Land Quality

Environmental Cleanup

Environmental Cleanup Site Information (ECSI) Database
Site Summary Report - Details for Site ID 395, Schnitzer Investment - Doane Lake/Air Liquide

This report shows data entered as of December 21, 2015 at 3:16:30 PM

This report contains site details, organized into the following sections: 1) Site Photos (appears only if the site has photos); 2) General Site Information; 3) Site Characteristics; 4) Substance Contamination Information; 5) Investigative, Remedial and Administrative Actions; and 6) Site Environmental Controls (i.e., institutional or engineering controls; appears only if DEQ has applied one or more such controls to the site). A key to certain acronyms and terms used in the report appears at the bottom of the page.

Note: DEQ may have posted online documents related to this site. If so, they would be available for viewing or downloading on ECSI Summary Page

Go to DEQ's Facility Profiler to see a site map as well is information on what other DEQ programs may be active at this site.

General Site Information

Site ID: 395	Site Name: Schnitzer Investment - Doane Lake/Air Liquide	CERCLIS No: 980726210
Address:	6529 NW Front Ave. Portland 97210	
	County: Multnomah	Region: Northwest
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No NPL Site: No	Orphan Site: No Study Area: No
Property:	Twnshp/Range/Sect: 1N , 1W , 13	Tax Lots: 33
	Latitude: 45.569 deg. Longitude: -122.7467 deg.	Site Size: 6.3 acres
Other Site Names:	Air Liquide America Corp. - Acetylene Plant Liquid Air - Acetylene Plant Portland Harbor Sediment Study MMGL Industrial Air Products	

Site Characteristics

General Site Description:	The site consists of two parcels located in the industrial area of northewest Portland at 6529 NW Front Avenue. The Schnitzer Investment Corp.-Doane Lake Site and the Air Liquide Site. The sites are located within the footprint of a former lake (Doane Lake). The Schnitzer Investment Corp.-Doane Lake site encompasses 3.5 acres on the

northern portion of Tax Lot 700 and is zoned for general industrial. The site is currently vacant. In the early 1970's portions of the site were filled with shredder residue. According to Schnitzer employees, the shredder mill feed stock included crushed automobile bodies, light sheet metal, household appliances, sheet-tin roofing, fence, wire fence, and light material with a ferrous component.

The Air Liquide Site encompasses 2.88 acres on the southern portion of Tox Lot 700 and is zoned for general industrial.
The southern portion has been leased from Schnitzer by Air Liquide since 1969. Air Liquide owns and operates an acetylene production facility on the property. Stormwater is discharged from the site under a 1200-Z NPDES permit via a private connection to the existing City of Portland stormwater system (discharge point Outfall-22B)

Industrialization of the Doane Lake area began in the 1930's when significant amounts of fill materal were added to the lake.

Site History:

The site is located within the footprint of the former Doane Lake. From approximately the 1940s to 1990, other portions of the larger Doane Lake that were located on adjacent properties were filled with soil, dredge spoils, wastes, and fill material from various industrial activities by various property owners including ESCO (wastes from ESCO's off-site foundry operations including foundry sand, dust, yard debris, slag, scale, and metals), NL/Gould (discarded battery casing materials and other lead smelter wastes), BNSF (dredge spoils and imported fill), and Rhone-Poulenc (imported fill and herbicide/insecticide manufacturing wastes).

Air Liquide Portion - In the past, calcium hydroxide, a byproduct of the acetylene production process, was discharged onto former Doane Lake. The former calcium hydroxide pond was excavated and filled with a mixture of soil and demolition debris.

Schintzer Doane Lake Portion - In the early 1970's Auto shredder fluff material was used to fill the northern portion of the site. Auto shredder fluff is potential source of contamination, including PCBs, metals and VOCs.

Site previously entered as ECSI #66; Liquid Air Corp. - Acetylene Plant.

Contamination Information:

Air Liquide Site:
An acetylene manufacturing plant was built on the site in 1949. The process generates calcium hydroxide wastes, which was discharged into Doane Lake. Calcium hydroxide was detected in surface/subsurface soils, and in surface and groundwater around the lake, with many pH values over 12.

In March 1995, Air Liquide reported a spill of 200 gallons of waste compressor oil. Air Liquide's cleanup of this soil resulted in the discovery of a subsurface layer of contaminated soil (potential from asphalt shingles used a fill) that appeared to be unrelated to the compressor oil spill. This deeper layer of soil contamination extended to a depth of at least 3 feet, and contained PCB 1254 and three chlorinated solvents: TCA, PCE, and 1,1-DCA.

In 1993, Air Liquide removed a 1,500-gallon acetone UST low levels of acetone and MEK were detected in soil and groundwater in the tank vicinity.

Stormwater at the Air Liquide site has been investigated as part of portland harbor source control. DEQ determined that, while stormwater monitoring indicates some exceedances of Portland Harbor Joint Source Control Stratagy screening level values, DEQ determined that additional upland source control work is not warrented. Based on 2013/2014 stormwate monitoring results, DEQ anticipates the site will exceed NPDES permit benchmarks for several metals, which will necessitate implementation of an engineered system to address benchmark exceedances in 2016.

Schnitzer-Doane Lake:

	In the early 1970's non-magnetic shredder residue were deposited on the site by Schnitzer. Constituents of interest (COIs) potentially associated with the various fill materials include PCBs, phthalates, volatile organic compounds (VOCs) and certain metals. Adjacent Sites: Former Doane Lake Sediments, (10 to 14 feet below ground surface) have also been impacted by releases from adacent sites (Rhone-Poulenc, NL/Gould and ESCO Willbridge Landfill).Sediment samples were collected from the former Doane Lake sediments as part of the adjacent NL/Gould and Rhone Poulenc investigations. Several contaminants were detected including; lead, PCBs, pesticides, herbicides, VOCs, metals and dioxin/furans. Groundwater in the former Doane Lake vicinity has be impacted by pesticide/herbicide production from Rhone Poulenc and is currently be investigated as part of the Rhone Poulenc remedial investigation. Low levels of dissolved lead (<20 ppb) in shallow groundwater may have originated from the adjacent NL/Gould Superfund site (ECSI #49).
Manner and Time of Release:	On-site disposal of calcium hydroxide sludges and auto shredder wastes; releases associated with acetone UST; 2/21/95 spill of waste compressor oil. Former Doane Lake sediments impacted by releases from adjacnet sites into Doane Lake. On-site groundwater may have originated from the adjacent NL/Gould Superfund site and Rhone Poulenc site.
Hazardous Substances/Waste Types:	Calcium hydroxide, acetone, metals (lead, arsenic, zinc, ect.) petroleum hydrocarbons, PCB, chlorinated solvents, phthalates, pesticides, herbicides, dioxin/furans.
Pathways:	The site is located in a heavily industrialized area of Northwest Portland. The Willamette River is about 0.25 mile north and east of the site, and Forest Park is about 0.25 mile south and west of the site. The Schintzer-Doane Lake portion is currently vacant and fenced off. A surface soil cap designed to eliminate the potential for stromwater or wind transport of surface soil was implemented in 2014. Operations at the Air Liquide facilty are restricted from the general public. Shallow groundwater was used by Air Liquide in its industrial processes, but was not used for drinking and is currenlty not used at all. Stormwater from the Air Liquide site is discharged from the site under a 1200-Z NPDES permit via a private connection to the existing City of Portland stormwater system (discharge point Outfall-22B) Stormwater from the
Environmental/Health Threats:	Groundwater contamination and possible direct-contact hazards.
Status of Investigative or Remedial Action:	(8/30/95 GMW) It is unknown whether the calcium hydroxide remaining at the site has a pH above 12.5. If so, it would be classified as a RCRA corrosive waste upon excavation. This material could present a direct-contact hazard to site occupants. Air Liquide cleaned up the majority of compressor oil released in February 1995, although a small area of contaminated soil remains under the building. Remediation of this material revealed pre-existing contamination from an unknown source. Residual levels of acetone and MEK from the former acetone UST are low and do not appear to threaten human health or the environment. Site Assessment recommends further evaluation of the extent and magnitude of caustic soils, as well as of the subsurface contamination discovered during Air Liquide's compressor oil cleanup. (1996) 1,826 cubic yards of shredder residue that was present aboveground was removed in 1996. Subsurface materials were left in place. Prior to removing it from the site the above grade shredder residue was sampled. Laboratory analysis of the

samples showed the presence of EP Tox lead using the extraction procedure for toxicity (EPA Method 1310), ranging from 6.3 milligrams per liter (mg/L) to 73 mg/L. EP Tox cadmium was detected and ranged from 0.2 mg/L to 2.0 mg/L, as shown in Table 1. EP Tox barium was detected and ranged from 8 mg/L to 14 mg/L. Total PCBs Aroclors were detected ranging in concentration from 27 mg/kg to 110 mg/kg

(12/24/2012) Air Liquide started a stormwater source control evaluation in 2009. The evaluation included the collection of stormwater and catch basin solids samples. A Stormwater Source Control Evaluation Report was submitted in December 2012. A final source control decision was issued by DEQ on February 25, 2011 requiring continued management of stormwater through implementation of the 1200Z NPDES permit.

(9/22/2010) Schnitzer Investment Corp. Started a focused source control evaluation for the northern undeveloped portion of the site where filling occurred. A Focused Source Control Evaluation Report & Proposed Source Control Actions report was submitted September 13, 2011 and an addendum to that report was submitted April 4, 2012. The report proposed capping area with exposed shredder residue to eliminate the potential for offsite migration. A source control decision was issued by DEQ on 5/9/2013 requiring capping and deed restrictions be implemented to address the potential for offsite migration of contaminated material.

Data Sources:

1) EPA CERCLA Preliminary Assessment.
2) Monitoring data associated with adjacent NL/Gould site (ECSI #49) and Rhone Poulenc site (ECSI #155).
3) Correspondence from owner and/or operator.
4) Doane Lake Study Area files (ECSI #36).
5) DEQ Northwest Region spill file #95-074.
6) DEQ Northwest Region LUST file #26-93-211
7) Air Liquide Portland Facility Stormwater Sampling Results. Prepared by CH2M HILL for Air Liquide, August 19, 2011.
8) (Air Liquide) Stormwater Source Control Evaluation Report. Prepared by CH2M HILL for Air Liquide, December 14, 2012.
9) Air Liquide Source Control Decision. Prepared by DEQ for the Air Liquide Site File ECSI #395, February 24, 2014
10) Schnitzer-Doane Lake Focused Source Control Evaluation Report and Proposed Source Control Actions. Prepared by Bridgewater Group for MMGL Corp., September 13, 2011.
11) Schnitzer-Doane Lake Addendum to the Focused source Control Evaluation Report. Prepared by Bridgewater Group for MMGL Corp., April 4, 2012.
12) Schnitzer-Doane Lake Source Control Decision. Prepared by DEQ for the Schnitzer-Doane Lake Site File ECSI #395, May 9, 2013.
13) Schnitzer-Doane Lake Addendum to the MMGL Corp. Doane Lake Source Control Action Work Plan. Prepared by Bridgewater Group for MMGL Corp., May 7, 2014.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
ACETONE	Groundwater	8.1 ppb	9/27/1994
ACETONE	Soil	180 ppb	9/27/1994
ARSENIC	Groundwater	740 ppb (dissolved)	2/18/1987
ARSENIC	Soil	16 ppm	7/15/1986
CALCIUM HYDROXIDE	Groundwater	Unknown	
CALCIUM HYDROXIDE	Soil	Unknown	
CALCIUM HYDROXIDE	Surface Water	Unknown	
CHROMIUM	Soil	390 ppm	7/15/1986
DICHLOROETHANE,1,1-	Soil	770 ppb	3/30/1995
LEAD	Groundwater	50 ppb (dissolved)	2/26/1987
LEAD	Soil	230 ppm	7/15/1986

METHYL ETHYL KETONE	Soil	47 ppb	9/27/1994
PCB 1254	Soil	310 ppb	3/30/1995
TETRACHLOROETHYLENE	Soil	530 ppb	3/30/1995
TRICHLOROETHANE,1,1,1-	Soil	7,400 ppb	3/30/1995

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Source Control Decision (Primary Action)	02/25/2014		David Lacey	VCP

Key to Certain Acronyms and Terms in this Report:

CERCLIS No.: The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
Region: DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
NPL Site: Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
Orphan Site: Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
Study Area: Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
Pathways: A description of human or environmental resources that site contamination could affect.
Lead Pgm: This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting David Lacey at the Northwest regional office or via email at lacey.david@deq.state.or.us. If this does not work, you may contact Gil Wistar at (503) 229-5512, or via email at wistar.gil@deq.state.or.us or contact the Northwest regional office.

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For more information about **ECSI** call Gil Wistar at 503-229-5512 or email.

For more information about **DEQ's Land Quality programs**, visit the DEQ contact page.

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