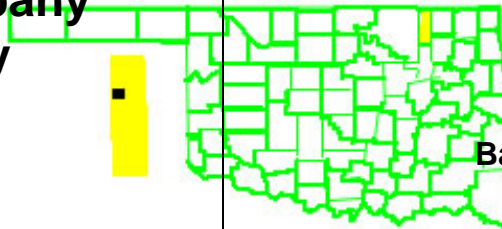


**National Zinc Company  
Washington County  
Oklahoma**

EPA ID#OKD000829440  
Site ID: 0601010



**EPA Region 6**  
Congressional District 01

Contact:  
**Bart Cañellas 214-665-6662**

Other Name:  
**National Zinc, Zinc Corp of America**  
Updated: May 2009

### Current Status

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- Site is under remediation by the Potential Responsible Parties (PRPs) under State, Oklahoma Department of Environmental Quality (ODEQ) oversight.
- Remaining actions include sampling and remediation on additional property owned by South Kansas and Oklahoma (SK&O) and Burlington Northern Santa Fe (BNSF) Railroad Right-of Way, and preparation of the final completion report. ODEQ is in negotiations with the current owner Watco.
- A Five-Year Remedy Review was completed in 2006 and found the remedy protective of human health and the environment.

### Benefits

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- Approximately 1,000 residential properties contaminated with heavy metals were remediated thereby protecting residents for lead exposure.
- Cleaning up the soils in the residential areas significantly lowered the overall blood lead levels in the community. This is supported by blood lead level testing results.

### National Priorities Listing (NPL) History

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Proposed Date: May 10, 1993  
Final Date: Pending

Location: - West 11th and Virginia Streets  
- West side of Bartlesville, near the Washington County line

Population: - Approximately 5,000 people live within one mile of the site.  
- An estimated 1,700 students attend schools, and 170 people work near the site.

Setting: - The site area is a mixed residential, commercial, and industrial area.  
- The contaminated area is approximately 8 square miles.  
- The source of contamination is a zinc smelter of approximately 150 acres.  
- Air dispersion of heavy metals, including lead and cadmium, and community fill projects using smelter slag.

The principal pollutants at the site include: Lead (soil): 12,000 ppm  
Cadmium (soil): 1,400 ppm

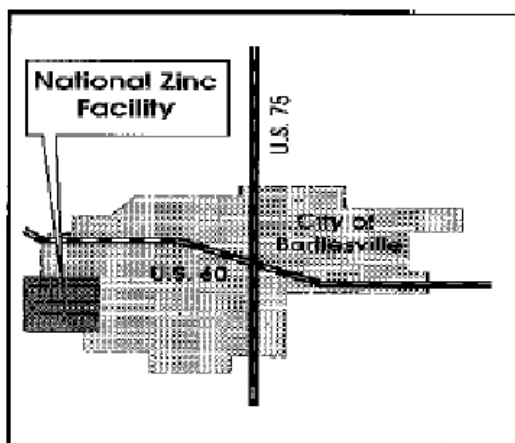
The total volumes of these wastes are undetermined at this time.  
(PPM = Parts Per Million)

## Site Map

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Around 1907, three horizontal retort zinc smelters commenced operations at the location owned by Horsehead Industry Inc (i.e. the Zinc Corporation of America (ZCA) facility). Two ceased operations in the 1920s. In early 1976, the remaining smelter was converted to an electrolytic zinc refinery, which isn't currently operating.

ZCA itself is not included as part of the site. Historical air emissions and slag material contaminated soils in the surrounding area with lead, cadmium and other heavy metals were investigated and remediated within a 3-mile radius.



## Health Considerations

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- Blood lead studies funded by Agency for Toxic Substances and Disease Registry (ATSDR) and performed by Oklahoma State Department of Health (OSDH), (now ODEQ), in 1991 and 1992 indicated that approximately 14% of the children in the contaminated area had elevated levels of blood lead greater than 10 micrograms per deciliter (ug/dl).
- The study revealed that children on the west side of Bartlesville, the side where the facility is located, had elevated levels of blood lead whereas the children on the east side did not.
- Blood lead level testing was performed on children in 1995 for the initial study and annually thereafter until 2000 on a volunteer basis for children from infancy to the age of five. The two-year study was completed in 2001. OSDH summarizes results of the blood lead level testing results compiled from 1995 through 2001. Any concentration 10 ug/dL and above is considered to be an elevated blood level. Using these criteria, no children with elevated blood levels were reported in 1998, 1999, 2000 or 2001.

## Record of Decision (ROD)

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OU1 Signed: December 13, 1994  
OU2 Signed: October 2, 1996

- The operable unit 1 (OU1) Record of Decision (ROD) which addresses residential and commercial properties was signed by the State of Oklahoma on December 13, 1994.
- The selected remedy included: (1) replacement of soil on residential properties with greater than 925 ppm lead, 100 ppm cadmium, and 60 ppm arsenic; (2) Contaminated soil at commercial properties would be addressed through a combination of capping, replacement, tilling, and phosphate treatment.

- The OU2 ROD, which addressed ecological areas, was signed by the State of Oklahoma on October 2, 1996.
- The OU2 ROD called for excavating sediments contaminated with heavy metals in the upper reaches of the North Tributary. The North Tributary drains from the smelter property and flows into Eliza Creek. Ecological impacts in the lower portion of the North Tributary and Eliza Creek are expected to recover by natural processes once the sediment is removed from the upper reaches of the North Tributary near the smelter and after source control measures are implemented at the smelter.

## Contacts

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