

**Jacks Creek/Sitkin Smelting & Refining
Maitland, Pennsylvania
Region 3
PAD980829493**

Site Exposure Potential

The Jacks Creek/Sitkin Smelting & Refining, Inc. site is located on 47 hectares 15 km east of Maitland, Pennsylvania (Figure 1). Sitkin used the facility for smelting and refining metal until declaring bankruptcy in 1977. Currently, 130,000 metric tons of ball mill tailings containing lead and other heavy metals are stockpiled on the site. Part of the facility was purchased by Joseph Krentzman and Sons, Inc., to use as a scrapyard; CIT Corporation and the Alabama Bankruptcy Court own the remainder. In 1984, EPA detected PCBs in on-site soil, and lead and PCBs in Jacks Creek. Preliminary results indicate that lead may also be present in on-site groundwater. Krentzman has submitted a proposal to the Pennsylvania Department of Environmental Resources (PA DER) to remove the PCB-contaminated soil and encapsulate it elsewhere on the site. The company also plans to dismantle the smelters and arrange for proper disposal. Sitkin Smelting is cooperating with the PA DER to control contaminant migration to Jacks Creek, but no cleanup has taken place (EPA 1987).

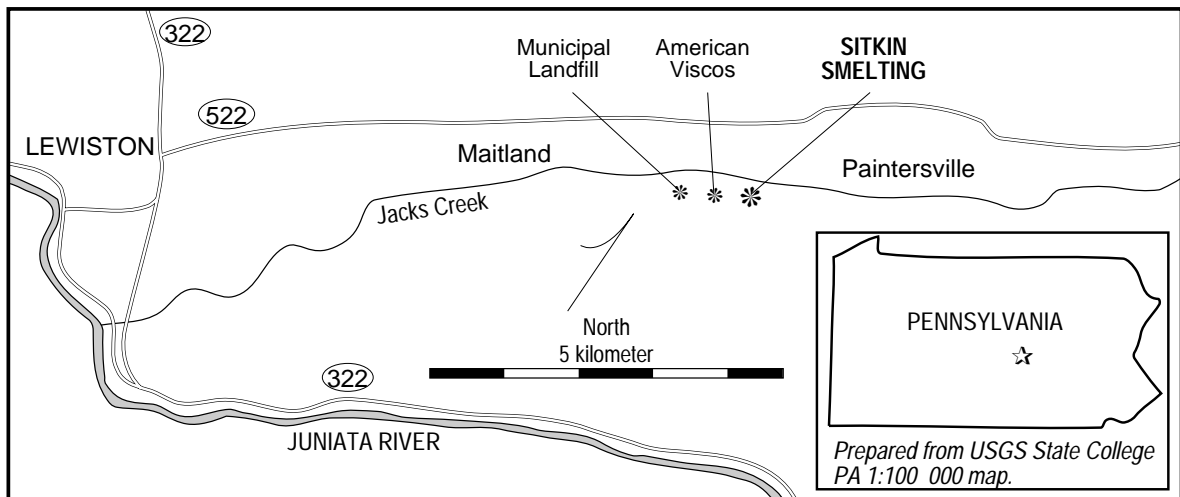


Figure 1. The Jacks Creek/Sitkin Smelting site in Maitland, Pennsylvania.

A small creek flows through a culvert beneath the mining waste piles and discharges into Jacks Creek off-site. Jacks Creek flows west along the northern perimeter of the facility and through a small wetland before discharging into the Juniata River 11 km from the site. The Juniata River flows for 75 km before it merges with the Susquehanna River, a tributary of the Chesapeake Bay. The Sitkin Smelting Site is 236 km from the Chesapeake Bay.

Two other sites of interest are downgradient and adjacent to Jacks Creek west of the site: a closed chemical waste lagoon owned by American Viscos, a rayon manufacturer, and a closed municipal landfill.

Possible contaminant migration pathways to NOAA trust resources include groundwater flow, leachate, and surface water runoff to Jacks Creek and the Juniata River.

Site-Related Contamination

Based on a preliminary assessment, contaminants of concern to NOAA at the site include trace metals and PCBs (Table 1). Copper, lead, and zinc were measured above AWQC in groundwater, Jacks Creek, and surface water from an on-site culvert. Sediments from Jacks Creek downstream of the site had elevated levels of chromium, copper, lead, and PCBs; sediments from the on-site culvert had high levels of lead. PCBs were also detected in Jacks Creek sediment downstream of the site and in sediments from the on-site culvert.

Table 1. Maximum concentrations of selected contaminants at the Jacks Creek site (EPA 1987); AWQC for the protection of freshwater aquatic life (EPA 1986); concentrations in water in µg/l and in sediment in mg/kg.

Contaminant	Jacks Creek	Jacks Creek Sediment		On-Site Culvert		AWQC		
	Surface Water	Upstream	Downstream	Groundwater	Water	Sediment	Acute	Chronic
ORGANIC COMPOUNDS								
PCBs	N/A	N/A	1.9	N/A	N/A	2.2	2	0.014
INORGANIC SUBSTANCES								
<u>Trace Metals</u>								
cadmium	N/A	N/A	N/A	24	18	N/A	3.9†	1.1†
chromium	N/A	<12	156	529	N/A	N/A	16	11
copper	77	<21	434	7,120	3,860	N/A	18†	12†
lead	59	<29	999	2,030	1,620	3,270	82†	3.2†
zinc	197	N/A	N/A	11,600	4,740	N/A	120†	110†
N/A: Not available		† Hardness-dependent (based on 100 mg/l CaCO ₃)						

NOAA Trust Habitats and Species in Site Vicinity

Jacks Creek is a medium-sized stream that flows along the northern border of the Sitkin Smelter facility. The creek, six to nine meters wide and between 0.5 and 1.0 meters deep, supports a diverse benthic community and is considered to have water quality improved from past conditions (Schott 1989). Juniata River, a warmwater system with generally good water quality, is 150 meters wide and three meters deep near the site.

Resources of interest to NOAA in Jacks Creek and the Juniata River are limited by a series of four dams on the Susquehanna River 75 km downstream of the site. The Conowingo Dam is the largest of these dams that prevent natural migration of coastal fish species into the upper Susquehanna River. The Susquehanna River Anadromous Fish Restoration Committee (of which NOAA is a member) has revived interest in restoring American shad runs to the Susquehanna River and its associated tributaries. In 1986, construction was ordered for a new fishway and improvements in an existing, inadequate fish lift for the Conowingo Dam. Agreements for the construction of fishways at Holtwood, Safe Harbor, and York Haven were also reached (Goodger 1987). Once the fishways are complete, the waterways above the dams, including the Juniata River and Jacks Creek, will be accessible to NOAA trust resources. Fish species believed to be affected by the restoration project include blueback herring, American shad, and striped bass. There is an American shad hatchery on the Juniata River near Thomastown, Pennsylvania, 25 km downstream of the mouth of Jacks Creek (Jackson 1989).

Response Category: Federal Enforcement Lead

Current Stage of Site Action: RI/FS Workplan

EPA Site Manager

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References

EPA. 1986. Quality Criteria for Water. Washington, D.C.: Office of Water Regulations and Standards, Criteria and Standards Division. EPA 440/5-86-001.

EPA. 1987. Hazardous Ranking System Package. Jacks Creek/Sitkin Smelting & Refining, Inc. Maitland, Pennsylvania. Philadelphia: U.S. Environmental Protection Agency, Region 3.

Goodger, T., ecologist, Habitat Conservation Branch, NOAA National Marine Fisheries Service, Oxford, Maryland, personal communication, June 1987.

Jackson, L., regional fisheries biologist, Pennsylvania Fish Commission, Carlisle, Pennsylvania, personal communication, January 1989.

Schott, B., biologist, Pennsylvania Department of Environmental Resources, Harrisburg, Pennsylvania, personal communication, January 1989.