U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Southside Chattanooga Lead - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: **POLREP #19**
Residential Soil Removal Continues
Southside Chattanooga Lead

Chattanooga, TN
Latitude: 35.0333793 Longitude: -85.3057271

To:
From: Perry Gaughan, On Scene Coordinator
Date: 7/11/2013
Reporting Period: June 17th though June 29th 2013

1. Introduction

1.1 Background

Site Number:	B4J4	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	8/19/2012
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	9/17/2012	**Start Date:**	9/24/2012
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Lead contaminated soil on 52 properties being removed as a time critical removal under CERCLA.

1.1.2 Site Description

The Tennessee Department of Environmental Conservation (TDEC) requested the EPA Region 4 Emergency Response and Removal Branch's (ERRB's) assistance after discovering that the lawns of one residence and potentially several more were contaminated with lead along Read Avenue near downtown Chattanooga. Initially, one resident along Read Avenue presented to the emergency room with severe fatigue and abdominal pain. Emergency room blood work indicated lead levels approaching 20 micrograms per deciliter (ug/dl) which alerted TDEC to conduct follow up assessments. TDEC requested assistance from ERRB to characterize the soil around the home and an initial assessment was conducted with SESD (Science and Ecosystem Support Division) Athens in which three homes were assessed as well as a public park and playground area at 1700 Mitchell Avenue. Ten samples were collected and two samples showed elevated lead levels exceeding 400 ppm.

1.1.2.1 Location

The Southside Chattanooga Lead Site is located along Read, Mitchell and Carr Avenues south of Main Street in Chattanooga, Hamilton County, Tennessee (Latitude: 35.0456, Longitude: -85.3097). The area is a blend of young, middle income couples who are renovating older constructed homes and low to middle income retired couples who have resided in the area for 20 plus years. The vast majority of homes were built in the early 1900's.

The Southside Chattanooga area is immediately adjacent to downtown Chattanooga and was prone to flooding during the early 1900's and prior to the development of damming and flood control measures by the Tennessee Valley Authority (TVA). Several of the homes along Read and Mitchell Avenues appear to have been built on 4-5 feet of clay fill.

1.1.2.2 Description of Threat

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In response to a request from TDEC, the EPA Region 4 ERRB with assistance from SESD Athens, conducted two follow up assessments of the Read and Mitchell Avenue area in January and April 2012. Of the 81 homes (162 front and back yards) assessed near downtown Chattanooga, 68 lawns (42 %) have lead

levels exceeding 400 ppm. Lead levels range from 400 – 4000 ppm. The 4000 ppm sample was collected from a lawn along the 1600 block of Read Ave and the sample contained very dark fine material, most likely a high concentration of bag-house dust.

In addition, the Battle Academy Elementary School which neighbors the site was sampled in mid June 2012. A 20' by 20' grid was laid over the school property and 140 grids were screened using X-ray fluorescence spectroscopy (XRF). No significant lead contamination was found and all lead levels were below 55 ppm.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

June 17th through June 22nd 2013

Soil excavation operations were cancelled on Monday, June 17th and Tuesday, June 18th because of rain.

On Wednesday, June 19th, the ERRs crew began removal efforts in the back yard of 1723 Mitchell. This area was mostly covered with a thick gravel parking pad and surrounded by approximately two foot wide garden strip. The crew hand dug the strip area, because using the mini-excavator was not feasible. These areas were backfilled with topsoil and compacted the same day.

On Thursday, June 20th, the ERRs crew continued removal efforts in the back yard of 1721 Mitchell (north side), conducted backfilling operations in the back yard of 1719 Mitchell and excavated a small area on the 1715/1719 property line. Excavated areas were backfilled and compacted the same day. A gravel parking area was also re-established at the home owners direction at 1719 Mitchell.

On Friday June 21st, the crew began removal operations at 1725 Mitchell. Both the front and back yard were completed this day. Once removal of contaminated soil was complete, the crew backfilled with clay and topsoil. One area in the back yard of 1725 Mitchell, near the back patio steps where children living at this residence have their bicycles parked had a lead level of 22,900 ppm by XRF. This area contained the highest screening concentration for lead at the project site to date. START and the OSC communicated with these tenants to discuss exposure concerns for the children. Bare areas were covered with a straw layer.

June 24th through June 29th 2013

On Monday June 24th, the ERRS crew dug several holes at the front and side yards of 1719 and 1721 Mitchell Avenue. START screened these locations and found exceedances for lead. The crew began removing material from the side yard of 1719 and 1721 MA, both front yards of the two properties, and a small area of the front yard of 1723 MA. The front yards of 1719 MA and 1721 MA were backfilled with clay on the same day. The small yard of 1723 MA was filled with compost, as this location was where a flower garden was formerly located and did not need to receive clay backfill. The flowers from the garden were replanted on the same day that removal was completed. During removal at 1721 MA, the crew observed a broken clean-out line in the front yard. A local plumber was subcontracted to make the repair.

On Tuesday, June 25th, the crew continued backfill operations at the three front yards. The yards also received a layer of topsoil, and the areas were graded and tamped. Once the three front yards were completed, the ERRS crew dug several holes at 1731 Mitchell Avenue. This yard did not have any observed exceedances during the assessment phase, however due to the material having varied concentrations among yards; START is conducting further assessment of yards before the crew moves on to new properties. The front yard of 1731 MA did not have any exceedance for lead or arsenic – the front area was mostly hard, dry clay soil. The back yard exhibited the same characteristics, with the exception of two small areas alongside the wooden fence surrounding the back yard. Once the area was better delineated, the crew addressed the two small contaminated areas in the back yard. These small areas were backfilled with topsoil, tamped, covered with straw and seeded. The remaining back yard was further seeded in an effort to make the rest of the back yard match the areas remediated. Once this area was completed, the crew dug holes at the front and side yard of the property at 1733 Mitchell Avenue. START screened these locations and observed very black brown material; very different from the material of the neighboring property, and there were several areas with exceedances for both lead and arsenic. This property is adjacent to 19th Street, and the grassy area to the left of the structure also had consistent exceedances for lead and arsenic. The Field Supervisor anticipated doing removal at these areas of concern tomorrow.

On Wednesday June 26th, the ERRS crew began removal of the contaminated material from the front yard of 1733 MA. Black brown material was observed within approximately one foot of the material from ground surface. Once this area was completed, the crew moved to the left side yard of the property to remove contaminated material observed there the day before. In this location, clay was not observed. Due to this location having a steep slope downward toward the house, the close proximity to the house, and never observing native clay material, this material was only removed down to a foot of contaminated material. START observed very black material, and several large chunks of coal and slag. Also in this area were pieces of glass and an old tire. Arsenic and lead were observed in almost every screened location. Once the material was removed down to a foot, this area and the front yard were backfilled, tamped and covered with straw. Sod was delivered this day, and the crew placed sod at 1719 MA, 1721 MA, and 1733 MA. The site plumber visited this day to repair the broken clean out at 1721 MA.

On Thursday June 27th, the ERRS crew began removal at the back yard of 1733 MA. Items in the back yard were removed or placed out of the way for work to be conducted. Sections of the chain link fence surrounding the back yard were also removed in an effort to make way for heavy equipment. Portions of the

fence could not be saved due to heavy overgrowth within the fencing. Material was removed to one foot below ground surface, backfilled with clay and topsoil, compacted and the crew placed a layer of straw. A small strip of contaminated soil remains and will be addressed during the following operational period. The OSC provided site oversight this day because of a family emergency for the START contractor.

START contractors continue to assist with technical support, daily operations, post-excavation confirmation sampling using X-ray fluorescence spectroscopy (Xrf) and air sampling during excavation and staging of contaminated soils.

The OSC continues to coordinate clean up efforts and assessments with Tenn Dept of Environmental Conservation (TDEC) and Tenn Dept of Health as well as Hamilton County health officials. TDEC and the OSC plan to update Chattanooga City Council during February 2013. A specific date has not been set by City Council.

The OSC, Tenn Dept of Health and Tenn Dept of Environmental Conservation (TDEC) are currently preparing an assessment strategy for Chattanooga City Council addressing future lead assessments in the downtown area.

2.1.2 Response Actions to Date

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

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

No information available at this time.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

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4. Personnel On Site

No information available at this time.

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.