Area on all sides.

CURRENT STATUS

The site operates as a bulk storage and transfer facility providing jet fuel for the Dover Air Force Base.

Last updated: 7/25/18 14:45 by Kimberly Gould

CONTACT

Tanks Management Section (302) 395-2500

SITE OPERATION HISTORY

This facility operates as a bulk storage and transfer facility providing jet fuel for the Dover Air Force Base. Delaware Storage and Pipeline Company acquired this facility in 1985.

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

There are currently no environmental investigations or actions at this site.

CONTAMINANTS OF POTENTIAL CONCERN (COPC)

Currently 13 aboveground storage tanks (ASTs) are in use on the site. Three aboveground storage tanks and one underground storage tank were removed in the 1980s. No leaks have been reported at this site.

CLEANUP STAGE

There are no active remediation programs at this site. The Delaware Storage and Pipeline Company is considered one of the 14 sites that will be eligible for conversion through the Coastal Zone Conversion Permit Act.

Tank Management Section



Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

1999 Site Name: Delaware Storage and Pipeline

SITE FACT SHEET

Delaware Storage and Pipeline (6-000101)

SITE IMAGES

NO SITE IMAGES CURRENTLY AVAILABLE

SITE MAPS



DELAWARE STORAGE PIPELINE
COASTAL ZONE BOUNDARY



2017 GOOGLE AERIAL



Solid and Hazardous Waste Management Section



Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

1999 Site Name: DuPont Edgemoor

SITE FACT SHEET

DuPont Edge Moor (Chemours) (DED000800284)

PROGRAM/REGULATION

This is a State-led site, through the Resource Conservation and Recovery Act (RCRA). Corrective Action activities are being lead by the Department's Hazardous Waste Management Program in accordance with Title 7 Del.C. Ch 63.

SITE DESCRIPTION

This site is identified in the New Castle County tax maps as tax parcel 06-153.00.006 and is zoned "Heavy Industrial." The site incorporates 113.29 acres. The entire site is within the Coastal Zone; however, no part of the site is within a New Castle County Water Resource Protection Area (WRPA). The site contained buildings, paved lots, manufacturing equipment and settling ponds. Some buildings remain, much of the manufacturing structures have been demolished.

SITE LOCATION

The 113-acre site sits between the Delaware River to its east, Fox Point State Park to the north, I-495 to the west, and a utility company and Port Ventures LLC to the south. The property is located at 4600 Hay Road, in Claymont.

OWNER/CURRENT STATUS

The current owner, Diamond State Port Corporation (DSPC) acquired DuPont Edge Moor on February 27, 2017. The plant was demolished by DuPont prior to the sale and all applicable permits were transferred to the DSPC. The Port is renewing Corrective Action Permits and is preparing the site Corrective Measures Study. The Port has also retained a contractor to operate a proposed container facility onsite.

Last updated: 8/13/2018

CONTACT

Solid and Hazardous Waste Management Section - (302) 739-9403

SITE OPERATION HISTORY

The former DuPont Edge Moor facility, was a former titanium dioxide manufacturing plant. The site is vacant and under negotiations for a port container operation.

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

In August, 2002, DuPont completed the neutralization and stabilization of 4 surface impoundments at the plant in accordance with a Consent Order. These impoundments were capped for closure and are currently regulated under a Post Closure Permit with a Post Closure Care Plan. The permit provides for ongoing cap maintenance, environmental monitoring and financial assurance. In March, 2006, DNREC issued a Corrective Action Permit HW-03A16, requiring the completion of a RCRA Facility Investigation, which is ongoing. The investigation work plan identified solid waste management units (SWMUs) across the site. A site investigation was completed to determine environmental impacts. The Department reviewed and approved a facility Human Health and Ecological Risk Assessment which will be used to complete a Corrective Measures Study to determine remediation needs.

CONTAMINANTS OF POTENTIAL CONCERN (COPC)

Metals, dioxins, furans in site media

CLEANUP STAGE

Remedial investigations continue at the facility. Of Note: The DuPont Edge Moor site is considered one of the 14 sites that will be eligible for conversion back to heavy industrial use through the Coastal Zone Conversion Permit Act. The Coastal Zone Act site boundary has a larger area than the tax parcel boundary of the facility.

Solid and Hazardous Waste Management Section



Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

1999 Site Name: DuPont Edgemoor

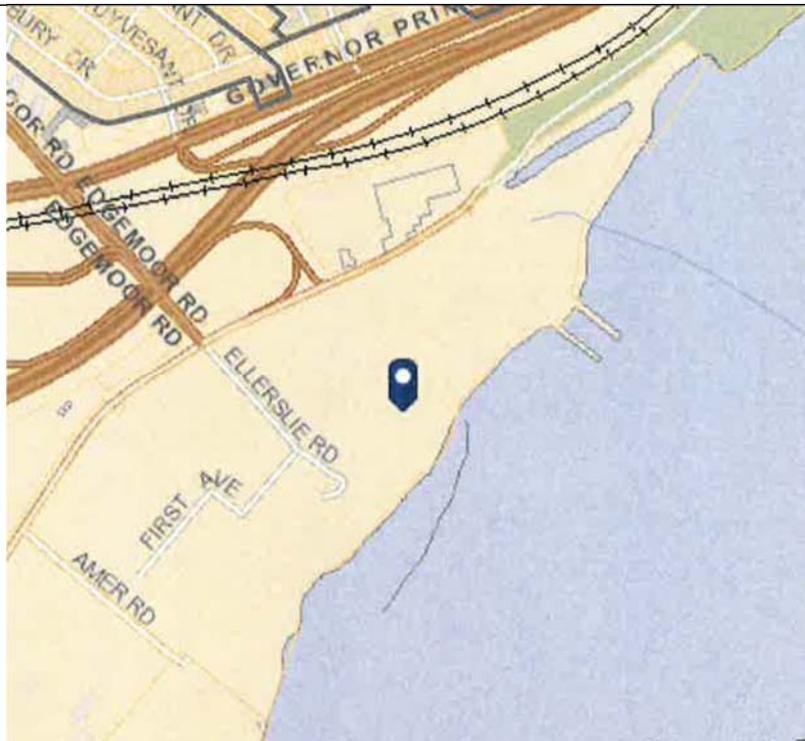
SITE FACT SHEET

DuPont Edge Moor (Chemours) (DED000800284)

SITE IMAGE WITH COASTAL ZONE BOUNDARY



SITE MAPS





SITE FACT SHEET for Delaware City PVC Plant (DE-0007)

SITE DETAILS

Address:	US Route 13 & School House Road, Delaware City, DE 19706 US	County:	New Castle
Tax Parcel(s):	1202000007, 1201300091, 1202000106, 1202000013, 1202000003, 1202000005, 1202000006, 1202000011, 1201300005, 1201300006, 1201300026, 1202030001, 1201300090, 1202000021, 1202000017, 1202000014, 1201300012, 1200700011, 1202000105, 1202000012, 1201300013, 1201300007, 1202000016, 1201300008, 1202000004, 1200700023, 1202100002, 1201300028, 1200800014, 1201300035	Site Acreage:	260.00
AKA:	Stauffer Chemical / Formosa / Akzo Nobel	Watershed:	Dragon Run Creek
Site Category:	National Priorities List (NPL – Superfund)	1999 Site Name:	Formosa Plastics
		Cleanup Phase:	Remedial Action

SITE DESCRIPTION

The 260 acre Delaware City PVC plant, located in the Delaware City industrial area, consists of a polyvinyl chloride (PVC) manufacturing facility owned and operated by Formosa Plastics Corporation of Delaware. Formosa Plastics Corporation is closing this location in 2018.

CURRENT STATUS

A groundwater pump and treat system is operating at the site and site wide groundwater performance monitoring is being performed. The homes and businesses that were offered a connection to public water have been connected to municipal water as of August, 2009. A Supplemental Remedial Investigation was performed in 2017 and the report is being finalized. An EPA Five Year Review is forthcoming.

SITE OPERATION HISTORY

The manufacturing facility was built in 1966 by Stauffer Chemical Company. During early plant operations, lagoons were used to store waste PVC. An additional area of the property was used to bury off grade PVC sludge. Groundwater under the site has been contaminated with solvent chemicals trichloroethylene, 1,2-dichloroethane, and vinyl chloride.

SITE ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

This site was listed as a National Priority List (NPL) site on September 8, 1983. EPA entered into an agreement with Formosa Plastics Corp. of Delaware and Stauffer Chemical Company in 1984. Under this agreement, they agreed to conduct an evaluation of cleanup alternatives for the site, to recommend cleanup options, and to submit plans to carry out these options. In September 1986, EPA signed a Record of Decision (ROD) for the site. During remedial action the groundwater plume was found to extend further increasing the site to approximately 400 acres in size. The cleanup included pumping and treating contaminated groundwater, excavating off-grade materials and contaminated soil for off-site disposal, and properly capping the buried sludge pits. The original agreement was amended in May 1987 to include the requirements of the ROD. The groundwater pump and treat system, which has been operational since January of 1991, treats over 400,000 gallons of water per day. The size of the original contaminant plume has been decreasing over time. In 1992, a second plume of groundwater contamination was discovered. To contain the second plume, additional extraction wells and piping were installed in 2001. The plumes of contaminated ground water have been decreasing and EPA continues to oversee the potentially responsible party funded remedial action. In February 2004 routine sampling of a drinking water well at a facility near the site had concentrations of a site related ground water contaminant above accepted drinking water standards. This contaminant may or may not be associated with the site. The



SITE FACT SHEET for Delaware City PVC Plant (DE-0007)

homes and businesses that were offered a connection to public water were connected to municipal water in August, 2009. This was conducted voluntarily by the site potentially responsible parties under EPA, DNREC and DE- Office of Drinking Water oversight. A Supplemental Remedial Investigation was performed in 2017 and the report is being finalized. An EPA Five Year Review is forthcoming.

SITE CONTAMINANTS OF CONCERN (COCs)

General COCs (soil):	NA	1999 Site Name: Formosa Plastics
General COCs (groundwater):	Trichloroethylene, Vinyl Chloride, Dichloroethane	
General COCs (soil gas):	NA	
General COCs (surface water):	NA	
General COCs (sediment):	NA	

OTHER IMAGES




2017 GOOGLE AERIAL



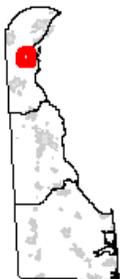
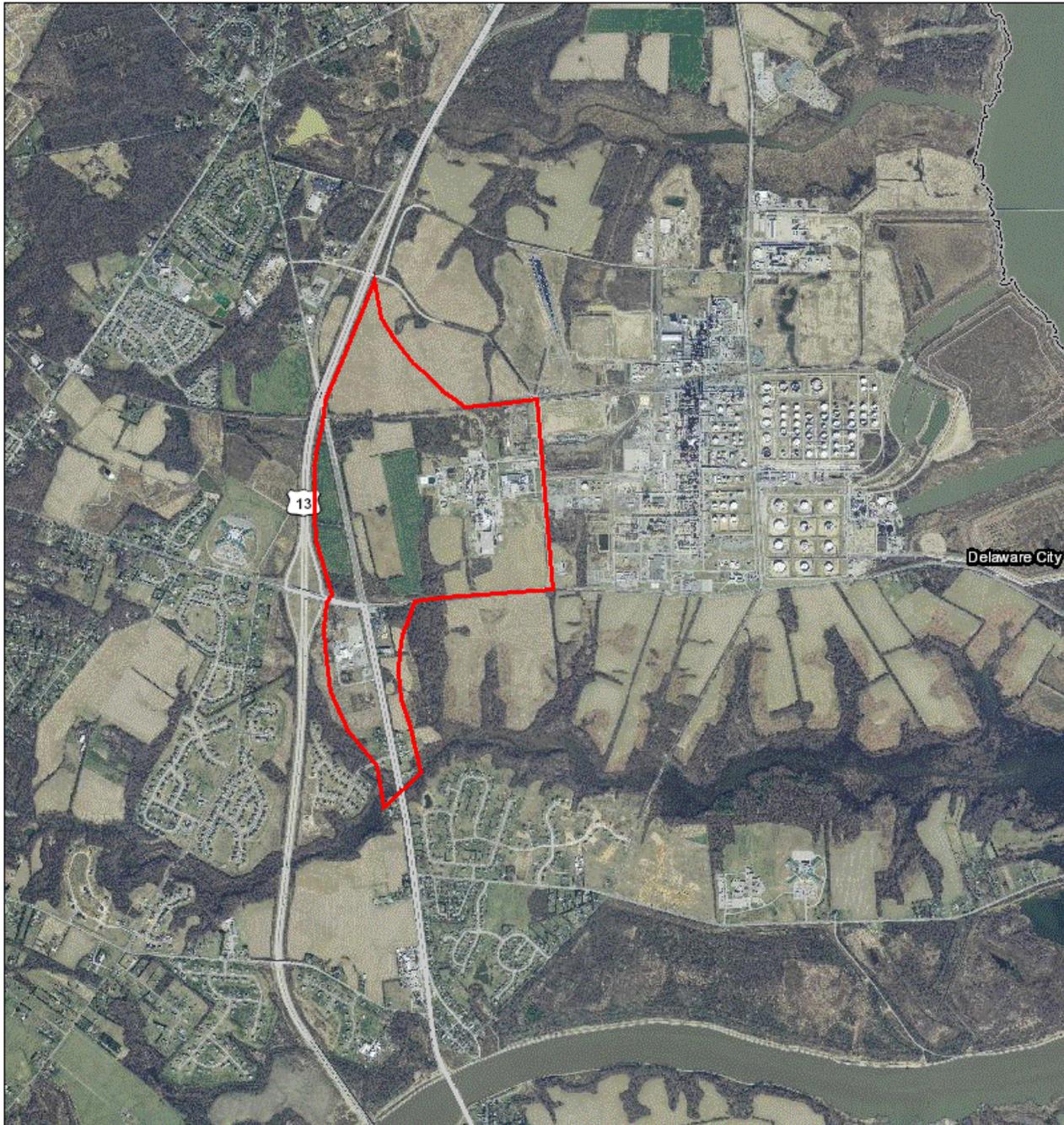

DNREC
 Richardson & Robbins
 Building
 89 Kings Highway
 Dover DE 19901

**FORMOSA
 (DELAWARE CITY PVC)
 COASTAL ZONE BOUNDARY**



SITE FACT SHEET for Delaware City PVC Plant (DE-0007)

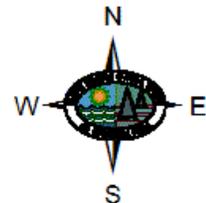
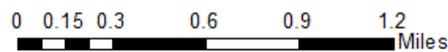
1999 Site Name: Formosa Plastics



DE-0007 DE CITY PVC

Site Map

1 inch = 2,667 feet



WHS-SIRS
391 LUKENS DRIVE
NEW CASTLE, DE 19720
302-395-2600

Solid and Hazardous Waste Management Section



Department of Natural Resources and Environmental Control (DNREC) • Tank Management Section (TMS)

SITE FACT SHEET **1999 Site Name: General Chemical** **General Chemical (DED154576698)**

PROGRAM/REGULATION

This site is regulated by the Environmental Protection Agency (EPA), through the Resource Conservation and Recovery Act (RCRA). Corrective Action activities are being conducted under the direction of the EPA Region 3 with assistance from the Hazardous Waste Management Program in accordance with Title 7 Del.C. Ch 63.

SITE DESCRIPTION

This site is identified in the New Castle County tax maps as tax parcel 06-060.00.016 and is zoned "Heavy Industrial." The site is approximately 100 acres. The entire site is within the Coastal Zone; however, no part of the site is within a New Castle County Water Resource Protection Area (WRPA). The site contained paved lots, old buildings and chemical processing equipment.

SITE LOCATION

The site consists of approximately 100 acres, divided by Route 13 resulting in a "north" parcel and "south" parcel. The property is located at 6300 Philadelphia Pike, in Claymont. Two-thirds of the "north" side is located in Pennsylvania. All of the "south" parcel is in Delaware. Sunoco is to the east, Allied Chemical to the north, Oceanport to the west, and the Delaware River to the south.

OWNER/CURRENT STATUS

The current owner, Chemtrade Solutions LLC, acquired General Chemical Corporation (GCC) on January 23, 2014. Most former structures have been demolished as portions of the south parcel are being prepared for redevelopment to incorporate river and rail access. Drawbridge, a development company, recently purchased a portion of the site.

Last updated: 08/09/18

CONTACT

Solid and Hazardous Waste Management Section - (302) 739-9403

SITE OPERATION HISTORY

The former General Chemical facility, also known as the Delaware Valley Works (DVW), was a chemical manufacturing plant. A variety of inorganic chemicals and pesticides were manufactured at the facility during different periods since it began operation in the very late 1890s. General Chemical acquired the facility from Allied Signal in 1986.

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

In September 2000, EPA issued an Administrative Order to General Chemical pursuant to Section 3008(h) of RCRA requiring a facility-wide investigation and clean up. Construction of an impermeable cap on a 22-acre area on the "south" parcel has started and is to take 6 months to complete. Land use restrictions have been formalized by the execution of an environmental covenant. Elevated levels of arsenic, lead and DDT are in the river sediments. Preliminary remediation goals have been established for COPC. Sampling will continue until remediation goals are achieved. Groundwater and the stormwater sewer system from the south parcel are also included in the investigation. Lastly, the EPA is currently working with the facility to investigate the north parcel. Data received will be used to evaluate and characterize the nature and extent of potential contamination.

CONTAMINANTS OF POTENTIAL CONCERN (COPC)

Metals (lead), arsenic, volatile organic compounds and pesticides (including DDT), are the main contaminants of concern found in soils, sediments and groundwater in the Delaware River and around the facility.

CLEANUP STAGE

Plans for remediation and redevelopment of a portion of the property are nearing final form, with plans for continued remediation and expected redevelopment for the remainder of the site. Plans for capping sediments in the River are being developed. Of Note: The General Chemical Company site is considered one of the 14 sites that will be eligible for conversion back to heavy industrial use through the Coastal Zone Conversion Permit Act. The Coastal Zone Act site boundary is consistent with the tax parcel boundary of the facility.

Solid and Hazardous Waste Management Section



Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

SITE FACT SHEET **1999 Site Name: General Chemical** **General Chemical (DED154576698)**

SITE IMAGES WITH COASTAL ZONE BOUNDARY



SITE MAPS



Site Investigation & Restoration



Department of Natural Resources and Environmental Control (DNREC) • Site Investigation and Restoration Section (SIRS)

SITE FACT SHEET **1999 Site Name:** **Kaneka Corporation of Delaware (DE-1292)** **Kaneka Delaware**

SITE DESCRIPTION

The Site has been an industrial site since the mid 1960s and contained office buildings, chemical storage and process areas, a wastewater treatment plant, roads, railroad tracks, and parking lots. The Site is currently an equipment rental/supply operation and is used for commercial activities.

This Site is considered one of the 14 sites that will be eligible for conversion back to heavy industrial use through the Coastal Zone Conversion Permit Act.

SITE LOCATION

The site is located at 1685 River Road, Delaware City, Delaware and is described on the tax maps of New Castle County as tax parcel number: 12-003.00-005; 12-003.00-008; 12-003.00-009; and 12-003.00-008; 12-003.00-009; and 12-003.00-015. The site encompasses 24.26 acres and is bounded generally by the Delaware River to the east, Route 9 to the west, the former Occidental Chemical Corporation to the north and Delaware City to the south.

CURRENT STATUS

Site Hazard Ranking was conducted on July 20, 2011. The site is in Operations and Maintenance phase. As of 2011 the site is owned by Tri-Supply. Based upon the approved 2004 O+M plan Kaneka of America Corporation has the responsibility to perform groundwater monitoring per the O+M plan. EcReCon (Delaware City Industries) has the remaining O+M responsibility for all other outstanding issues. This includes the north ditch liner repair. Ongoing corrective measures for multiple AOCs are under the direction of DNREC-SHWMS.

Last updated 9/9/2018 by Patrick Roettcher

CONTACT

Site Investigation and Restoration Section at (302)395-2600

SITE OPERATION HISTORY

The plant has operated as a plastics manufacturer since 1966. The plant was historically operated by several corporations including:

Diamond Alkali (1966-1976); Diamond Shamrock (1976-1980); Delaware City Plastics (1980 to 1982); Ethyl Corporation (1982-1983); Georgia Pacific (1983-1984); Georgia Pacific Chemicals (1984-1985); Georgia Gulf (1985-1996); Kaneka (1996-2003).

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

After the site owner entered the Voluntary Cleanup Program (VCP), a 2003 investigation showed that the majority of the 51 sample locations showed there was very minimal contamination. The 2004 Final Plan required 1) the removal of 2' of soils in the phalate area and replace with a fabric liner and 2' of clean fill; and 2) Soil excavation in the center of the plant area, where the PCE was found; and 3) maintain the existing asphalt, concrete and building foundations as impermeable covers; and 4) an environmental covenant maintaining the site as industrial, prohibit land disturbance and well installation without DNREC approval; and 5) placement of a groundwater management zone on the site; and 6) a DNREC approved Operation and Maintenance Plan (O&M Plan). The VCP requires the responsible party to fund the investigation, remedial action and, if necessary, monitoring under the O&M Plan.

1999 Site Name: Kaneka Delaware

CONTAMINANTS OF POTENTIAL CONCERN (COPC)

The contaminants of concern in soils include perchloroethylene, (PCE), phalates and polyaromatic hydrocarbons (PAHs). The results showed two areas of concern (Soils with PCE in the center of the site and phalate area near the west fence line of the property). These areas were addressed by removal of soil as part of an Interim Action. The groundwater is impacted with PCE and metals.

CLEANUP STAGE

Currently in Operation and Maintenance (O&M). The site is within the Delaware City Industrial Area Groundwater Management Zone (GMZ) which limits the extraction and potable use of groundwater in the area.

1999 Site Name: Kaneka Delaware
Coastal Zone Boundary



KANEKA
COASTAL ZONE BOUNDARY

DNREC
Richardson & Robbins
Building
89 Kings Highway
Dover DE 19901

2017 GOOGLE AERIAL

Tank Management Section



Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

SITE FACT SHEET **1999 Site Name: Ocean Port Industries** **Oceanport (3-002433), (7-000201)**

PROGRAM/REGULATION

This site was regulated by the Aboveground and Underground Storage Tank Programs. The regulations are enacted in accordance with Title 7 Del.C. Ch. 60, *Environmental Control*, Title 7 Del.C. Ch. 74A, *The Jeffrey Davis Aboveground Storage Tank Act*, and Title 7 Del.C.Ch. 74 *Underground Storage Tank Act* respectively.

SITE DESCRIPTION

This site is identified in the New Castle County tax maps as tax parcel 06-060.00.015 and is zoned "Heavy Industrial." The site incorporates 101.04 acres. The entire site is within the Coastal Zone; however, no part of the site is within a New Castle County Water Resource Protection Area (WRPA).

SITE LOCATION

It is located at 6200 Philadelphia Pike in Claymont, Delaware. It is bounded by the Delaware River to the south, General Chemical to the east, Philadelphia Pike to the north, and City Steel to the east. This site has been used as an industrial site prior to 1937. Evergreen Property Holdings, sold to Oceanport Industries, Inc. in April, 1996.

CURRENT STATUS

The site currently operates as Oceanport, LLC. No Aboveground or Underground storage tanks are present on the site, but remains in the Above Ground Storage Tank Corrective Action Program. The site is in active use as a bulk salt storage facility. Previous tanks were removed from the site between 2007-2008.

Last updated: 7-26-18 -Lori Spagnolo

CONTACT

Tanks Management Section—302-395-2500

SITE OPERATION HISTORY

This site was the location of the former Texaco bulk storage facility.

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

Benzene, dissolved lead and LNAPL originally detected at site. LNAPL recovery activities through 2015. Data collected suggests that anaerobic biodegradation is occurring at a slow rate. Minimal ecological risk posed to Naaman's Creek and no human health risks posed via that exposure pathway.

CONTAMINANTS OF POTENTIAL CONCERN (COPC)

Benzene in the groundwater remains the primary contaminant of concern.

CLEANUP STAGE

The site will continue to be used as a bulk salt storage facility while monitoring of natural attenuation occurs on the site.

Tank Management Section



Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

SITE FACT SHEET

1999 Site Name: Ocean Port Industries

Oceanport (3-002433)

SITE IMAGES

NO SITE IMAGES CURRENTLY AVAILABLE

SITE MAPS



   **OCEAN PORT INDUSTRIES**
COASTAL ZONE BOUNDARY

2017 GOOGLE AERIAL

Solid and Hazardous Waste Management Section



Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

1999 Site Name: Oxy Chemicals

SITE FACT SHEET

Occidental Chemical Corporation (DED000800284)

PROGRAM/REGULATION

This is an EPA-led site, through the Resource Conservation and Recovery Act (RCRA) Corrective Action Program. Activities are being lead by the EPA with assistance by the Department's Hazardous Waste Management Program in accordance with Title 7 Del.C. Ch 63.

SITE DESCRIPTION

This site is identified in the New Castle County tax maps as tax parcel 12-030.00.004 and is zoned "Heavy Industrial." The site incorporates 214.27 acres. The entire site is within the Coastal Zone; however, no part of the site is within a New Castle County Water Resource Protection Area (WRPA). The site contained buildings, paved lots, and chemical manufacturing equipment.

SITE LOCATION

The site is located on 1649 River Road in New Castle. Red Lion Creek is to the north, with the Delaware River to the east, the refinery to the south and Route 9 borders the west edge of the facility.

OWNER/CURRENT STATUS

Occidental Chemical Corporation (Oxy Chem) is the current owner of the site. Oxy Chem is in the process of implementing the final remedies for the facility under the RCRA Corrective Action Corrective Measures Implementation (CMI) workplan. These final remedies will be implemented in phases during the next several years. The site is generally vacant with few buildings and ground-water treatment system structures..

Last updated: 8/13/2018

CONTACT

Solid and Hazardous Waste Management Section - (302) 739-9403

SITE OPERATION HISTORY

The site was built in 1964 by Diamond Alkali Company to manufacture chlorine, hydrogen, sodium hydrozide and potassium hydrocide, and it operated as a chlor-alkali plant from 1964 through 2007. The site was purchased by Oxy Chem in 1986, and they operated the facility through 2007. Chlorine production stopped in November 2005, and production of anhydrous potassium hydroxide was discontinued in 2007. Decommissioning and demolition of most plant structures was completed in 2007/8.

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

The soil remedy implementation began in September 2014, and was completed in April 2015. Work included excavation of impacted soils and a consolidation of soils and capping. Groundwater field pilot studies are in progress and will determine final design criteria for the in-situ remedies, including bioremediation and chemical reduction. A reactive cap will be installed in the east and west tributaries.

CONTAMINANTS OF POTENTIAL CONCERN (COPC)

Chlorinated VOCs including chlorobenzene, mercury, and manganese.

CLEANUP STAGE

Investigation is complete. Active remediation and monitoring being implemented on portions of the site. Of Note: The Occidental Chemical Corporation site is considered one of the 14 sites that will be eligible for conversion back to heavy industrial use through the Coastal Zone Conversion Permit Act. The Coastal Zone Act site boundary incorporates the same area as the tax parcel boundary of the facility.

Solid and Hazardous Waste Management Section



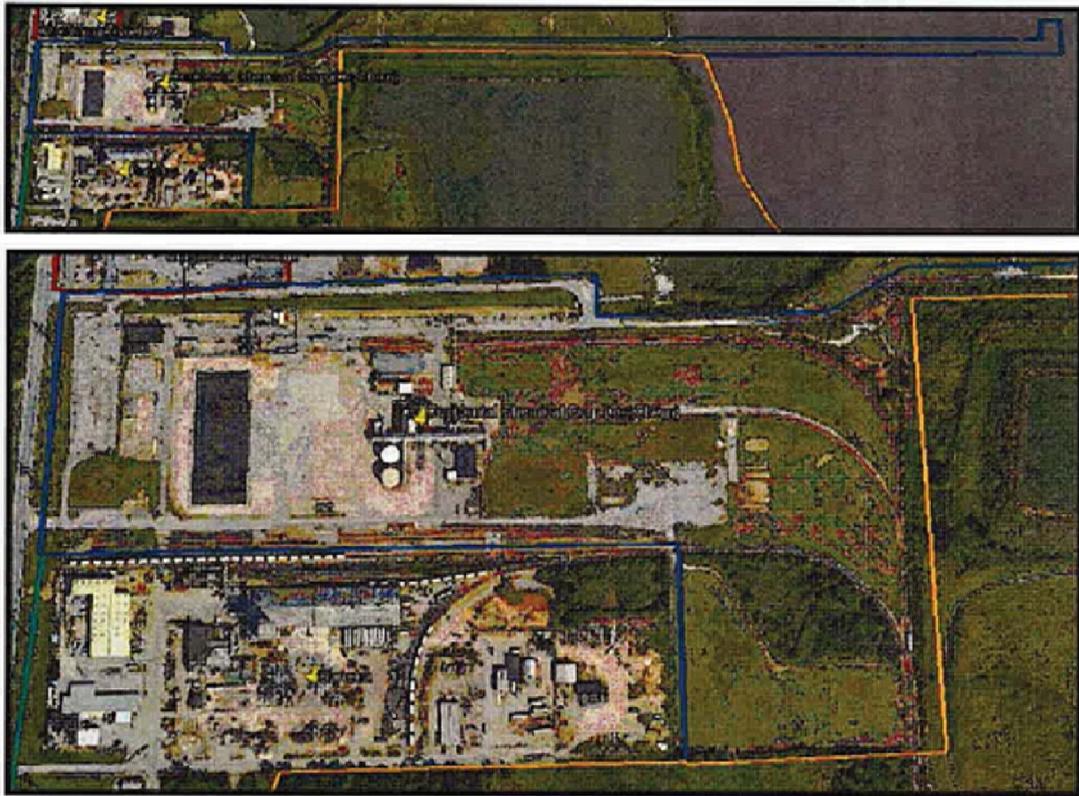
Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

1999 Site Name: Oxy Chemicals

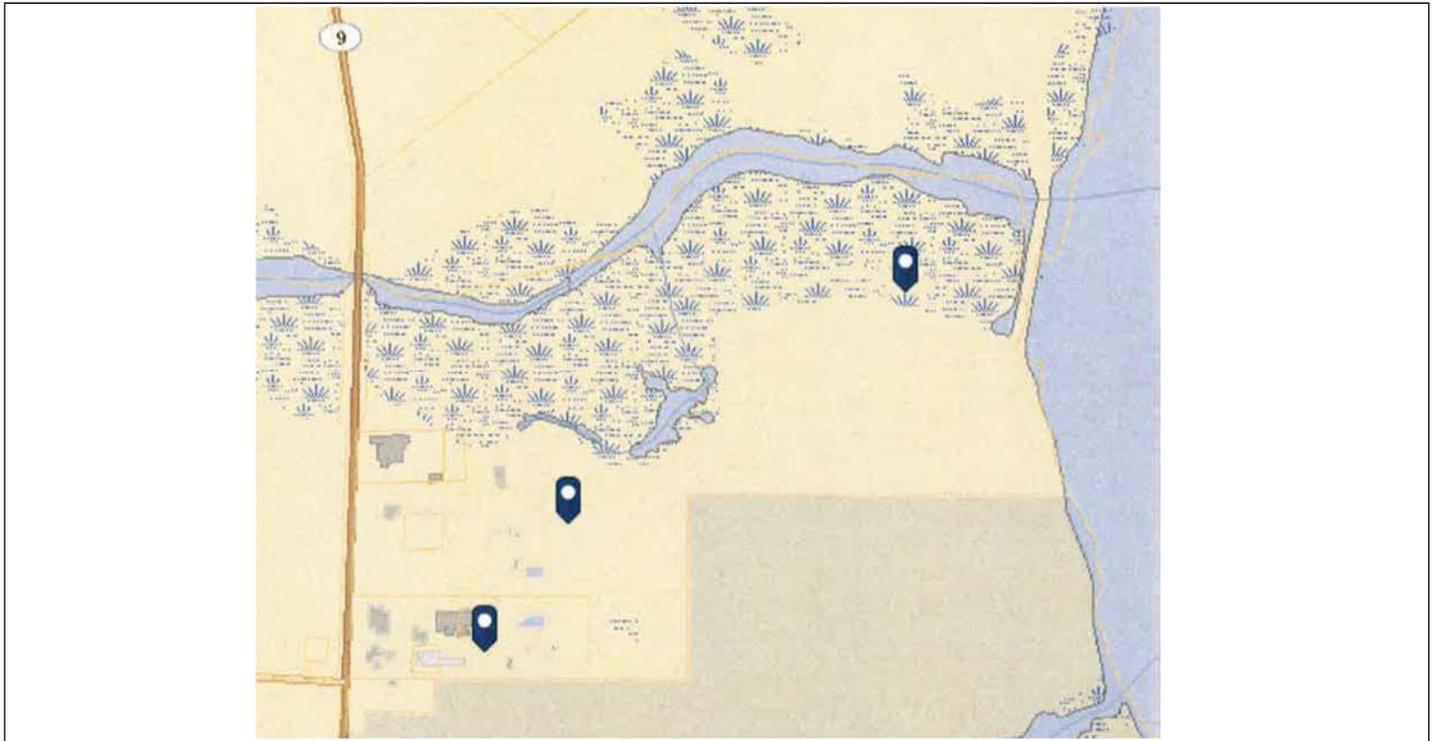
SITE FACT SHEET

OCCIDENTIAL CHEMICAL COMPANY (DED003913266)

SITE IMAGE WITH COASTAL ZONE BOUNDARY



SITE MAPS





SITE FACT SHEET for the Port of Wilmington (DE-1630)

SITE DETAILS

Address:	1 Hausel Road, Wilmington, DE 19801	County:	New Castle
Tax Parcel(s):	26-064.00-001, 26-064.00-002, 26-064.00-003, 26-064.00-004, 26-064.00-005	Site Acreage:	284.14
AKA:	No AKAs present	Watershed:	Christina River
Site Category:	Voluntary Cleanup Program	Cleanup Phase:	Facility Evaluation

1999 Site Name: Port of Wilmington

SITE DESCRIPTION

The Site is a port and marine terminal used primarily for the import and export of cargo. Currently, the Site is largely developed with various buildings, sheds, parking areas, driving lanes, and docks. Existing infrastructure includes paved access roads, paved parking lots, and multiple buildings. The Christina River is located along the northern boundary and the Delaware River flows south along the eastern boundary.

*** Note: A portion of the Port of Wilmington Site is considered one of the 14 sites that will be eligible for conversion back to heavy industrial use through the Coastal Zone Conversion Permit Act.**

CURRENT STATUS

A Voluntary Cleanup Program Agreement was signed between DNREC and the Diamond State Port Corporation in September 2017. In the Agreement, the Diamond State Port Corporation agreed to conduct investigation, and any required remedial actions with DNREC oversight and in accordance with the Regulations Governing Hazardous Substance Cleanup and all other applicable policies, procedures, and guidance documents.

SITE OPERATION HISTORY

- The Site is proposed to be investigated and addressed, in a phased approach, as eight (8) Assessment Areas (AA):
- AA-1 is comprised of approximately 66 acres and is located in the northern portion of the Port of Wilmington Site. The Bestwall Gypsum Company, identified as the Lafarge Gypsum plant, operated on the southern portion of AA-1 between 1954 and 1968, until the building were demolished sometime between 2002 and 2006. Currently, AA-1 is operated as a storage area with cold and dry storage warehouses and an outside storage container terminal.
 - AA-2 consists of approximately 33 acres and is located on the northeastern corner of the Site. Between 1968 and 1992, miscellaneous materials (e.g., soils and building demolition debris) were placed as fill within AA-2. The current cold storage warehouse, identified as the Bulk Juice Terminal, was constructed between 1968 and 1992. The Site currently operates as a storage area for containers and other miscellaneous items.
 - AA-3 is comprised of approximately 38 acres and is located on the eastern portion of the Site. Based on aerial photographs and historical topographic maps, AA-3 was shoreline prior to 1967, until the area was first used for dredge material storage in 1989. Bulk fill and crushed stone were imported to overlay the dredging material to between 2001 and 2002 to construct the "First Point of Rest" vehicle staging area. Since development, AA-3 has operated as a vehicle staging area.
 - AA-4 consists of approximately 14 acres on the southwestern portion of the Site. Based on Duffield Associates' January 2003 Environmental Assessment Report of the Proposed Truck Fueling Terminal, the southern portion of AA-4 was used to store fluorspar ore. Currently, the southern portion of AA-4 is used to store miscellaneous equipment. Based on Certified Sanborn Maps, a building located on the northern portion of AA-4 was historically operated as a storage facility for fertilizer. Additionally, the maps indicate that sometime between 1989 and 1992 the northern portion of AA-4 was utilized for coal storage. Between 1997 and 2002, the former "Agway Building", used by the Port of Wilmington for fertilizer storage, was demolished and the current administration building was constructed.
 - AA-5, located in the western-central portion of the Site, is comprised of approximately 20 acres. Historically, AA-5 operated as the North American Smelting Company (NASCO) from the 1930's until 1984. NASCO smelted substances such as scrap aluminum, brass and lead. From 1984 to 1996, the building was leased to



SITE FACT SHEET for the Port of Wilmington (DE-1630)

the City of Wilmington by Intercontinental Chemical Services for bulk storage and packing of sodium nitrate and urea. Additionally, portions of AA-5 reportedly were filled in with rubble. Based on historical aerial photographs, the building was demolished and a new dry storage warehouse (Warehouse G), was constructed between 1997 and 2002. Warehouse G is located on the southern portion of AA-5 while an administration building, identified as the Tug Murray Building, is located on the northwestern corner of AA-5. The eastern portion of AA-5 is currently utilized as an auto storage area.

1999 Site Name: Port of Wilmington

6. AA-6 consists of approximately 30 acres located in the eastern-central portion of the Site. A 1951 Sanborn map depicts the western portion of AA-6 as operated by Ozark-Mahoning Company for use as a Flour-Spar drying plant and storage facility. Aerial photographs suggest that the building was demolished between 1968 and 1992 and that since 1992, the eastern and western portions of AA-6 have operated as a vehicle storage area. Aerial photographs also indicate that a building was constructed between 1968 and 1992 on the northwestern corner of AA-6. According to a Port of Wilmington Facilities Map, since its construction, the building has operated as a maintenance shop.
7. AA-7 consists of approximately 53 acres on the southern portion of the Site. According to Duffield Associates' Phase I Environmental Site Assessment for the Volkswagen Lease Areas, AA-7 has historically operated as vehicle storage and vehicle maintenance. Volkswagen has apparently occupied the area since 1976.
8. AA-8 consists of approximately 54 acres on the northwestern portion of the Site. Aerial photographs and Sanborn maps indicate the northwestern portion of the site was historically operated by the Eastern Terminal Lumber Company, for apparent storage of lumber piles. Currently, AA-8 is operated as a storage area with cold and dry storage warehouses.

SITE ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

- AA-1 : Duffield Associates' March 1990 Soil Analysis Report Port Engineer Building, Woodward-Clyde's August 1994 "Pyrites" Disposition Letter Report, ARAI Constructors' October 1994 UST #7 Removal at the Port of Wilmington Report, Woodward-Clyde's October 1996 Geotechnical and Hazardous Material Investigation Warehouse "A" and Transit Shed, Duffield Associates' October 1998 Environmental Analytical Testing Result Summary, Duffield Associates' January 1999 Environmental Analytical Testing Result Summary, DNREC's September 1999 Dole Expansion Project Letter, Brandenburg Industrial Service Company's June 2004 Health and Safety Plan for Lafarge Gypsum Plant, Duffield Associates' November 2015 Environmental Testing of Parking Lot Expansion/ Gypsum Materials Storage Area.
- AA-2: DNREC's Preliminary Assessment of City of Wilmington Marine Terminal.
- AA-3: Duffield Associates' January 2001 Environmental Site Assessment.
- AA-4: Duffield Associates' January 1998 Geotechnical Evaluation and Phase I Modified Environmental Assessment, JCA Associates' September 1998 Soil and Groundwater Sampling Report for Certificate of Completion of Remedy, Duffield Associates' January 2003 Environmental Site Assessment Report.
- AA-5: DNREC's March 1990 Preliminary Assessment of North American Smelting Company Site, DNREC's January 1991 Site Inspection of North American Smelting Company Site, WIK Associates' October 1998 Interim Remedial Action Report.
- AA-6: Based on a file review, no apparent previous environmental investigations have been performed within this proposed assessment area.
- AA-7: Duffield Associates' May 2008 Phase I Environmental Site Assessment, Duffield Associates' August 2008 Phase II Environmental Site Assessment, Dames & Moore September 1991 Geotechnical Investigation and Soil Chemical Testing, Duffield Associates' September 1992 Petroleum Soil Removal.
- AA-8: ARAI Constructors' October 1994 UST #7, Woodward-Clyde's October 1996 Geotechnical and Hazardous Material Investigation Warehouse "A" and Transit Shed, Duffield Associates' November 2012 Soil Assessment.



**Department of Natural Resources and Environmental Control (DNREC)
Site Investigation and Restoration Section (SIRS)**



SITE FACT SHEET for the Port of Wilmington (DE-1630)

The Site is located within the Groundwater Management Zone (GMZ) established as part of the Halby Chemical Superfund Site (DE-0067). The GMZ includes restrictions on the withdrawal and use of groundwater flowing beneath the Port of Wilmington Site.

1999 Site Name: Port of Wilmington

SITE CONTAMINANTS OF CONCERN (COCs)

General COCs (soil):

AA-1: aluminum, lead, total petroleum hydrocarbons, benzene, toluene, ethylbenzene, and xylene
AA-2: polycyclic aromatic hydrocarbons, polychlorinated biphenyls, metals
AA-3: COCs undetermined
AA-4: arsenic, ammonia, and polycyclic aromatic hydrocarbons
AA-5: polycyclic aromatic hydrocarbons, polychlorinated biphenyls, metals
AA-6: COCs undetermined
AA-7: benzo(a)pyrene
AA-8: arsenic, lead, total petroleum hydrocarbons, benzene, toluene, ethylbenzene, and xylene

General COCs (groundwater):

aluminum, barium, chromium, cobalt, copper, iron, lead, manganese, nickel, vanadium

General COCs (soil gas):

To be determined

General COCs (surface water):

To be determined

General COCs (sediment):

To be determined



SITE FACT SHEET for the Port of Wilmington (DE-1630)



2017 GOOGLE AERIAL



1999 Site Name: Port of Wilmington

PORT OF WILMINGTON
COASTAL ZONE BOUNDARY



SITE FACT SHEET for the Port of Wilmington (DE-1630)

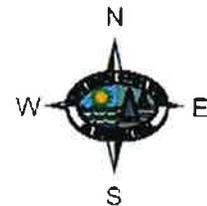
1999 Site Name: Port of Wilmington



DE-1630 PORT OF WILMINGTON

Site Map

1 inch = 1,333 feet



WHS-SIRS
391 LUKENS DRIVE
NEW CASTLE, DE 19720
302-395-2600



SITE FACT SHEET for Standard Chlorine/Metachem (Remedial) (DE-0053)

SITE DETAILS

Address:	745 Governor Lea Road, Delaware City, DE 19706 US	County:	New Castle
Tax Parcel(s):	1200300012, 1200300002, 1200300014, 1200300001, 1200300017, 1004900073, 1200300011, 1200200025, 1200300013, 1200300010	Site Acreage:	65
AKA:	Standard Chlorine Co. / Metachem	Watershed:	Red Lion Creek
Site Category:	National Priorities List (NPL- Superfund)	1999 Site Name:	Standard Chlorine
		Cleanup Phase:	Remedial Action / Operation and Maintenance

SITE DESCRIPTION

The site is located at 745 Governor Lea Road in New Castle County north of Delaware City. The site is comprised of several tax parcels that are part of the overall site. This site is within the larger Delaware City industrial area which has been developed as industrial since the 1950s. The Standard Chlorine of Delaware /Metachem (SCD) plant site covers 46 acres and is located in New Castle County, Delaware. The SCD facility was built in 1965 on farmland that was previously owned by the Diamond Alkali Company. The Diamond Alkali Company had previously purchased the land from the Tidewater Refinery Company. Chlorinated benzene compounds were manufactured onsite from 1966 until the facility's closure in May 2002.

CURRENT STATUS

DE-0053 Standard Chlorine of Delaware (SCD) / Metachem is a USEPA Federal Superfund site. The site has a Record of Decision from 1995 governing the actions at the site that USEPA and DNREC will take to address site contaminants. Operable Units exist for groundwater, wetlands, and soil at the former plant area. DNREC-SIRS has designated the Standard Chlorine / Metachem-CA, DE-032, Administratively Closed on October 31, 2013 and the DE-1279 Standard Chlorine / Metachem (State) Administratively Closed on December 30, 2014 as they are currently being addressed by the Standard Chlorine /Metachem (Remedial) DE-0053 site.

Fact Sheets are maintained by the USEPA to keep the public informed of the most recent updates to progress at the site. These can be found at this web address:
<http://www.epa.gov/reg3hwmd/npl/DED041212473.htm>

The site recently completed remediation of the Operable Unit 3 (Former Plant Area). This is a multilayer cap that will prevent contact with the contaminated soil at the site along with capturing and treating any soil gas. DNREC has expended \$2.4 million towards the remedial actions at the site as part of the cost-share at this Superfund-lead site. USEPA and DNREC are exploring options for creating a solar photovoltaic system to power the groundwater and soil gas treatment system at the site.

Of Note: The Standard Chlorine of Delaware / Metachem site is considered one of the 14 sites that will be eligible for conversion back to heavy industrial use through the Coastal Zone Conversion Permit Act. The Coastal Zone Act site boundary is limited to approximately the boundary of the Operable Unit 3 area.

SITE OPERATION HISTORY

Chlorine (piped in from the former Occidental Chemical facility to the east) and benzene (obtained primarily from the refinery facility located just to the south) were the main raw materials for chlorinated benzene production processes. The facility underwent an expansion in the early 1970s to begin



SITE FACT SHEET for Standard Chlorine/Metachem (Remedial) (DE-0053)

1999 Site Name: Standard Chlorine

production of chlorinated nitrobenzene and to increase production of chlorobenzene, dichlorobenzene, and trichlorobenzene. Production of chlorinated nitrobenzene ended in the late 1970s, and the related capacity was switched to the production of chlorobenzene. The facility was also expanded in the late 1970s. Following that expansion, the SCD facility produced chlorobenzene, paradichlorobenzene, various isomers of trichlorobenzene, and chlorobenzene-based insulating fluids. The manufacturing process involved the chlorination and distillation of benzene and nitrobenzene to produce monochlorobenzene, paradichlorobenzene, orthodichlorobenzene, 1,2,4-trichlorobenzene, 1,2,4,5-tetrachlorobenzene, metachloronitrobenzene, and hydrochloric acid. On September 16, 1981, a spill of approximately 5000 gallons of 99.9% pure monochlorobenzene (MCB) occurred from a train tank car. The spill runoff traveled along drainage ways leading to Red Lion Creek. Some MCB discharged into Red Lion Creek and stream samples indicate that most of the MCB was tied up in the bottom samples. Test wells determined that the Columbia Aquifer had been contaminated with a plume of contaminated groundwater migrating off-site to the north toward Red Lion Creek culminating in the need to address cleanup of the Columbia Aquifer. Groundwater from deeper aquifers in the Potomac Formation is a source of public and industrial water supply within about a mile of the site. SCD retained a consultant and proceeded under the direction of DNREC to study the site and recommend remedial alternatives in 1983. In September 1985, the site was proposed by EPA for the National Priorities List (NPL). After extensive study, a remedial project consisting of recovery and treatment of contaminated groundwater was selected. Implementation of the Remedial Action began in June 1986 by SCD. In the interim, on January 5, 1986, several on-site storage tanks ruptured spilling 562,000 gallons of paradichlorobenzene (PCBs) and trichlorobenzene onto the site and adjacent wetlands. Initial response measures included dredging of contaminated sediments and removal of contaminated soils to an on-site sediment basin and holding area. In July 1987, Standard Chlorine was finalized on the NPL. Negotiations between DNREC and Standard Chlorine resulted in a signing of a Consent Order in January 1988, in which Standard Chlorine agreed to perform a phased RI/FS. They also agreed to the submission of an emergency cleanup document to address the 1986 spill event. Due to the magnitude of the contamination identified in the emergency cleanup documents, however, the Consent Order was amended in November 1988 to allow for a single RI/FS without a phased approach. This allowed for the two major spill events to be addressed simultaneously.

SITE ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

Following the series of major releases of chlorobenzene compounds in the 1970s and 1980s, totaling over 574,000 gallons, the EPA listed the Site on the National Priorities List (NPL) in 1987 creating the Standard Chlorine of Delaware Superfund site. A Consent Order (between DNREC and SCD) requiring responsible parties to conduct a Remedial Investigation/Feasibility Study (RI/FS) at the SCD Site was signed on January 12, 1988 and amended on November 14, 1988. The Record of Decision (ROD) for the site was completed on March 9, 1995, and an Administrative Order for Remedial Design and Remedial Action was signed on May 30, 1996. The interim action for groundwater addressed containment of groundwater to minimize and control the spread of contamination in the subsurface. Between 1987 and 2012, DNREC has performed the following tasks in providing management assistance during the Remedial Action phase in partnership with EPA:

- Participate in public meetings and briefings held for local officials, legislators and, for the local communities;
- Participate in pre-construction and pre-final construction conferences and implementation activities;
- Be present at trial runs/shakedowns of major remedial action specific equipment;
- Inventory and over-pack chemicals in the on-site laboratory for disposal;
- Issue a contract to evaluate all small containers on-site and stage them in containment areas;
- Provide technical support to aide in facilitating correspondence with the other branches and divisions of DNREC;
- Provide technical assistance for evaluation of reports and proposals from contractors
- Provide funding for building specific demolition prior to remedial wall implementation.



SITE FACT SHEET for Standard Chlorine/Metachem (Remedial) (DE-0053) **1999 Site Name: Standard Chlorine**

- Participate with the EPA and responsible parties in developing institutional controls which may include groundwater management, land use restrictions and environmental covenants.
- Establish and enforce institutional controls to include deed restrictions and the Delaware City Industrial Area Ground Water Management Zone ("GMZ") (2008)
- Evaluate the technical practicability of remediation ground water to health-based levels.
- Review O&M manuals and plans developed by the remedial design contractor;
- Make regular progress reports to the Governor of Delaware through the Secretary of the Department of Natural Resources and Environmental Control.
- Review pre-final and final inspection reports;
- Review progress reports.

The remedial action for the Operable Unit 1 (Interim Groundwater Remedy) was completed in 2007 and has been operating since that time. OU-1 is a sub-surface slurry wall to captures site groundwater combined with a pump and treat system to remove contaminants from the groundwater. Remedy evaluation for the Operable Unit 2 (Wetlands) has been ongoing for several years including adding watershed-wide data to the decision making process along with testing several bio-augmentation remedies to be potentially combined with the selected remedy of In-situ thermal desorption. The Operable Unit 3 (former plant area) was completed in early 2017. This is a multi-layer capping that eliminates the exposure pathways to contaminated soil and collects soil gas for treatment. Operable Unit 4 is the final groundwater remedy that will address site contaminants of concern in groundwater outside of the slurry wall along with adopting the OU-1 remedy as part of the final remedy.

SITE CONTAMINANTS OF CONCERN (COCs)

General COCs (soil):	benzene, a dozen different types of chlorobenzene compounds, and toluene, polychlorinated biphenyls ("PCBs"), metachloronitrobenzene, and dioxins
General COCs (groundwater):	benzene, a dozen different types of chlorobenzene compounds, and toluene, polychlorinated biphenyls ("PCBs"), metachloronitrobenzene, and dioxins
General COCs (soil gas):	benzene, a dozen different types of chlorobenzene compounds, and toluene, polychlorinated biphenyls ("PCBs"), metachloronitrobenzene, and dioxins
General COCs (surface water):	benzene, a dozen different types of chlorobenzene compounds, and toluene, polychlorinated biphenyls ("PCBs"), metachloronitrobenzene, and dioxins
General COCs (sediment):	benzene, a dozen different types of chlorobenzene compounds, and toluene, polychlorinated biphenyls ("PCBs"), metachloronitrobenzene, and dioxins

OTHER IMAGES



SITE FACT SHEET for Standard Chlorine/Metachem (Remedial) (DE-0053)



1999 Site Name:
Standard Chlorine





SITE FACT SHEET for Standard Chlorine/Metachem (Remedial) (DE-0053) **1999 Site Name: Standard Chlorine**





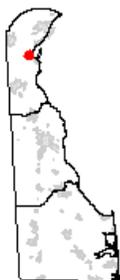

STANDARD CHLORINE OF DELAWARE (METACHEM) COASTAL ZONE BOUNDARY

2017 GOOGLE AERIAL



SITE FACT SHEET for Standard Chlorine/Metachem (Remedial) (DE-0053)

1999 Site Name: Standard Chlorine

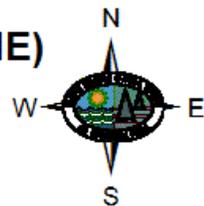


DE-0053 METACHEM (STANDARD CHLORINE)

Site Map

1 inch = 333 feet

0 0.0175 0.035 0.07 0.105 0.14 Miles



WHS-SIRS
391 LUKENS DRIVE
NEW CASTLE, DE 19720
302-395-2600

Solid and Hazardous Waste Management Section



Department of Natural Resources and Environmental Control IDNREC • Tank Management Section (TMS)

SITE FACT SHEET **1999 Site Name: Star Enterprise** **Delaware City Refinery (DED002329738)**

PROGRAM/REGULATION

This is a State-led site, with assistance from the Environmental Protection Agency (EPA) through the Resource Conservation and Recovery Act (RCRA). Corrective Action activities are being lead by the Department's Hazardous Waste Management Program in accordance with Title 7 Del.C. Ch 63. In September, 2003, DNREC issued a Corrective Action Permit to Motiva.

SITE DESCRIPTION

This site is comprised of many tax parcels and is zoned "Heavy Industrial." The site contains a total of 5,050 acres. The entire site is within the Coastal Zone; and some areas are within a New Castle County Water Resource Protection Area (WRPA). The property includes the operating refinery with associated equipment and storage tanks, along with acres of buffering farmland.

SITE LOCATION

The refinery is located outside the municipality of Delaware City. The Delaware River is to the east of the site, with Route 13 to its west, agricultural fields to the south and the Red Lion Creek to the north.

OWNER/CURRENT STATUS

The refinery has had many owners since commencement of operations in 1956. In May, 2004, ownership of the Motiva Refinery passed to Premcor, Inc., and in September, 2005, Valero Energy Corp. acquired Premcor, Inc. In November, 2009, Valero discontinued production at the refinery and idled the facility. PBF Energy completed the purchase of the refinery from Valero in June, 2010, and restarted the refinery in 2011. Motiva retains the environmental liability for the permitted waste units and historic contamination.

Last updated: 8/13/2018

CONTACT

Solid and Hazardous Waste Management Section - (302) 739-9403

SITE OPERATION HISTORY

This site has operated as a refinery since the mid-1950s.

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

Several phases of investigation and corrective actions have been performed. Thirty-five Solid Waste Management Units (SWMUs) were identified and investigated and areas of groundwater contamination were delineated. Currently, five SWMUs are under post-closure care and two others are being remediated through interim measures. Groundwater investigations delineated the areas where groundwater is impacted from releases from the refinery. Site-wide groundwater monitoring is also performed at 140 monitoring wells to identify potential changes to the location and characteristics of the area of impacted groundwater. Light non-aqueous phase liquid hydrocarbon was found in groundwater in five areas. In 1994, free-phase hydrocarbon recovery systems were installed. Groundwater clean-up options will be considered in the Corrective Measures Study.

CONTAMINANTS OF POTENTIAL CONCERN (COPC)

The main site-related contaminants were found in soil, groundwater and sediments, including: benzene, toluene, ethyl benzene, xylenes, other petroleum compounds—Methyl Tertiary Butyl Ether (MTBE) and naphthalene—and some metals. Chlorinated hydrocarbons were also found in groundwater on the site.

CLEANUP STAGE

Currently, human exposure to site contaminants is under control. Further evaluation of groundwater will be performed to determine whether migration of contaminated groundwater is under control. Of Note: The Refinery is considered one of the 14 sites that will be eligible for conversion back to heavy industrial use through the Coastal Zone Conversion Permit Act. The Coastal Zone Act site boundary has a smaller area than the total acreage included in the boundary of the facility.

Solid and Hazardous Waste Management Section



Department of Natural Resources and Environmental Control (DNREC) • Tank Management Section (TMS)

1999 Site Name: Star Enterprise

SITE FACT SHEET

DELAWARE CITY REFINERY (DED002329738)

SITE IMAGE WITH COASTAL ZONE BOUNDARY



SITE MAPS



Solid and Hazardous Waste Management Section



Department of Natural Resources and Environmental Control (DNREC) • Tank Management Section (TMS)

SITE FACT SHEET 1999 Site Name: Sun Oil

Sun Oil

PROGRAM/REGULATION

This is a State-led site, through the Hazardous Substance Clean Up Act (HSCA) Voluntary Cleanup Program. Corrective Action activities are being lead by the Department's Solid and Hazardous Waste Management Program in accordance with Title 7 Del.C. Ch 63.

SITE DESCRIPTION

This site is identified in the New Castle County tax maps as tax parcels 06-061.00.001; 06-061.00-002; 06-061.00-004 and 06-074.00-001 and is zoned "Heavy Industrial." The site incorporates 73.99 acres. The entire site is within the Coastal Zone; however, no part of the site is within a New Castle County Water Resource Protection Area (WRPA). This is a former ethylene complex including buildings, tanks and flares. The facility is bordered by industrial land use and commercial residential properties.

SITE LOCATION

The site is shaped like a triangle and has an address of 6400 Philadelphia Pike, Claymont. Pennsylvania is to the north, General

OWNER/CURRENT STATUS

Sunoco Logistics owns this site along with the majority of the site in Pennsylvania. No active commercial operations.

Last updated: 8/13/2018

CONTACT

Solid and Hazardous Waste Management Section - (302) 739-9403

SITE OPERATION HISTORY

The Marcus Hook Industrial Complex is located on approximately 788 acres along the Delaware River in Claymont DE and Marcus Hook PA. The former petroleum refinery is generally divided into two types of areas: refining/processing activities and crude oil/product storage and has a long history of petroleum transportation, storage, and processing.

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

As part of the Resource Conservation and Recovery Act facility investigation, the former Ethylene Complex has been identified as Area of Interest (AOI) 7. AOI 7 is located in Delaware. Following the shutdown of the Ethylene Complex, the former units of AOI 7 were decommissioned and are in the process of being demolished. Rail lines in AOI 7 continue to be used for the staging of train cars. For the Hazardous Substance Cleanup Act, representatives of Environmental Protection Agency, site owners, and DNREC discussed in December 2013 the responsible parties entering a voluntary cleanup program (VCP) agreement. At this time, the property owners have not entered into a VCP with DNREC and the site is being addressed by Environmental Protection Agency. The former Sunoco tank farm is being addressed under a VCP agreement with Sunoco/Evergreen Resource Group, LLC. There is no state financial liability for this portion of the site. The Final Plan of Remedial Action required annual groundwater sampling to ensure the site remains protected and an environmental covenant restricting future use of the property.

CONTAMINANTS OF POTENTIAL CONCERN (COPC)

The main contaminants that have been identified in soil and groundwater are related to petroleum refining operations such as solvents, polyaromatic hydrocarbons (PAHs), and heavy metals such as lead.

CLEANUP STAGE

Remedial Facility Investigation ongoing. Of Note: The Sun Oil site is considered one of the 14 sites that will be eligible for conversion back to heavy industrial use through the Coastal Zone Conversion Permit Act. The Coastal Zone Act site boundary matches the tax parcel boundary of the facility.

SITE FACT SHEET **1999 Site Name: Sun Oil**

Sun Oil

SITE IMAGE WITH COASTAL ZONE BOUNDARY



SITE MAPS

No other maps currently available

Site Investigation & Restoration



Department of Natural Resources and Environmental Control (DNREC) • Site Investigation and Restoration Section (SIRS)

SITE FACT SHEET

ICI Americas Inc Atlas Point Site (DE-0049)

1999 Site Name: Uniqema

SITE DESCRIPTION

The Site is situated in the northeastern portion of New Castle County, Delaware and is zoned "M-3" heavy commercial. The site is located adjacent to I-295 and the Delaware River. This 177-acre industrial site is the historical location of the Former ICI Americas Atlas Point chemical processing facility. Various parcels have undergone changes in ownership and use.

Street addresses for 177 acres comprising the site are:

Croda Inc.: 315 Cherry Lane, 321 Cherry Lane, 213 Cherry Lane (the "Croda Parcels"), FujiFilm Imaging Colorants, Inc.: 233 Cherry Lane, 235 Cherry Lane, and 0 Cherry Lane (the "FujiFilm Parcels"), and JFS1986, LLC and RDS1986, LLC, as tenants in common 1000 Uniqema Blvd. and 900 Uniqema Blvd (the "JFS/RDS Parcels").

The Site consists of 9 tax parcels:

Croda Inc. (10-015.00-020 [213 Cherry Lane], 10-016.00-002 [315 Cherry Lane], 10-016.00-007 [321 Cherry Lane], and 10-016.00-008 [321 Cherry Lane]); Avecia Inkjet Inc. C/O FujiFilm Imaging Colorants Inc., (10-015.00-003 [233 Cherry Lane], 10-015.00-023 [235 Cherry Lane], and 10-015.00-024 [0 Cherry Lane]); and JFS1986, LLC and RDS1986, LLC, as tenants in common (10-015.00-021 [900 Uniqema] and 10-015.00-022 [1000 Uniqema]).

This Site is considered one of the 14 sites that will be eligible for conversion back to heavy industrial use through the Coastal Zone Conversion Permit Act.

SITE LOCATION

This 177-acre industrial site is the historical location of the Former ICI Americas Atlas Point facility. It is adjacent to the Veterans Memorial Park and visible from I-295. The Collins Park neighborhood is the closest residential area to the Atlas Point Site.

CURRENT STATUS

On July 2, 2018, DNREC approved the remedial action summary for Groundwater (OU-2). This will act as a remedial action work plan for the cleanup of OU-2, pending the adoption of the Amended Proposed Plan of Remedial Action for OU-1 and OU-2. The Amending PPRA for OU-1 and OU-2 will go out for public comment on August 12, 2018.

Last updated 9/9/2018 by Patrick Roettcher

CONTACT

Site Investigation and Restoration Section at (302)395-2600

SITE OPERATION HISTORY

A manufacturing plant existed on what has been designated as the Site since 1936 producing a wide range of chemically-based products. Throughout this period of operation, numerous small spills and incidents occurred which resulted in contamination of soil, sediment and groundwater. There were also a number of locations on the property that were designated waste disposal areas for both solid and liquid wastes associated with former operations. The parcels comprising the Site have undergone several changes in ownership and use through the years. In September 2012, DNREC approved remedial actions for 84 "areas of concern" (AOCs) where a potential release may have occurred to the soil or sediment by historic plant operations or spills. In addition, investigations were conducted at Magazine Ditch and Lukens Marsh. The last of the remedial action (AOC AN) was completed in June 2015. The new groundwater extraction and treatment system was designed and constructed under the 2014 Final Plan of Remedial Action for OU-2. The system became operational in 2016.

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

A Preliminary Assessment (PA) was conducted in December 1983. A Site Inspection (SI) was conducted by the EPA and DNREC in 1983. An Expanded Site Inspection (ESI) was conducted in December 1993 in order to characterize waste source areas and identify contaminants within the groundwater, surface water, surface water sediments and shallow soil. In September 1995, the owners of the Site entered into the Voluntary Cleanup Program which is administered under the Delaware Hazardous Substance Cleanup Act, 7 Del. C. Ch.91. They agreed to conduct a Remedial Investigation (RI) on the Site to determine the nature and extent of hazardous substances and to identify potential receptors and exposure pathways. The Phase I RI Work Plan was approved by DNREC-SIRB in July 1997. A number of capital projects requiring field sampling (per section 13.10 of the Regulations Governing Hazardous Waste Cleanup) have taken place since acceptance of the first draft RI workplan in 8/96. Several Areas of Concern identified in the RI workplan have been investigated, and several underwent, or are undergoing, remediation, and thus have been removed from the scope of the RI. A revised Phase I RI Report was submitted in January 1999. The Phase I RI Baseline Ecological Risk Assessment was submitted to DNREC in November 1998. The Phase I RI Baseline Ecological Risk Assessment objectives were 1) to identify environmentally sensitive areas within the site boundaries and on properties immediately adjacent to the Site, 2) to evaluate the nature of the constituents detected on the Site and to identify constituents of concern (COCs) with regard to potential ecological risks, 3) to identify constituent migration pathways to any environmentally sensitive areas identified, 4) to conduct an ecological effects assessment to establish assessment and measurement endpoints and 5) to conduct an ecological risk characterization to draw conclusions regarding the estimated risk to biological receptors and the need to conduct further investigations. Environmentally sensitive areas within the Site boundaries were identified as Areas of Concern (AOCs) C, AN, BC and BD. Environmentally sensitive areas immediately adjacent to the Site were identified as Magazine Ditch (to the north of the Site) and Lukens Marsh (to the southeast of the Site).

Contaminated sediments in AOC AN were removed in 2014-2015 under a work plan approved by the EPA TSCA program. The groundwater extraction and treatment system was designed and constructed under the 2014 Final Plan of Remedial Action for OU-2. The system became operational in 2016.

1999 Site Name: Uniqema

CONTAMINANTS OF POTENTIAL CONCERN (COPC)

The most significant environmental problem at the Site is the contamination of the groundwater by bis (2-chloroethyl) ether (BCEE) and its risk of off-site migration. Presently, groundwater extracted from the Artesian Water Company Collins Park well is affected by BCEE contamination from the Site. The groundwater extracted from the Collins Park well undergoes treatment prior to use in its drinking water supply system.

Arsenic, cadmium, lead, manganese, mercury, nickel, benzene, phthalate acid esters, 1,2-dichloroethane, tetrachloroethene, bis(2-chloroethyl)ether (BCEE), , ethylbenzene, toluene, TPHs, PCBs,

CLEANUP STAGE

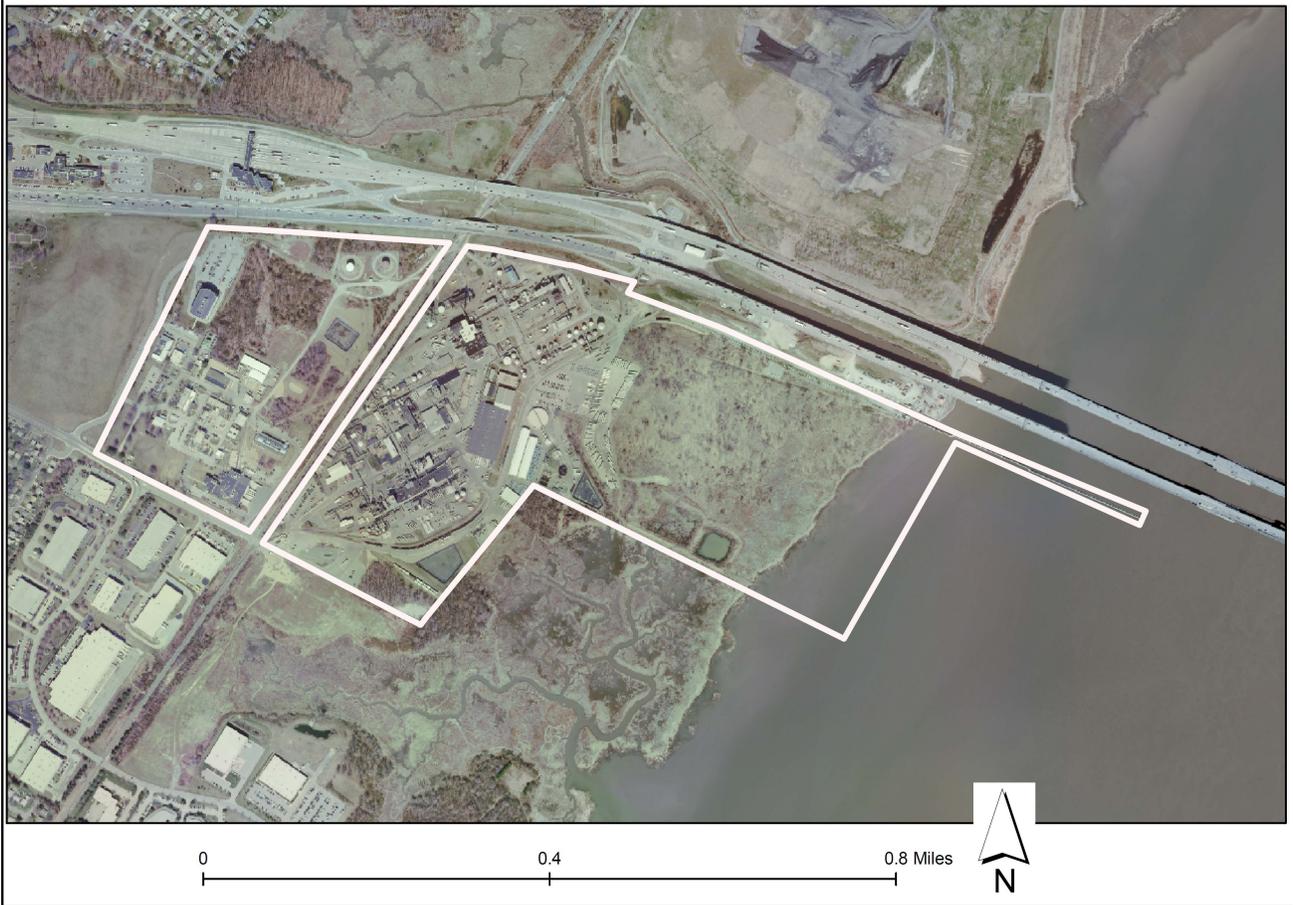
Operable Unit 1 (Soil and Sediment) --Last Remedial Action completed in August 2015

Operable Unit 2 (Groundwater)--Remedial Action, installation of new groundwater system substantially complete. Operation of new system began in early 2016.

Amended Proposed Plan of Remedial Action for OU-1 and OU-2 will be advertised on August 12, 2018.

Coastal Zone Boundary

1999 Site Name: Uniqema



2017 GOOGLE AERIAL



**UNIQUEMA (CRODA)
aka ICI ATLAS POINT**