

Site Review And Update

SWOPE OIL & CHEMICAL COMPANY

PENNSAUKEN TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

CERCLIS NO. NJD041743220

SEPTEMBER 3, 1993

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

Agency for Toxic Substances and Disease Registry

Division of Health Assessment and Consultation

Atlanta, Georgia 30333

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**Prepared by:
The New Jersey Department of Health
Under a Cooperative Agreement with
The Agency for Toxic Substances and Disease Registry**

SUMMARY OF BACKGROUND AND HISTORY

Swope Oil and Chemical Company is located in an industrial park in northern Pennsauken Township, Camden County, New Jersey. The site consists of approximately 1.6 acres. It is bounded on the southeast by National Highway, and on the southwest and north by warehouses and railroad rights-of-way. Pennsauken High School is approximately 0.5 mile northeast of Swope Oil Company. Delair and Morrisville Townships are the nearest residential areas from the industrial area. They are about 0.5 mile west and southwest of the site, respectively. The Pennsauken landfill is approximately 0.5 mile from the site.

Swope Oil Company operated a chemical reclamation facility from 1965 through 1979. They reclaimed manufacturing and processing oils, chemicals, chemical compounds, and paints. This included phosphate esters, hydraulic fluids, paints and varnishes, solvents, oils, plasticizers, and printing ink.

Process wastewater from the manufacturing operations was placed in an unlined on-site lagoon. As a result of poor waste management practices, contamination has been found in on-site surface soil, sub-surface soils and in the aquifers consisting of PCB's, VOC's, phthalate esters, and metals.

The site consisted of two buildings, a diked tank farm, an open drum-storage area, a 10,000 gallon underground fuel oil tank, septic tanks and lines, an unlined lagoon, and a buried sludge area. When the site was abandoned, equipment and storage containers were left on-site. Waste liquids and sludges were found in the unlined lagoon, the diked tank farm and in the drum storage area.

The State Bureau of Air Pollution performed a site visit, in 1975, and recommended that the Bureau of Water Pollution Control inspect the site. Swope Oil was cited in 1975 for operating without proper permits and in 1979, for failure to prepare a Spill Prevention, Containment, and Countermeasure Plan.

A Merchantville-Pennsauken Water Commission water supply well less than 100 feet southwest of the site was found to be contaminated with volatile organic compounds (VOC's) and was closed in May 1984. This contaminated water supply well was equipped with air strippers and put back in service in January 1989. However, it could not be determined if the source of contamination was Swope Oil, the Pennsauken Landfill, or other nearby industries. Other municipal wells are nearby, mainly west of the site, near the Delaware River. About 0.8 miles northeast of the site is Pennsauken Creek. The Delaware River is approximately 1.2 miles to the Northwest. Although there are three aquifers, superficial, middle, and bedrock, only the deep aquifer is used as a source of drinking water. The United States Environmental Protection Agency (USEPA) has separated the site into at least two Operable Units (OU). The Remedial

Investigation/Feasibility Study (RI/FS) was prepared in June 1985 (2). The first OU focused on on-site surface soil, removal of all above and below ground storage tanks and drums, remediation of the lagoon, removal of the buried sludge, and installation of a security fence. In May 1984, approximately 72 PRP's signed a consent order with the USEPA to undertake these actions. The potential responsible parties (PRP) have erected a chain link fence around the site to restrict access and have paid for the superficial remediation. The Record of Decision (ROD) was prepared in September 1985 (3). This Operable Unit (OU1) was completed in 1989. In September 1990, a Draft Preliminary Endangerment Assessment report for the site was released by the USEPA (6). A separate RI/FS was prepared for the second OU in March 1991 (4) that addressed removal of the volatile organic compounds in the sub-surface soils by vapor extraction. It has not been decided if groundwater contamination will be addressed in this OU or will be in a separate OU. The ROD for this RI/FS was issued in September 1991 (5). Remediation for OU2 has not yet been initiated.

A health assessment for the Swope Oil Company site was prepared by the Agency for Toxic Substances and Disease Registry (ATSDR) in April 1989 (1) and concluded that: 1) "The site is of potential health concern because of the potential risk to human health resulting from possible exposure to hazardous substances at concentrations that may result in adverse health effects"; 2) A potential exists for human exposure to lead and PCB's via inhalation and ingestion of dusts and dirt from soil and from ingestion of mercury from the municipal well; 3) There is a potential for exposure to contaminants from the sediments of the lagoon, storage tanks, and soil; 4) There is a concern for remedial workers during excavation activities if they do not wear protective equipment; 5) There is a concern for railroad workers because of surface contamination found in the railroad right-of-way; and 6) Future land use activities may pose future health concerns. Previous public health and community concerns focused on the contaminated municipal well, which was subsequently taken out of service.

The health assessment (1) recommended that: 1) Proper safety training and protective equipment should be provided to remedial workers; 2) Remedial alternatives should be developed for the contaminated groundwater; 3) Remedial alternatives should be developed for the municipal well if it is to be placed back into service; 4) Further ATSDR review may be warranted depending on future land use and additional information about well contamination or use; and 5) Although the site was not being considered for follow-up health studies, ATSDR would reevaluate this decision if new data becomes available indicating significant human exposure to hazardous substances.

CURRENT SITE CONDITIONS

On June 16, 1993, a site visit was conducted by Jim Pasqualo and Howard Rubin of the NJDOH along with a representative of the USEPA. The site was fenced off and well

marked with warning signs. There were no signs of trespassing on-site. Part of the site was grassy and the rest had no covering.

The lagoon and surface soil has been remediated, all drums and above ground and below ground storage tanks have been removed, and the two stockpiled buildings have been demolished. Some debris from the site clean-up remained, including deteriorating wooden pallets, about 15 drums, tarps, PVC tubing, and other miscellaneous debris. Stakes connected to plastic sheets, erected as wind breaks for erosion control, were observed to be in disrepair. There were indications that soil was being washed off-site.

In the original health assessment for Swope Oil (1), the ATSDR concluded that exposure of remedial workers is of concern. This concern is directly addressed by OSHA Rule 29 CFR 1910 which requires that remedial workers are required to have the proper training and wear the appropriate protective equipment to negate the possibility of exposure from hazardous sites. The existing data indicate that once the USEPA has remediated the subsurface soil no further remedial action needs to be taken because the source of the groundwater contamination is unknown and the municipal well is equipped with a treatment device. However, the potential adverse effects resulting from the past use of the contaminated municipal well water by the community is of concern.

CURRENT ISSUES

Public health concerns existed prior to site stabilization and remediation and focused on the health threat posed by the lagoon, the PCB-contaminated soil, the stockpiled drums, and the contaminated groundwater. The Health Officer for Pennsauken indicated that there are no new community health concerns for the site. Community health concerns associated with the Pennsauken well were addressed when the contaminated municipal well was closed and a treatment system installed prior to its reactivation.

The site has been remediated except for the PCB-contaminated sub-surface soil and the contaminated superficial and bedrock aquifers. The sub-surface soil will be remediated via soil vapor extraction according to the OU2 ROD. The remediation is scheduled to commence during the late spring of 1994.

The area is predominantly an industrial complex and residences are relatively distant from the site. Therefore, there is only a small likelihood of past exposure to on-site contamination to the general population prior to the time that the fence was erected.

The USEPA has not decided if they are going to remediate the groundwater. If they decide to remediate the groundwater, the USEPA will place it in a third Operable Unit. Additionally, the groundwater plume has not increased in size since the site was remediated. The potential for a completed human pathway to site-related contaminants

via the groundwater route of exposure cannot be determined unless the USEPA is able to ascertain if any of the groundwater contaminants is attributable to the Swope Oil site. Regardless of the source of exposure, the possibility of adverse health effects resulting from past exposure to the contaminated municipal well is of concern.

CONCLUSIONS

1. In light of the existing data, the only previous health assessment conclusion that is still valid is number 6), future land use and activities may pose future health concerns.
2. Based upon current conditions at the site, there are no present completed human exposure pathways associated with Swope Oil. Additionally, there are no previously identified or current community health concerns which have not been addressed.
3. There is the possibility that past exposures to on-site media may have occurred to the workers on-site.
4. The source of contamination of the municipal drinking water well cannot be determined. Regardless of the source of contamination, community-wide past exposures to the contaminated well water did occur, which is of concern to the NJDOH and the ATSDR. Insufficient data are available to determine the public health significance of past exposures.

RECOMMENDATIONS

1. A plan to remove groundwater contamination should be addressed as part of the USEPA's plans for remediation. Additional ATSDR review should be conducted if additional information is obtained regarding the use of area groundwater, contamination, well water use, or future land use.
2. Erosion control measures should be reinstated to prevent the possibility of contaminated sub-surface soils from migrating from the site.
3. It is recommended that a health consultation be performed to determine the public health significance of past worker exposure to contaminated on-site media.
4. The ATSDR and the NJDOH have determined that, while no current human exposures are occurring at the present time, there is concern about past exposures to the municipal well. It is, therefore, recommended that the municipal well be

considered as a candidate for ATSDR exposure dose reconstruction. After the exposure dose is determined, then a health consultation should be performed to determine the public health significance of past exposure to contaminated drinking water.

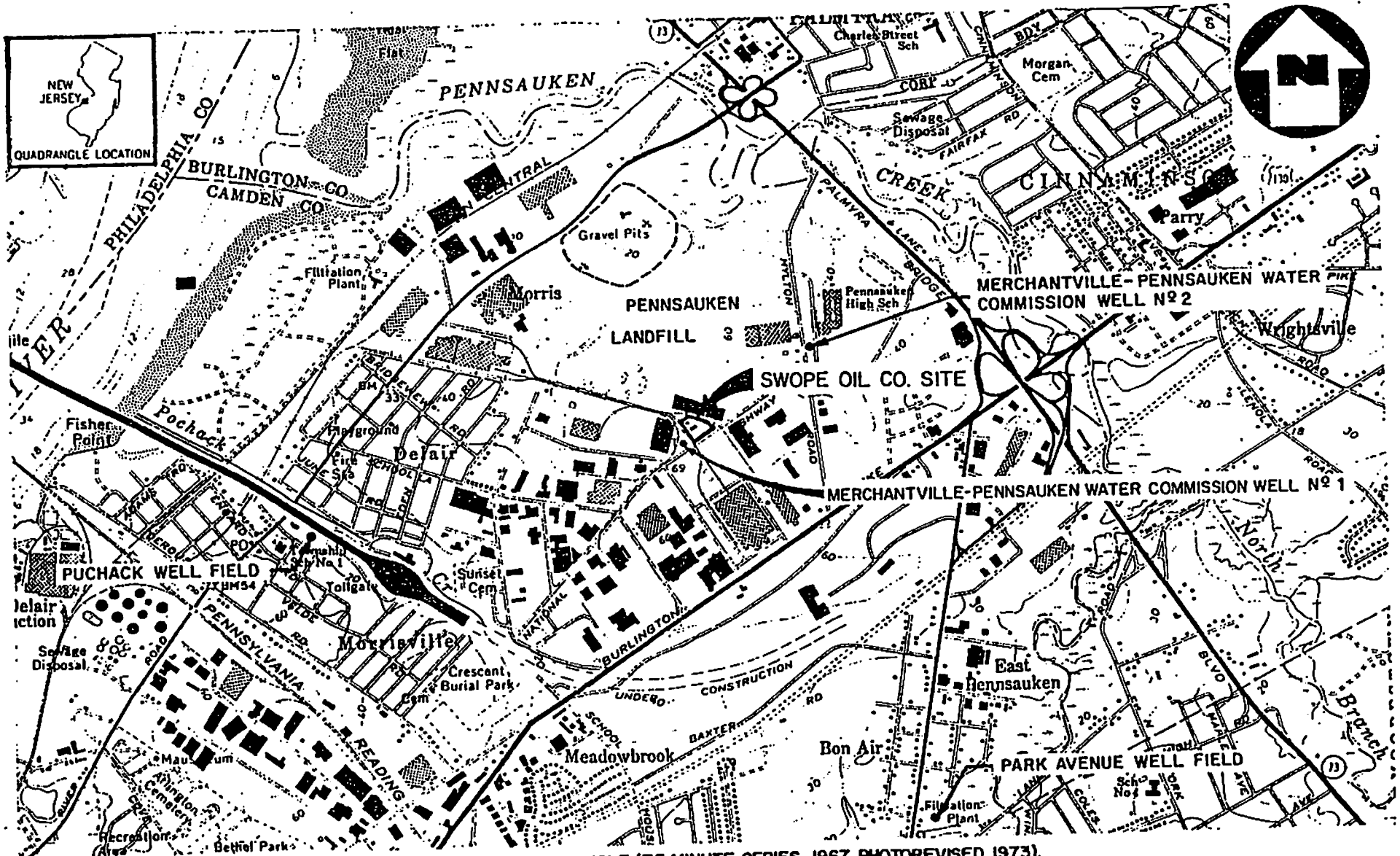
5. The data and information developed in the Site Review and Update have been evaluated to determine if follow-up actions may be indicated. Further site evaluation is needed to determine appropriate public health actions.

DOCUMENTS REVIEWED

1. Agency for Toxic Substances and Disease Registry. Health Assessment for Swope Oil Company, Pennsauken Township, New Jersey. April 1989.
2. United States Environmental Protection Agency. Remedial Investigation/ Feasibility Study Report for the Swope Oil Company Site, Pennsauken Township, New Jersey, June 1985.
3. United States Environmental Protection Agency. Record of Decision for the Swope Oil Company Site (OU1), Pennsauken Township, New Jersey. September 1985.
4. United States Environmental Protection Agency. Supplemental Remedial Investigation Report for the Swope Oil Company Site (OU2), Pennsauken Township, New Jersey. March 1991.
5. United States Environmental Protection Agency. Record of Decision for the Swope Oil Company Site (OU2), Pennsauken Township, New Jersey. September 1991.
6. United States Environmental Protection Agency. Draft Report Preliminary Endangerment Assessment for the Swope Oil Company Site, Pennsauken Township, New Jersey. September 1990.

PREPARER OF REPORT

Howard E. Rubin, Ph.D
Research Scientist
New Jersey State Department of Health

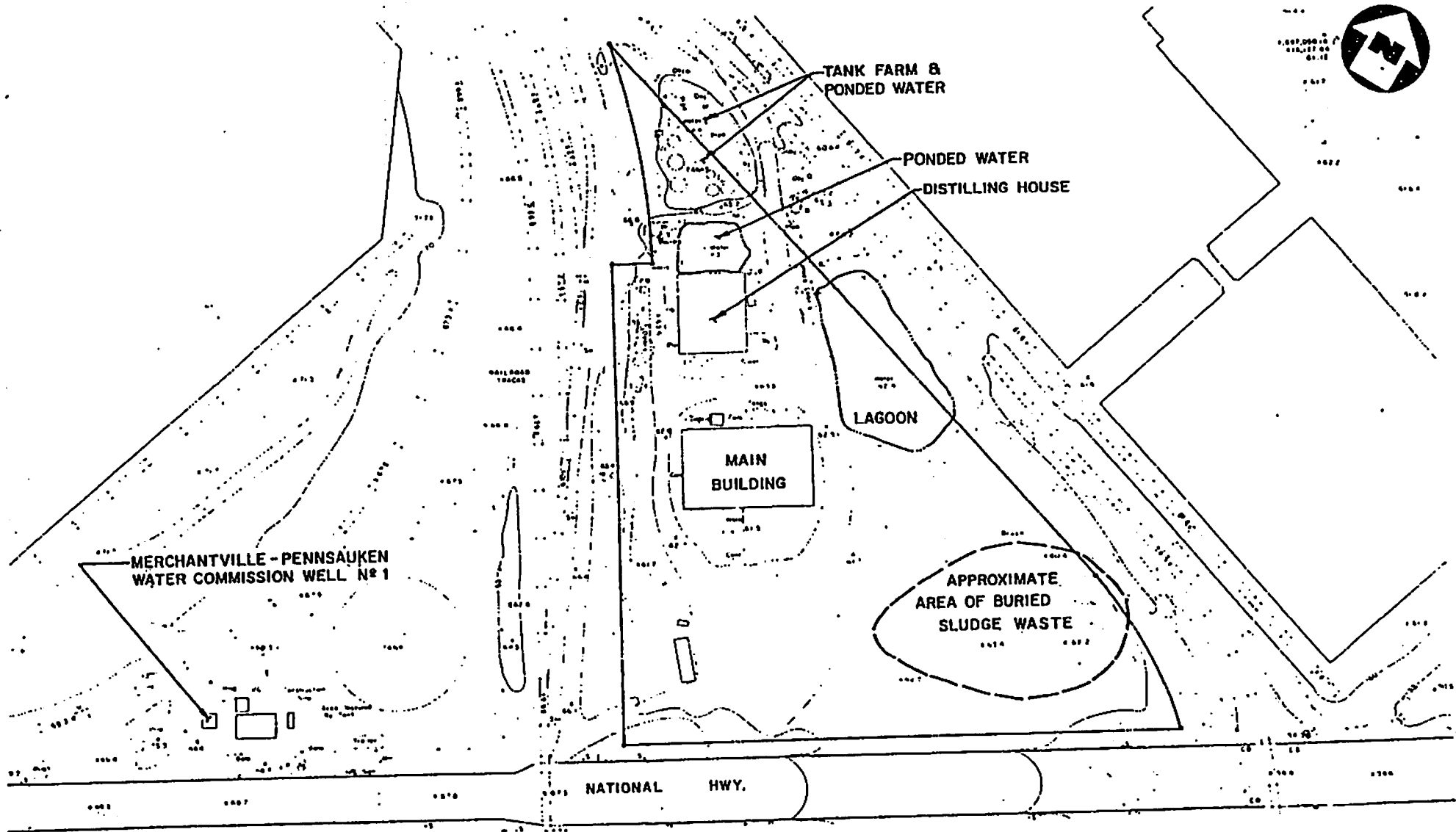


BASE MAP IS A PORTION OF THE U.S.G.S. CAMDEN, NJ - PA QUADRANGLE (7.5 MINUTE SERIES, 1967, PHOTOREVISED 1973).
 CONTOUR INTERVAL 10'

DRAFT

LOCATION MAP
SWOPE OIL CO. SITE, PENNSAUKEN TWP, NJ
 SCALE: 1"=2000'





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SITE PLAN
SWOPE OIL CO. SITE, PENNSAUKEN TWP., NJ
 SCALE 1" = 60'

