U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Sandoval Residential Lead Removal - Removal Polrep
Final Removal Polrep

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**Region V**

**Subject:** **POLREP #4**
**Final**
**Sandoval Residential Lead Removal**
**B5A8**
**Sandoval, IL**
**Latitude: 38.6139332 Longitude: -89.1183874**

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**From:** Kevin Turner, OSC
**Date:** 4/20/2012
**Reporting Period:** 12/15/2011 - 4/10/2012

## 1. Introduction

### 1.1 Background

| | | | |
|---|---|---|---|
| **Site Number:** | B5A8 | **Contract Number:** | |
| **D.O. Number:** | | **Action Memo Date:** | 9/14/2011 |
| **Response Authority:** | CERCLA | **Response Type:** | Time-Critical |
| **Response Lead:** | EPA | **Incident Category:** | Removal Action |
| **NPL Status:** | Non NPL | **Operable Unit:** | |
| **Mobilization Date:** | 10/27/2011 | **Start Date:** | 10/27/2011 |
| **Demob Date:** | 12/14/2011 | **Completion Date:** | 4/10/2012 |
| **CERCLIS ID:** | ILN 053 980 454 | **RCRIS ID:** | |
| **ERNS No.:** | | **State Notification:** | |
| **FPN#:** | | **Reimbursable Account #:** | |

#### 1.1.1 Incident Category

Time Critical Removal Action – Residential property - lead impacted soils

#### 1.1.2 Site Description

The site was a residential community with an approximate population of 1,400 in Sandoval, Illinois. Process wastes exhibiting high lead levels from the former Sandoval Zinc Company was historically used in road and sidewalk construction along with surfacing of secondary roads and for fill material placed upon many of the residential properties in Sandoval, Illinois. Residential properties have exhibited elevated levels of lead associated with the former zinc smelting operation.

#### 1.1.2.1 Location

The site is a residential community at the intersection of US Route 50 and US Route 51 in Sandoval, Illinois. Process wastes from the former zinc smelter facility were widely distributed throughout the community and residential properties. Please note that this removal action does not include the former Sandoval Zinc Company facility located on the eastern edge of the community. It is also important to note that the former facility was added to the National Priorities List. In 2010, Illinois EPA concurred with U.S.EPA listing the Sandoval Zinc Company site on the NPL so that cleanup could be pursued to address human health and environmental risks posed by the former facility. U.S.EPA is the lead environmental regulatory agency for the Sandoval Zinc Company

site under the Superfund Program.

#### 1.1.2.2 Description of Threat

Sandoval Zinc Company operated a smelter for 85 years. Zinc smelting is the process for converting zinc-bearing ores into pure zinc. The company closed in 1985 and filed bankruptcy in 1986. Air emissions from the plant included metals and wind-blown ash. Large amounts of the cinder/slag from smelting were used in constructing and surfacing secondary roads and for fill material on the property. The cinder/slag material not used by the plant was offered to the public and the Village of Sandoval to construct roads, driveways, sidewalks, parking lots and for fill for residential properties. Many areas in town exhibit evidence of past use of this material, some of which has been covered with concrete.

An uncontrolled waste pile made up of cinders and slag covers approximately five acres of the former facility. The cinder/slag contains elevated levels of lead, zinc and other metals. Contaminants have migrated from the site to a drainage ditch and adjacent pond and wetlands. Antimony, arsenic, cadmium, lead, mercury, nickel and zinc were detected in the wetlands in excess of U.S.EPA's regional sediment screening values. Antimony, arsenic, lead and zinc have been found in residential yards in excess of U.S.EPA's regional screening levels.

### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Site Background - Illinois EPA

The Sandoval Zinc Company site was placed on CERCLIS on December 1, 1983 in response to concerns that past site activities may have resulted in soil and sediment contamination on the site and throughout the surrounding area. The Illinois EPA conducted a Preliminary Assessment in 1986, a Screening Site Inspection in 1988, and an Expanded Site Inspection in 1997.

In 1991 Illinois EPA placed a seal order on the abandoned facility. Also that year, Illinois EPA undertook removal actions in response to a spill of fuel oil from an above ground storage tank. Additional cleanup activities performed by Illinois EPA in 1998 consisted of repairing and replacement of fencing, the removal of hazardous substances inside the buildings and the demolition and disposal of site buildings. In October 2009, an Expanded Site Inspection (ESI) was conducted as part of the site assessment process.

Currently the former Sandoval Zinc site is abandoned. An additional Expanded Site Inspection was conducted during the week of October 19-22, 2009. During the ESI, the Illinois EPA sampling team collected fifteen sediment, twenty-seven soil, and four slag/waste samples from the Sandoval Zinc facility and surrounding area. The 2009 ESI was conducted to help determine the levels of contamination present at the Sandoval Zinc facility as well as any receptors which could potentially be impacted by former activities at the site. These potential receptors include designated wetlands, environmental and aquatic wildlife and human receptors. The twenty-seven soil samples collected as part of the Illinois EPA's ESI were collected from residential areas within Sandoval, located west of the Sandoval Zinc property. These samples were collected to help determine whether contamination from Sandoval Zinc has been utilized in the filling of low residential areas and as base for roads and sidewalks and whether these activities could pose a hazard to the residents. The soil samples were collected with hand trowels and analyzed for the inorganic portion of the Target Compound List. All soil samples were collected within the top six inches of soil.

Based upon the Illinois EPA results, on March 11, 2010, the Illinois EPA submitted a letter to U.S. EPA requesting assistance from the U.S. EPA Region 5 Superfund Division in conducting a potential time-critical removal action at the Site.

Site Background - U.S. EPA

The FIELDS Group (U.S. EPA Region 5) and Removal Program conducted a soil sampling event from August 23 through August 26, 2010 on residential properties in Sandoval, Illinois (Marion County) as part of the Sandoval Zinc Superfund Site evaluation and Site Assessment. The report produced by FIELDS details the XRF levels for Arsenic, Lead, and Zinc metals in residential soils, data collection methods, and analysis performed on these data. At the completion of the sampling event, 156 residential soil samples were collected representing 69 different properties. A total of 22 properties were screened and sampled by the US EPA Removal Program as part of the Removal Site Assessment to determine the highest lead concentrations within the residential properties.

On September 16, 2011, the U.S. Environmental Protection Agency published Superfund's National Priorities List (NPL) Final Rule #52 in the Federal Register(76 FR 57662). This final rule added the former Sandoval Zinc Company facility, a 14-acre site located on the eastern edge of Sandoval in Marion County, Illinois to the National Priorities List (NPL).

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

In late October, 2011, USEPA mobilized Emergency and Rapid Response Services (ERRS) and Superfund Technical Assessment and Response Team (START) contractors to assist with the removal of lead impacted soils found at many of the residential properties in Sandoval, Illinois.

On April 10, 2012, completed site restoration by performing final grading and hydro-seeding all disturbed areas.

#### 2.1.2 Response Actions to Date

On October 27, 2011, US EPA mobilized ERRS and START contractors to the site to begin lead removal and residential property restoration activities.

START obtained 11 completed access agreements for lead removal purposes.

START collected a representative sample from the low-level lead impacted soil stockpile.

A soil staging area was established in order to stockpile low-level lead impacted soil and clean backfill.

A hand-held X-Ray Fluorescence (XRF) field instrument was utilized to determine the presence and extent on lead impacted soil located in the residential properties. The USEPA residential cleanup standard of 400 ppm was used for all properties associate with this removal action.

The soil staging area was restored to final grade and reseeded on April 9, 2012.

A total of eight properties were remediated as part of this removal effort. Two property owners rescinded access. Therefore, those two properties were not remediated.

After waiting four months for the grass growing warm season, USEPA dispatched a 3-person work crew from ERRS including one small tracked loader with EZ-grader attachment to conduct final grade-work of the 8 remediated properties and the former soil staging area. Rye grass was broadcast applied to the former staging area.

On April 10, 2012, a hydro-seed sub-contractor spray applied a “Jaguar” seed mix with a quick growing fertilizer to a total of 7 remediated properties. Please note that one property owner elected not to accept the hydro-seed restoration offer.

**Progress of Residential Lead Removal Activities:**

| Address | ExcavationStart | ExcavationEnd | BackfillComplete | Hydro-SeedGrass Restoration |
|---|---|---|---|---|
| xxxx E. Commercial | 10/31/2011 | 11/08/2011 | 11/18/2011 | 04/10/2012 |
| xxxx N. Vine | 11/10/2011 | 11/10/2011 | 11/16/2011 | 04/10/2012 |
| xxxx S Clay | 11/11/2011 | 11/15/2011 | 11/17/2011 | 04/10/2012 |
| xxxx W. Virginia | 11/16/2011 | 11/17/2011 | 11/17/2011 | 04/10/2012 |
| xxxx N. Railroad | 11/28/2011 | 11/28/2011 | 11/28/2011 | Did not desiregrass restoration |
| xxxx E. Commercial | 11/30/2011 | 12/02/2011 | 12/12/2011 | 04/10/2012 |
| xxxx E. Commercial | 12/06/2011 | 12/07/2011 | 12/09/2011 | 04/10/2012 |
| xxxx E. Commercial | 12/08/2011 | 12/08/2011 | 12/09/2011 | 04/10/2012 |

**2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

U.S. EPA Region 5 Superfund staff expects to begin work on the Remedial Investigation/Feasibility Study in spring 2012.

**2.1.4 Progress Metrics**

| *Waste Stream* | *Medium* | *Quantity* | *Manifest #* | *Treatment* | *Disposal* |
|---|---|---|---|---|---|
| Low lovel lead impacted soil and misc. debris. | Soil | 1296 tons | - | None | Landfill (Special Waste) Perry Ridge Landfill |
| | | | | | |
| | | | | | |

| R5 Priorities Summary | | |
|---|---|---|
| This is an Integrated River Assessment. The numbers should overlap. | Miles of river systems cleaned and/or restored | |
| | Cubic yards of contaminated sediments removed and/or capped | |
| | Gallons of oil/water recovered | |
| | Acres of soil/sediment cleaned up in floodplains and riverbanks | |

| | | |
|---|---|---|
| Stand Alone Assessment | Acres Protected | 3 |
| | Number of contaminated residential yards cleaned up | 8 |
| | Human Health Exposures Avoided | 37 |
| | Number of workers on site | 4 |
| Contaminant(s) of Concern | | |
| Contaminant(s) of Concern: Low Level Lead in a residential setting from a former zinc smelter. | | |

**2.2 Planning Section**

**2.2.1 Anticipated Activities**

None. All field work is complete at this time.

START will prepare official “clean letters” for OSC signature and will mail such to the eight affected homeowners.

**2.2.1.1 Planned Response Activities**

No additional response activities are planned by USEPA Region 5, Emergency Response and Removals Branch.

Because the site has been added to the National Priorities List, future clean-up of additional residential properties would most likely be performed by USEPA Region 5, Remedial Branch.

**2.2.1.2 Next Steps**

All field work is complete at this time. Residential property owners will assume watering and maintenance care of re-established grass cover.

**2.2.2 Issues**

None.

**2.3 Logistics Section**

No information available at this time.

**2.4 Finance Section**

**2.4.1 Narrative**

A task order was issued to Environmental Restoration, LLC on 9/27/2011 for $190,000. On December 8, 2011, was issued an increase of $22,000. ERRS expenses to date are $206,711.

The START Technical Directive Document was issued for $25,000 on 10/4/2011. On December 2, 2011, a Technical Directive Document amendment was issued for $17,000. START expenses to date total $36,184.00.

### Estimated Costs *

| | Budgeted | Total To Date | Remaining | % Remaining |
|---|---|---|---|---|
| **Extramural Costs** | | | | |
| ERRS - Cleanup Contractor | $212,000.00 | $206,696.25 | $5,303.75 | 2.50% |
| TAT/START | $42,000.00 | $36,184.00 | $5,816.00 | 13.85% |
| **Intramural Costs** | | | | |
| USEPA - Direct | $0.00 | $5,500.00 | ($5,500.00) | 0.00% |
| | | | | |
| **Total Site Costs** | $254,000.00 | $248,380.25 | $5,619.75 | 2.21% |

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s).

Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

### 2.5 Other Command Staff

#### 2.5.1 Safety Officer

Safety Meetings were held every morning and before the beginning a new work assignment.

#### 2.5.2 Liaison Officer

#### 2.5.3 Information Officer

## 3. Participating Entities

### 3.1 Unified Command

US EPA directed all work in the removal effort.

### 3.2 Cooperating Agencies

Illinois EPA was notified.

## 4. Personnel On Site

US EPA -- 1
START -- 1
ERRS -- 3

## 5. Definition of Terms

No information available at this time.

## 6. Additional sources of information

No information available at this time.

## 7. Situational Reference Materials

No information available at this time.

POLREP #4 Last Updated 4/26/2012