REMOVAL SITE EVALUATION FOR PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

REDACTED

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Emergency Response Branch Region 5 77 West Jackson Boulevard Chicago, IL 60604-3507

Prepared by:

WESTON SOLUTIONS, INC.

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TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	ASSESSMENT AREA BACKGROUND	2
3.	2.2 POTENTIAL INDUSTRIAL SOUR CONTAMINATION	ON
4.	3.2 JULY 2013 RESIDENTIAL PROPE3.3 AUGUST 2013 RESIDENTIAL PRO	RTY ASSESSMENT ACTIVITIES
5.	 4.1.1 Assessment Area Res1 Resul 4.1.2 Assessment Area Res2 Resul 4.1.3 Assessment Area Res3 Resul 4.1.4 Harrison Park Reference Are 4.1.5 Little Italy Reference Area R 4.2 ASSESSMENT AREA SOIL LITHO 	RESULTS 10 ts 11 ts 12 ts 13 a Results 14 esults 15 DLOGY RESULTS 16 CES OF LEAD CONTAMINATION AT
	THE ASSESSMENT AREA	16
6.	 5.2 LOEWENTHAL METALS CORPO 5.3 NATIONAL LEAD/SOUTHERN W 5.4 CENTURY SMELTING & REFINIT 5.5 MIDWEST GENERATION FISK S 	16 RATION 31 HITE LEAD WORKS 33 NG 34 ΓΑΤΙΟΝ 36 ESIDENTIAL AREA SITE BOUNDARY
	••••••	37
7.	SUMMARY AND CONCLUSIONS	37
8.	REFERENCES	41

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LIST OF FIGURES

Figure 1-1	Assessment Area Location Map
Figure 2-1	Assessment Area Features Map
Figure 2-2	Predominant Wind Pathway Map
Figure 3-1	Residential Property Sampling Location Map
Figure 4-1	Res1 Surface Soil Sampling Results
Figure 4-2	Res2 Surface Soil Sampling Results
Figure 4-3	Res3 Surface Soil Sampling Results
Figure 4-4	Harrison Park Reference Area Surface Soil Sampling Results
Figure 4-5	Little Italy Reference Area Surface Soil Sampling Results

LIST OF TABLES

Гable 3-1	Soil Sampling Summary
Гable 4-1	Res1 Soil Sampling Results
Гable 4-2	Res2 Soil Sampling Results
Гable 4-3	Res3 Soil Sampling Results
Гable 4-4	Harrison Park Reference Area Soil Sampling Results
Гable 4-5	Little Italy Reference Area Soil Sampling Results
Гable 5-1	H. Kramer Baghouse Sampling Results

LIST OF APPENDICES

Appendix A Laboratory Analytical Reports and Data Validation Reports

Appendix B EPA FIELDS Supplemental Data Analysis

LIST OF ABBREVIATIONS AND ACRONYMS

μg/dl Microgram per deciliter

um Micrometer

ANOVA Analysis of variance bgs Below ground surface

BNSF Burlington Northern Santa Fe

CDC Center for Disease Control and Prevention CDOE Chicago Department of Environment

Century Century Smelting & Refining CFR Code of Federal Regulations COC Contaminant of concern

CRA Conestoga-Rovers & Associates
Crawford Station Midwest Generation Crawford Station

DOJ Department of Justice

FIELDS Field Environmental Decision Support Fisk Station Midwest Generation Fisk Station

ft Feet Square feet

H. Kramer & Company Harrison Park reference area Harrison Park neighborhood

HQ Hazard Quotient

IEPA Illinois Environmental Protection Agency

IVBA In vitro bioaccessibility

Juarez Benito Juarez Community Academy

LA-ICP-MS Laser ablation-inductively coupled plasma-mass spectrometry

lb Pound

Little Italy reference area Little Italy residential neighborhood

Loewenthal Loewenthal Metal Corp.
mg/kg Milligram per kilogram
mg/L Milligram per liter

NAAQS National Ambient Air Quality Standard
NEIC National Enforcement Investigations Center

NFR No Further Remediation

NL National Lead/Southern White Lead Works

NOAA National Oceanic and Atmospheric Administration

OSC On-Scene Coordinator

PAH Polynuclear aromatic hydrocarbon

PCS Pre-CERCLIS Screening

Perez Manuel Perez Jr. Elementary School

PERRO Pilsen Environmental Rights & Reform Organization

Pilsen Lower West Side

Pioneer Environmental, Inc.
PPE Personal protective equipment

RBA Relative bioavailability

LIST OF ABBREVIATIONS AND ACRONYMS (CONTINUED)

RCRA Resource Conservation and Recovery Act REC Recognized environmental conditions

RML Removal Management Level

SAU Site Assessment Unit

SEM/EDS Scanning electron microscopy with energy dispersive spectrometry

SRO Soil Remediation Objective SRP Site Remediation Program

START Superfund Technical Assessment and Response Team

TCLP Toxicity Characteristic Leaching Procedure

TRI Toxic Release Inventory
TSP Total suspended particulate
USGS United States Geological Survey

WESTON Weston Solutions, Inc. XRF X-ray fluorescence

yd³ Cubic yards

Page 1 of 44

1. INTRODUCTION

The U.S. Environmental Protection Agency tasked the Weston Solutions, Inc. (WESTON®),

Superfund Technical Assessment and Response Team (START) to assist EPA On-Scene

Coordinator (OSC) Ramon Mendoza in performing a removal site evaluation in an

approximately 164-acre residential, commercial, and industrial area of the Lower West Side

(Pilsen) neighborhood of the City of Chicago, Cook County, IL (Assessment Area; Figure 1-1).

In addition to the Assessment Area, the overall "Pilsen Soil Site" consists of an alley (owned by

the City of Chicago) and a railroad spur (operated by Burlington Northern Santa Fe [BNSF]),

located south of the Assessment Area. For an evaluation of the impact of present and historical

industrial sources of heavy metal air emissions on soil in the alley and railroad spur, see "Site

Assessment Report for Pilsen Soil Site: Railroad/Alley" (WESTON, 2014a) and "Addendum I to

the Site Assessment Report for Pilsen Soil Site: Railroad/Alley" (WESTON, 2014b).

The objective of the removal site evaluation was to determine the nature and extent of heavy

metal contamination in soil from present and historical sources of heavy metal air emissions on

the Assessment Area and to evaluate potential contributing sources. Specifically, EPA requested

that WESTON START document and photograph current Assessment Area conditions; conduct

x-ray fluorescence (XRF) screening; collect and analyze soil samples; and evaluate the potential

for imminent and substantial threats to the public health, welfare, or the environment posed by

Assessment Area-related conditions.

In May 2013, July 2013, and August 2013, WESTON START conducted three removal site

evaluation field sampling events with a focus on residential properties in the Assessment Area

and two residential reference areas (the Harrison Park neighborhood [Harrison Park reference

area] and Little Italy neighborhood [Little Italy reference area]). Soil samples from the reference

areas served as reference for comparison with the soil samples collected from the Assessment

Area. This report documents the results from these residential areas where soil samples were

collected at the Assessment Area and reference areas during the aforementioned period.

This report is organized into the following sections:

W0141.1A.00260

- **Introduction** Provides a brief description of the scope of Assessment Area evaluation activities.
- **Assessment Area Background** Discusses the Assessment Area description and identifies the potential industrial sources of heavy metal soil contamination.
- Assessment Area Activities Discusses methods and procedures used during the removal site evaluation in residential properties in the Assessment Area and reference areas.
- **Results & Analysis** Discusses analytical results for samples collected during the removal site evaluation for the Assessment Area and reference areas.
- Evaluation of Potential Sources of Lead Contamination in the Assessment Area Describes present and historical entities that may have contributed to lead contamination in Assessment Area soil; summarizes past environmental investigations regarding these entities; and evaluates the potential contribution of these sources to lead contamination in Assessment Area soil. This section includes analyses performed by EPA's Field Environmental Decision Support (FIELDS) group.
- **Definition of Pilsen Soil Site Residential Area Site Boundary** Defines the boundary of the residential area of the "Pilsen Soil Site."
- **Summary and Conclusions** Summarizes the results of the residential Assessment Area and provides conclusions.
- **References** Provides a list of references used to prepare this report.

Figures and tables are presented after the references section (Section 7). There are also two appendices. **Appendix A** provides the laboratory analytical and data validation reports for samples collected during the removal site evaluation and **Appendix B** provides a supplemental soil data analysis by EPA FIELDS.

2. ASSESSMENT AREA BACKGROUND

2.1 ASSESSMENT AREA DESCRIPTION

The Assessment Area is approximately 164 acres in a residential, commercial, and industrial area of the Pilsen neighborhood in the City of Chicago, Cook County, IL (**Figure 2-1**). Two City of Chicago parks, Dvorak Park and Throop Park, and one school, the Manuel Perez Jr. Elementary School (Perez), are located within the Assessment Area. The Benito Juarez Community Academy (Juarez) is located adjacent to the Assessment Area to the west. The majority of the residential front yards and backyards are sunken, about 3 to 6 feet below street level. According

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to National Oceanic and Atmospheric Administration (NOAA) meteorological data collected

from 1928 to 2013, the predominant wind directions in the Chicago, IL, area are from the south

and west. Figure 2-2 presents a projected wind rose superimposed over the southwest region of

the Assessment Area.

As a result of the findings of EPA FIELDS' statistical evaluation of Removal Site Evaluation's

sampling results (Section 5), the Assessment Area was divided into three subareas: Res1, Res2,

and Res3.

• Res1 is an approximately 14-acre semi-rectangular area in the southwest corner of the

Assessment Area, bound by West 19th Street to the north, South Allport Street to the east,

West 21st Street to the south, and South Loomis Street to the west (**Figure 2-1**). In 2010,

the population within Res1 was 1,047 (EPA, 2014a).

• Res2 is an approximately 40-acre arc-shaped area extending approximately 680 feet

northward from the northwest corner of Res1 to West 18th Street and approximately 765

feet eastward from the southeast corner of Res1 to South May Street (Figure 2-1). The

north/west border of Res2 curves southward from the intersection of West 18th Street and

South Throop Street to the intersection of West 21st Street and South May Street. In 2010,

the population within Res2 was 2,109 (EPA, 2014b).

• Res3 is an approximately 110 acre arc-shaped area extending northward from Res2 to

West 16th Street and eastward from Res2 to South Sangamon Street (Figure 2-1). In

2010, the population within Res3 was 5,210 (EPA, 2014c).

The Harrison Park reference area is approximately 160 acres and located approximately 0.4 mile

west of the Assessment Area (Figure 1-1). The Harrison Park reference area is a multi-sided

polygon generally bound to the north by West 16th Street, to the east by South Laflin Street, to

the south by West Blue Island Avenue, and to the west by South Leavitt Street. The Little Italy

reference area is approximately 110 acres and located approximately 1.2 miles north of the

Assessment Area (Figure 1-1). The Little Italy reference area is bound to the north by West

Lexington Street, to the east by South Ada Street, to the south by West Taylor Street, and to the

W0141.1A.00260

west by South Laflin Street.

2.2 <u>POTENTIAL INDUSTRIAL SOURCES OF HEAVY METAL SOIL</u> <u>CONTAMINATION</u>

From 2013-2014, EPA investigated present and historical entities that may have contributed to heavy metal contamination in soil in the Pilsen neighborhood. Investigation activities involved facility reconnaissance, including a visual inspection of the exterior and interior of the facility when possible, and interviews with facility personnel, local business representatives, and residents to the extent possible to determine current and historical ownership and operations at each facility. Based on the information available such as facility type, location, operational history, environmental compliance/characterization, remedial or removal reports; and wind data, EPA identified that Loewenthal Metal Corp. (Loewenthal), National Lead/Southern White Lead Works (NL), Century Smelting & Refining (Century), Midwest Generation Fisk Station (Fisk Station), and H. Kramer & Company (H. Kramer) were the most likely industrial large-scale contributors to lead contamination in soil at the Assessment Area. These facilities may have contributed through historical stack air emissions and/or fugitive/uncontrolled dust emissions which contained lead. An evaluation of these facilities is provided in Section 5 of this report.

3. ASSESSMENT AREA ACTIVITIES

In May 2013, July 2013, and August 2013, EPA and WESTON START conducted a removal site evaluation to determine the nature and extent of heavy metal contamination in soil from present and historical sources of heavy metal air emissions on the Assessment Area and to evaluate potential contributing sources. The soil sampling activities were conducted in accordance with the document entitled "Field Sampling Plan for the Pilsen Area Soil Site Assessment, Revision 2," dated April 30, 2013, and with EPA's "Superfund Lead-Contaminated Residential Sites Handbook" (EPA, 2003). In addition, all sampling was conducted in accordance with the Quality Assurance Project Plan for the Region 5 START III Contract, dated June 2006. From May 1 to 10, 2013. Lead was suspected to be the primary contaminant of concern (COC) in Assessment Area surface soil based on the previous site assessment work

Page 5 of 44

conducted in the railroad and alley and other reports (Subra Company, 2005; CRA, 2007;

WESTON START, 2014a).

Residential properties in the Harrison Park and Little Italy reference areas were selected to

provide reference locations by which results from the Assessment Area could be compared. To

fulfill these objectives, the following Assessment Area assessment activities were conducted:

• May 1-3, 7-10, 2013: Assessment Area residential property field soil sampling event.

• July 9-12 and 15, 2013: Assessment Area and Harrison Park residential property field soil

sampling event.

• August 12-16 2013: Assessment Area, Harrison Park, and Little Italy residential property

field soil sampling event.

Owners of individual residential properties gave EPA permission through signed voluntary

access agreements to collect soil samples from their properties. All soil sampling activities were

conducted in Level D personal protective equipment (PPE) in accordance with the approved site-

specific health and safety plan. Fresh sampling gloves were donned before sampling activities

began at each new location and for each sample to avoid cross-contamination. Non-disposable

equipment that could potentially cross-contaminate samples (e.g., hand augers) were

decontaminated between each sampling location using an alconox wash and a potable water

rinse.

At all residential properties, WESTON START collected soil aliquots using 2-, 3-, or 4-inch

stainless steel hand augers. Composite samples were placed into disposable polyethylene bags

and mixed. After mixing, samples were analyzed using EPA's Innov-X Alpha Series XRF

device. No on-site sieving of soil occurred. Samples were then transferred directly into

laboratory-provided glass sample jars and placed on ice. Any unused soil was returned to the

point from which it was collected. All sampling locations in residential locations were filled to

the surface with clean fill dirt, and then seeded with grass seed. Commercially available topsoil

was added to surface soil sampling locations to restore original grade as necessary. Additional

soil sampling activities specific to the May, July, and August 2013 field sampling events are

discussed in the following sections.

W0141.1A.00260

Page 6 of 44

Date: November 4, 2014

3.1 MAY 2013 RESIDENTIAL PROPERTY ASSESSMENT ACTIVITIES

During the May 2013 sampling event, EPA and WESTON START collected 90 soil samples (81

investigative and nine field duplicates) from 34 residential properties located within 5/8 mile and

downwind of the prevailing wind pathway at the H. Kramer property (**Table 3-1**, **Figure 3-1**).

For all residential properties with a total surface area of approximately 5,000 square feet (ft²) or

less, a two- to five-point composite sample was collected from 0-2 and 0-6 inches below ground

surface (bgs) from the front yard and/or backyard. The composites were equally spaced within

the respective portion of the yard, were outside of any drip zones, and away from influences of

any painted surfaces.

At St. Procopius field, which has a total surface area of greater than 5,000 ft² but less than 1 acre,

the property was divided into four quadrants of roughly equal surface area, and five-point

composite samples were collected from each quadrant at 0-2 and 0-6 inches bgs at equal spacing

and from the same depth interval. The composite samples were collected outside of any drip

zones and away from influences of any painted surfaces. The playground at St. Procopius was

sampled in the same manner as a residential property with a total surface area of approximately

 $5,000 \text{ ft}^2 \text{ or less.}$

If XRF screening showed that the 0- to 2-inch bgs composite sample was an order of magnitude

different in lead concentration from the 0- to 6-inch bgs composite sample, then both composites

were submitted for analytical laboratory analysis. If the two composite samples were within an

order of magnitude different, then only the 0- to 6-inch bgs composite sample was submitted for

analytical laboratory analysis.

Due to XRF uncertainty, two "replicate" soil samples were collected in residential yards where

XRF screening indicated surface soil lead contamination near the 2014 EPA Removal

Management Level (RML) for residential soil of 400 milligrams per kilogram (mg/kg). The EPA

recommends that residential soils do not exceed 400 mg/kg of lead. This concentration is based

on protecting children from exceeding the Center for Disease Control and Prevention (CDC)

W0141.1A.00260

Pilsen Soil Assessment Area: Residential (Redacted) Removal Site Evaluation

Page 7 of 44

Date: November 4, 2014

recommended blood lead level of 10 micrograms per deciliter (µg/dl) in blood. RMLs help

identify areas, contaminants, and conditions where a removal action may be appropriate.

Specifically, in residential yards where an XRF screening of a five-point residential yard

composite sample collected from a 0- to 6-inch bgs interval indicated a lead concentration

between 300 and 500 mg/kg, two additional 0- to 6-inch bgs five-point composite samples were

collected and submitted analytical laboratory analysis. These replicate samples provided EPA

with additional information to determine if soil in a residential yard contained lead above or

below the 2014 EPA RML for residential soil of 400 mg/kg.

An additional soil sample was collected in distinct garden areas. Garden soil samples were

composite samples consisting of two to five soil aliquots collected from 0-6 or 0-12 inches bgs.

The composites were equally spaced within garden areas, outside of the drip zone, and away

from influences of any painted surfaces.

A separate soil sample was collected where distinct drip zones were present. Drip zone soil

samples were either: (1) a grab sample, consisting of soil from 0-6 inches bgs collected beneath a

gutter downspout, or (2) a composite soil sample, consisting of up to five soil aliquots from 0- to

6-inches bgs collected from beneath house or shed walls lacking rain gutters.

Soil samples were submitted under chain of custody to STAT Analysis Corporation in Chicago,

IL, for at least one of the following analyses:

• Select total metals (antimony, copper, cadmium, chromium, mercury, lead, tin, and zinc).

• Lead, fine-grained fraction (grain size < 250 micrometers [μm]).

• *In vitro lead bioaccessibility.*

• Toxicity Characteristic Leaching Procedure (TCLP) lead.

pH.

• Total lead (replicate samples only).

Bioaccessibility is an *in vitro* measure of the *physiological solubility* of the metal that may be

available for absorption into the body (EPA, 2012). The in vitro bioaccessibility (IVBA) assay

provides a rapid and relatively inexpensive alternative to in vivo assays for predicting relative

bioavailability (RBA) of lead in soils and soil-like materials (EPA, 2012). The method is based

W0141.1A.00260

Page 8 of 44

on the concept that lead solubilization in gastrointestinal fluid is likely to be an important determinant of lead bioavailability *in vivo* (EPA, 2012). The method measures the extent of lead solubilization in an extraction solvent that resembles gastric fluid. The fraction of lead which solubilizes in an *in vitro* system is referred to as IVBA, which may then be used as an indicator of *in vivo* RBA (EPA, 2012). Measurements of IVBA using this assay have been shown to be a reliable predictor of *in vivo* RBA of lead in a wide range of soil types and lead phases from a variety of different sites (EPA 2007). Knowledge of lead bioavailability is important because the amount of lead that actually enters the blood and body tissues from an ingested medium depends on the physical-chemical properties of the lead and of the medium (EPA, 2012).

3.2 JULY 2013 RESIDENTIAL PROPERTY ASSESSMENT ACTIVITIES

In July 2013, EPA and WESTON START conducted a second field sampling event at the Assessment Area and a new field sampling event in the Harrison Park reference area. The July 2013 field sampling event was conducted in accordance with the document entitled "Field Sampling Plan for the Pilsen Area Soil Site Assessment, Revision 2, Amendment 1," dated July 5, 2013, and with EPA's "Superfund Lead-Contaminated Residential Sites Handbook" (EPA, 2003). The July 2013 phase of sampling included collecting samples at previously sampled residential properties within the Assessment Area at depths greater than 6 inches bgs; collecting samples at new residential locations within the Assessment Area to better delineate the impacts of aerial deposition of heavy metals from upwind industrial emitters; and collecting samples in a reference area, upwind from the H. Kramer and Fisk Station properties, for comparison purposes. Due to its proximity to the Assessment Area (0.25-1 mile) and the similarity of age of the majority of residential structures (as seen in Historical Sanborn Maps and through discussions with residence owners), EPA assumed there would be similarities in the origin of fill soil used to construct residential yards. The Harrison Park reference area was not suspected to have been impacted by H. Kramer due to the historical prevailing wind direction (Figure 2-2) but it is in the historical prevailing downwind direction of several historical industrial properties along the Chicago Sanitary and Ship Canal.

WESTON START collected 20 soil samples (18 investigative and two field duplicates) from 10 residential properties located within the Assessment Area and 26 soil samples (23 investigative

Page 9 of 44

Date: November 4, 2014

and three field duplicates) from 15 residential properties located within the Harrison Park

reference area (Table 3-1, Figure 3-1). Several soil samples collected from the Assessment Area

were from residential properties previously sampled during the May 2013 field event.

Field sampling techniques used during the July 2013 field sampling event were consistent with

the May 2013 field sampling event previously described; however, two- to five-point composite

samples were also collected from 6- to 12-, 12- to 18-, and 18- to 24-inch bgs depth intervals. In

addition, samples were collected from either the front yard or backyard, but not both. No garden,

drip zone, or replicate samples were collected.

At the previously sampled residential properties within the Assessment Area, if the soil matrix

varied significantly across the 6- to 24-inch bgs interval, then the depth interval was split

between matrices (6-12 and 12-24 inches bgs, or 6-18 and 18-24 inches bgs) and submitted for

analytical laboratory analysis. If there were no soil matrix differences between 6 and 24 inches

bgs, the entire 18 inches were composited and submitted for analytical laboratory analysis. No 0-

to 6-inch bgs composite samples were submitted from the previously sampled residential

properties within the Assessment Area because samples from these intervals were submitted

during the May 2013 sampling event.

At residential properties not previously sampled within the Assessment Area and the Harrison

Park reference area, the 0- to 6-inch bgs composite sample was submitted for analytical

laboratory analysis at all locations. At approximately 30% of the locations, a sample collected

below 6 inches bgs was submitted for analytical laboratory analysis based on the XRF lead

concentration screening value. Soil intervals from a range of concentrations were submitted for

analytical laboratory analysis in order to support EPA FIELDS in validating the data generated

by the XRF in a subsequent quality assurance analysis.

Soil samples were submitted under chain of custody to STAT Analysis Corporation in Chicago,

IL, for at least one of the following analyses:

• Select total metals (antimony, copper, cadmium, chromium, mercury, lead, tin, and zinc).

• Lead, fine-grained fraction (grain size < 250 μm).

W0141.1A.00260

3.3 AUGUST 2013 RESIDENTIAL PROPERTY ASSESSMENT ACTIVITIES

In August 2013, EPA and WESTON START conducted a third field sampling event in the

Assessment Area, a second field sampling event in the West Harrison reference area, and a new

field sampling event in the Little Italy reference area. The August 2013 field sampling event was

conducted in accordance with the document entitled "Field Sampling Plan for the Pilsen Area

Soil Site Assessment, Revision 2, Amendment 1," dated July 5, 2013, and EPA's "Superfund

Lead-Contaminated Residential Sites Handbook" (EPA, 2003). Data collected from this area

served as a reference of soil suspected to be less impacted by industrial sources, such as H.

Kramer and Fisk Station, due to an increased distance from these sources.

During the August 2013 field sampling event, WESTON START collected 19 soil samples (17

investigative and two field duplicates) from 13 residential properties located within the

Assessment Area, eight soil samples (seven investigative and one field duplicate) from four

residential properties located within the Harrison Park reference area, and 16 soil samples (14

investigative and two field duplicates) from 11 residential properties located within the Little

Italy reference area (**Table 3-1, Figure 3-2**).

Field sampling techniques were consistent with the July 2013 field sampling event previously

described. Soil samples were submitted under chain of custody to STAT Analysis Corporation in

Chicago, IL, for at least one of the following analyses:

• Select total metals (antimony, copper, cadmium, chromium, mercury, lead, tin, and zinc).

• Lead, fine-grained fraction (grain size < 250 µm).

4. RESULTS & ANALYSIS

4.1 ASSESSMENT AREA SAMPLING RESULTS

Total metal analytical results were compared to the 2014 EPA RMLs (hazard quotient [HQ] of 3)

for residential soil. Total metal results for Assessment Areas Res1, Res2, and Res3 are presented

on Tables 4-1, 4-2, and 4-3, respectively. Surface soil sampling results (not including garden,

drip zone, duplicate, or replicate samples) for cadmium, copper, lead, fine-grained lead, tin, and

W0141.1A.00260

Page 11 of 44

zinc from samples collected within the Assessment Areas Res1, Res2, and Res3 are presented in

Figures 4-1, 4-2, and 4-3, respectively. Lead was the only metal that exceeded the 2014 EPA

RMLs (HQ of 3) for residential soil in the Assessment Area. A summary of results by subarea is

described below.

4.1.1 Assessment Area Res1 Results

Total Metals

• Average Res1 surface soil total lead and fine-grained lead concentrations (0-6 inches bgs,

not including garden, drip zone, duplicate, or replicate samples) were 1,545 and 1,597

mg/kg, respectively (sample size [N] = 14). These average concentrations exceed the

EPA residential soil RML for lead of 400 mg/kg. Lead concentrations in surface soil

samples collected in Res1 (0-6 inches bgs, not including garden and drip zone samples)

ranged from 320 to 3,600 mg/kg. Fine-grained lead concentrations ranged from 600 to

2,700 mg/kg. The average zinc/lead ratio for surface soil samples collected in Res1 (not

including garden, drip zone, duplicate, or replicate samples) was 2.08.

Average Res1 subsurface soil total lead and fine grained lead concentrations (6-18, 6-21,

and 18-24, inches bgs, not including garden and duplicate samples) were 1,424 and 1,740

mg/kg, respectively (N=5). These average concentrations exceed the EPA residential soil

RML for lead of 400 mg/kg. Lead concentrations in subsurface soil samples collected in

Res1 (6-18, 6-21, and 18-24, inches bgs, not including garden and drip zone samples)

ranged from 250 to 2,500 mg/kg. Fine-grained lead concentrations ranged from 420 to

4,200 mg/kg. The average zinc/lead ratio for subsurface surface soil samples collected in

Res1 (not including garden, drip zone, duplicate, or replicate samples) was 1.93.

Average garden soil sampling results for total lead and fine grained lead were 1,359 and

1,441 mg/kg, respectively (N = 5). These average concentrations exceed the EPA

residential soil RML for lead of 400 mg/kg.

W0141.1A.00260

Page 12 of 44

• One drip zone sample was collected in Res1, PA-274-02(0-6)-050113. Lead and fine-

grained lead concentrations detected in this sample were 2,000 and 1,700 mg/kg,

respectively, which exceed the EPA residential soil RML for lead of 400 mg/kg.

TCLP Metals (Toxicity)

• No residential soil sample collected from the Assessment Area contained TCLP lead

concentrations above the TCLP lead regulatory limit of 5.0 milligrams per liter (mg/L).

Therefore, according to 40 Code of Federal Regulation (CFR) Part 261, Subpart C,

261.24 (b), no soil sample collected from the Assessment Area represents a material that

meets the definition of hazardous waste by virtue of the characteristic of toxicity.

In Vitro Lead Bioaccessibility

• In vitro lead bioaccessibility ranged from 55.6 to 95.4% in the seven samples collected

from the Assessment Area. These results indicate that 55.6 to 95.4% of lead in these

Assessment Area soil samples can enter the blood and body tissues if ingested.

4.1.2 Assessment Area Res2 Results

Total Metals

• Average Res2 surface soil total lead and fine grained lead concentrations (0-6 inches bgs,

not including garden, drip zone, duplicate, or replicate samples) were 1,054 and 1,244

mg/kg, respectively (N = 27). These average concentrations exceed the EPA residential

soil RML for lead of 400 mg/kg. Lead concentrations in surface soil samples collected in

Res2 (0-6 inches bgs, not including garden and drip zone samples) ranged from 58 to

3,200 mg/kg. Fine-grained lead concentrations of in surface soil samples collected in

Res2 (0-6 inches bgs, not including garden and drip zone samples) ranged from 77 to

3,500 mg/kg. The average zinc/lead ratio for surface soil samples collected in Res2 (not

including garden, drip zone, duplicate, or replicate samples) was 1.29.

• Average Res2 subsurface soil total lead and fine grained lead concentrations (6-12, 6-14,

6-24, and 12-24 inches bgs, not including garden, drip zone, duplicate, or replicate

W0141.1A.00260

Pilsen Soil Assessment Area: Residential (Redacted) Removal Site Evaluation Date: November 4, 2014

Page 13 of 44

samples) were 660 and 723 mg/kg, respectively (N = 6). These averages exceed the EPA

residential soil RML for lead of 400 mg/kg. Lead concentrations in subsurface soil

samples collected in Res2 (6-12, 6-14, 6-24, and 12-24 inches bgs, not including garden

and drip zone samples) ranged from 140 to 1,200 mg/kg. Fine-grained lead

concentrations in subsurface soil samples collected in Res2 (6-12, 6-14, 6-24, and 12-24

inches bgs, not including garden and drip zone samples) ranged from 220 to 990 mg/kg.

The average zinc/lead ratio for subsurface surface soil samples collected in Res2 (not

including garden, drip zone, duplicate, or replicate samples) was 0.99.

Average garden soil sampling results for total lead and fine grained lead were 930 and

830 mg/kg, respectively (N = 9). These averages exceed the EPA residential soil RML

for lead of 400 mg/kg.

Average drip zone sampling results for total lead and fine grained lead were 1,080 and

1,433 mg/kg, respectively (N = 3). These averages exceed the EPA residential soil RML

for lead of 400 mg/kg.

4.1.3 Assessment Area Res3 Results

Total Metals

Average Res3 surface soil total lead and fine grained lead concentrations (0-6 inches bgs,

not including garden, replicate, playground, or duplicate samples) were 648 and 747

mg/kg, respectively (N = 21). These averages exceed the EPA residential soil RML for

lead of 400 mg/kg. Lead in surface soil samples collected in the Assessment Area: Res3

(0-6 inches bgs, not including garden samples) ranged from 80 to 1,700 mg/kg. Fine-

grained lead ranged from 110 to 2,200 mg/kg. The average zinc/lead ratio for surface soil

samples collected in Res3 (not including garden, drip zone, duplicate, or replicate

samples) was 0.98.

Average Res3 subsurface soil total lead and fine grained lead concentrations (6-15, 6-18,

and 6-24 inches bgs, not including garden, replicate, or duplicate samples) were 591 and

610 mg/kg, respectively (N = 8). These averages exceed the EPA residential soil RML

W0141.1A.00260

Pilsen Soil Assessment Area: Residential (Redacted) Removal Site Evaluation Date: November 4, 2014

Page 14 of 44

for lead of 400 mg/kg. Lead concentrations in subsurface soil samples collected in Res3

(6-15, 6-18, and 6-24 inches bgs, not including garden samples) ranged from 140 to 1,800

mg/kg. Fine-grained lead ranged from 110 to 1,800 mg/kg. The average zinc/lead ratio

for subsurface surface soil samples collected in Res2 (not including garden, drip zone,

duplicate, or replicate samples) was 1.04.

• Average garden soil sampling results for total lead and fine grained lead (not including

duplicate samples) were 490 and 630 mg/kg, respectively (N = 3). These averages exceed

the EPA residential soil RML for lead of 400 mg/kg.

• One playground sample was collected in Res3, PA-469-05(0-6)-051013. Lead and fine-

grained lead concentrations detected in this sample were 340 and 330 mg/kg,

respectively, which do not exceed the EPA residential soil RML for lead of 400 mg/kg.

4.1.4 Harrison Park Reference Area Results

Total metal analytical results were compared to 2014 EPA RMLs (HQ of 3) for residential soil.

Lead was the only metal that exceeded the 2014 EPA RMLs (HQ of 3) for residential soil in the

Harrison Park reference area. Total metal results are presented on Table 4-4. Non-duplicate

surface soil sampling results for cadmium, copper, lead, fine-grained lead, tin, and zinc from

samples collected in Harrison Park reference area are presented in Figure 4-4. A summary of the

metal results exceeding screening levels is as follows:

• Average Harrison Park reference area surface soil total lead and fine-grained lead

concentrations (0-6 inches bgs, not including duplicate samples) were 1,525 and 1,604

mg/kg, respectively (N =21). These averages exceed the EPA residential soil RML for

lead of 400 mg/kg. Lead concentrations in surface soil samples collected in the Harrison

Park Reference Area (0-6 inches bgs) ranged from 270 to 3,700 mg/kg. Fine-grained lead

concentrations ranged from 450 to 3,600 mg/kg. The average zinc/lead ratio for surface

soil samples collected in the Harrison Park reference area (not including duplicate

samples) was 0.77.

W0141.1A.00260

Page 15 of 44

• Average Harrison Park reference area subsurface soil lead and fine-grained lead

concentrations (6-24 inches bgs, not including duplicate samples) were 1,390 and 1,620

mg/kg, respectively (N = 9). These averages exceed the EPA residential soil RML for lead

of 400 mg/kg. Concentrations of lead in subsurface soil samples collected in the Harrison

Park reference area (6-18, 6-24, and 18-24 inches bgs) ranged from 140 to 4,300 mg/kg.

Concentrations of fine-grained lead ranged from 170 to 5,500 mg/kg. The average

zinc/lead ratio for subsurface surface soil samples collected in the Harrison Park

reference area (not including duplicate samples) was 0.84.

4.1.5 Little Italy Reference Area Results

Total metal analytical results were compared to the 2014 EPA RMLs (HQ of 3) for residential

soil. Lead was the only metal that exceeded the 2014 EPA RMLs (HQ of 3) for residential soil in

the Little Area reference area. Total metal results are presented on Table 4-5. Non-duplicate

surface soil sampling results for cadmium, copper, lead, fine-grained lead, tin, and zinc from

samples collected in Harrison Park reference area are presented in Figure 4-5. A summary of the

metal results exceeding screening levels is a follows:

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Average Little Italy reference area surface soil total lead and fine-grained lead concentrations

(0-6 inches bgs, not including duplicate samples) were 249 and 335 mg/kg, respectively (N =

11). These averages do not exceed the EPA residential soil RML for lead of 400 mg/kg.

Concentrations of lead in surface soil samples collected in the Little Italy reference area (0-6

inches bgs) ranged from 66 to 760 mg/kg. Concentrations of fine-grained lead ranged from

66 to 1,300 mg/kg. The average zinc/lead ratio for surface soil samples collected in the Little

Italy reference area (not including duplicate samples) was 1.05.

• Average Little Italy reference area subsurface soil total lead and fine-grained lead

concentrations (6-18 and 6-24 inches bgs, not including duplicate samples) for total lead and

fine grained lead were 431 and 650 mg/kg (N =3). These averages exceed the EPA

residential soil RML for lead of 400 mg/kg. Concentrations of lead in subsurface soil

samples collected the Little Italy Reference Area (6-18 and 6-24 inches bgs) ranged from 92

to 930 mg/kg. Concentrations of fine-grained lead ranged from 150 to 1,400 mg/kg. The

W0141.1A.00260

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Page 16 of 44

average zinc/lead ratio for subsurface surface soil samples collected in the Little Italy reference area (not including duplicate samples) was 0.99.

4.2 ASSESSMENT AREA SOIL LITHOLOGY RESULTS

Soils on properties at the Assessment Area were variable. In general, soils at the Assessment Area consisted of sandy and gravelly silts and clays. Trace fill materials, including wood chips, and pieces of brick, plastic, and metal, were occasionally observed in Assessment Area soils at various depths. At one property, ID #274, trace slag was observed in a 0-6 inch bgs composite sample. Property ID #274 is located less than 500 feet (ft) from the H. Kramer stack (**Figure 3-1**). Slag is a solid-phase waste generated by secondary lead processing (EPA, 1995). At H. Kramer, slag is produced as a result of impurities in the melted scraps, is skimmed off molten metal alloy, collected, and then shipped to customers for further recycling. The source of the observed slag could not be determined in the field.

4.3 <u>CONTAMINANT OF CONCERN</u>

Lead was the only metal that exceeded the 2014 EPA RMLs (HQ of 3) for residential soil in the Assessment Area. Based on these soil sample results, lead is considered to be the primary COC for the Pilsen Soils Site.

5. EVALUATION OF POTENTIAL SOURCES OF LEAD CONTAMINATION AT THE ASSESSMENT AREA

The following subsections summarize WESTON START and EPA's evaluation regarding five potential industrial sources of lead that were identified above in Section 2 within or bordering the Assessment Area that may have contributed to lead contamination in residential soil in the Assessment Area.

5.1 H. KRAMER & COMPANY

H. Kramer is a 6.5-acre active secondary brass and bronze smelter located at 1345 West 21st Street, Chicago, Cook County, IL (**Figure 2-1**). H. Kramer primarily manufactures brass and bronze ingots and a portion of the facility's production capacity is devoted to lead-containing metal alloy. Brass is a copper alloy that contains zinc (5 to 45%) as the principal alloying W0141.1A.00260

Pilsen Soil Assessment Area: Residential (Redacted) Removal Site Evaluation Date: November 4, 2014

Page 17 of 44

element, as well as tin, iron, aluminum, nickel, silicon, and lead. Bronze is an alloy that consists

mainly of copper combined most often with tin, but sometimes with other elements, including

phosphorus, manganese, aluminum, silicon, and lead. Brass and bronze ingots made by H.

Kramer generally contain less than 10% lead but may contain as much as 25% lead (High

Leaded Tin Bronze [70-5-25])(H. Kramer, undated).

H. Kramer receives scrap metals from many sources and in various forms, including solids, wire,

borings, and grindings (Chicago Department of Environment [CDOE], 2005). H. Kramer sorts

scrap metals into grades of purity and then melts them down using three different types of

furnaces (gas-fired rotary furnaces, coreless electric induction furnaces, and electric induction

furnaces). Slag produced as a result of impurities from the melted scraps is then skimmed off the

molten metal alloy, collected, and then shipped to customers for further recycling. The molten

metal alloy is then poured into ingot molds, and water is poured on the hot ingots to cool them.

The cooling operation generates steam that is vented through a stack.

At H. Kramer, lead emissions are the result of the melting operation (CDOE, 2005). In general,

at secondary brass and bronze smelters, as the scrap is placed into a furnace and subjected to

intense heat to melt down the metal, some metal vaporizes and is emitted as particulate matter in

the form of dust and oxide fumes. Constituents of the fumes include zinc, lead, tin, copper,

cadmium, silicon, and carbon. As much as 98% of the particulate matter contained in furnace

stack gases may be zinc oxide and lead oxide depending on the composition of the alloy (Licht,

1973).

In May 2013, H. Kramer responded to an EPA Resource Conservation and Recovery Act

(RCRA) request for information regarding its zinc oxide baghouse dust. H. Kramer indicated the

zinc oxide baghouse dust is collected in Super Sack containers beneath each baghouse and stored

inside the Number Two Baghouse Building until sale and shipment to purchasers. H. Kramer

also provided analytical laboratory results of the zinc oxide material, which indicated the

following concentrations of metals: antimony (47 mg/kg); arsenic (38 mg/kg); barium (20

mg/kg); cadmium (2,200 mg/kg); chromium (150 (mg/kg); copper (17,000 mg/kg); lead (61,000

W0141.1A.00260

Page 18 of 44

mg/kg); mercury (0.98 mg/kg); selenium (96 mg/kg); silver (37 mg/kg); and zinc (640,000

mg/kg).

The particle size of the zinc and other oxide fumes are in the range of 0.03 to 0.5 micrometer

(µm) and requires the use of extremely efficient air pollution control equipment (U.S.

Department of Health, Education, and Welfare, 1969). In 2005, emissions generated at H.

Kramer from rotary furnaces 1 and 2 were controlled by Baghouses 2 and 6 (CDOE, 2005).

Fugitive emissions from these furnaces were captured and routed to Baghouses 1 and 5. The

emissions from the coreless furnaces were controlled by Baghouse 4. The emissions from the

channel furnaces were controlled by a Venturi scrubber and a mist eliminator.

EPA Toxic Release Inventory System Information

H. Kramer is listed in the EPA Toxic Release Inventory (TRI) System. TRI facilities are legally

required to report to EPA and EPA has tracked both fugitive and stack emissions from H.

Kramer from 1987 to 2013. Fugitive emissions are emissions that could not reasonably pass

through a stack, chimney, vent, or other functionally equivalent opening, and often occur during

leaks from pressurized equipment or during material transfer. In H. Kramer's case, particulate

matter emissions are estimated based on the testing of the baghouse contents (Illinois

Environmental Protection Agency [IEPA], 2005). Then, lead and other metal emissions are

calculated as a percentage of the particulate matter emissions. These calculations are based on

EPA emission factors. H. Kramer reports the TRI results to EPA. The methodology used to

estimate lead emissions from H. Kramer is conservative, which means it would tend to

overestimate the amount of lead emitted.

From 1987, approximately 54,366 pounds (lb) of lead, 832,567 lb of zinc, and 6,782 lb of copper

were estimated and reported to have been released via fugitive and stack emissions from H.

Kramer (EPA, 2013a). Emissions of tin, a component of bronze, are not required to be reported

to the EPA TRI.

Pre-2005 H. Kramer Inspection and Violation History

H. Kramer currently has a "Lifetime Operating Permit" from IEPA (IEPA, 2005). This lifetime

W0141.1A.00260

Page 19 of 44

permit does not require renewal or reapplication unless requested by IEPA. The permit

establishes hourly and annual emissions limits for particulate matter, nitrogen oxides, and carbon

monoxide. IEPA also enforces opacity standards (which measure the darkness of the emissions)

to capture potential short-term, heavy releases of particulate matter emissions. High opacity

levels can be an indicator that the facility is having excess emissions and/or that its pollution

controls are not working properly.

H. Kramer also holds installation permits and a certificate of operation from CDOE. CDOE's

permitting scheme is focused on preventing environmental nuisances such as smoke, odors, and

particulate emissions and ensuring equipment that creates or controls emissions is properly

installed and documented.

Between 1998 and May 31, 2005, CDOE received a total of 51 complaints against H. Kramer. In

this time period, CDOE conducted 126 inspections (CDOE, 2005). From 1991 to 2005, CDOE

issued 14 Notice of Violations (citations) to H. Kramer. These citations were primarily for

atmospheric pollution and general nuisance (Municipal Code §7-28-080, and §11-4-630). H.

Kramer was found liable on 13 counts of these citations. During this time period, CDOE referred

H. Kramer to the EPA twice. These citations prompted major infrastructure changes. Some

notable violations outlined by CDOE (2005) include the following:

• On September 19, 1990, EPA issued a Finding of Violation to H. Kramer. EPA found that the roof vents above its rotary furnace on the west side of the facility were a source

of visible particulate emissions. H. Kramer violated the opacity limits in its IEPA air

permit.

• On August 27, 1996, EPA issued a Notice of Violation, alleging that H. Kramer violated

the opacity limits set forth in the Illinois Pollution Control Board Regulations.

In 1997, EPA issued an order requiring H. Kramer to initiate the following initiatives:

• Implement managerial controls to reduce fugitive emissions.

• Implement institutional controls to reduce the fugitive emissions from emissions sources

that are routed to Baghouse 5.

• Reconstruct Baghouse 6.

• Increase the capture efficiency of the pour hood of Rotary Furnace 2 by enlarging it and

if possible, positioning it closer to the pouring area.

• Complete a survey of duct work disturbances and leaks and complete repairs.

• Develop a maintenance schedule, based on the current predictive maintenance program.

W0141.1A.00260

Page 20 of 44

Date: November 4, 2014

In 1999, CDOE identified that H. Kramer's fugitive emissions were the result of aged

equipment, leaking ducts, and a leaking roof. H. Kramer addressed these fugitive emissions by

replacing aged furnaces and replacing or repairing most of its roof. H. Kramer also installed a

mist eliminator to control the fugitive emissions. New baghouses were also installed, and the

leaking ducts were replaced or repaired.

Pilsen Environmental Rights & Reform Organization Surface Soil Investigation

In March 2005, the Pilsen Environmental Rights & Reform Organization (PERRO) collected 12

surface soil samples in the Assessment Area around the vicinity of H. Kramer (Subra Company,

2005). Soil samples were analyzed by STAT Analysis Corporation, Chicago, IL. Lead was

detected in soil samples collected from eight locations above the 2014 EPA RML for residential

soil of 400 mg/kg. Lead concentrations ranged from 440 to 37,000 mg/kg. Copper was detected

in one soil sample above the 2014 EPA residential soil RML (HQ of 3) for residential soil of

9,300 mg/kg, with a concentration of 14,000 mg/kg. Zinc was detected in one soil sample above

the 2014 EPA RML (HQ of 3) for residential soil of 70,000 mg/kg, with a concentration of

100,000 mg/kg.

H. Kramer Enrollment in the IEPA SRP

In June 2005, the IEPA Site Assessment Unit (SAU) identified heavy metal contamination,

particularly lead, on the H. Kramer property and in the nearby vicinity. Lead concentrations in 15

of the 17 samples collected by the SAU exceeded 1,000 mg/kg. In September 2005, H. Kramer

entered the IEPA SRP.

Conestoga-Rovers & Associates CRA) documented soil sampling activities conducted at H.

Kramer in 2005 in its "Updated Focused Site Investigation Report" for H. Kramer (CRA, 2007).

Lead concentrations in 15 surface soil (0-6 inches bgs) samples collected on the H. Kramer

property averaged 3,168 mg/kg. The average zinc/lead ratio of these samples was 3.6.

Cleanup action was implemented via in situ treatment or excavation in areas where lead or

cadmium exceeded the TCLP concentrations set forth in 40 CFR Part 261, Subpart C, 261.24 (b),

thereby representing materials that meet the definition of hazardous waste by virtue of the

W0141.1A.00260

Page 21 of 44

characteristic of toxicity. On September 7, 2005, approximately 5 to 7 cubic yards (yd³) of soil

were removed from an area measuring 22 ft by 10 ft, and approximately 0.75 ft deep. The

excavation area was then backfilled with clean, imported gravel. In addition, a small amount of

soil located on top of the sidewalk near the northeastern corner of the H. Kramer property was

removed.

In the fall of 2011, in situ stabilization of shallow soils was conducted where TCLP lead

concentrations exceeded levels set forth in 40 CFR Part 261, Subpart C, 261.24 (b). A total of

2,769 yd³ of impacted soils were stabilized in treatment cells with a mixture of kiln dust and

phosphorus. Confirmation samples of the treated soils were collected at a rate of one sample per

250 yd³. All samples confirmed that stabilization was achieved.

In December 2011 and March 2012, H. Kramer submitted to IEPA a Remedial Action

Completion Report and an Addendum to the Remedial Action Completion Report, respectively.

On March 29, 2012, IEPA granted H. Kramer a No Further Remediation (NFR) Letter,

signifying a release from further responsibilities pursuant to Section 58.10 of the Illinois

Environmental Protection Act (415 ILCS 5/1 et seq.). Requirements outlined in the NFR

included, but were not limited to, the following: (1) the remediation site should be restricted to

industrial/commercial land use; (2) a safety plan should be developed to address possible worker

exposure in the event that any future excavation and construction activities may occur within the

contaminated soil that exists beneath the engineered barriers; (3) an asphalt barrier must remain

over the contaminated soils, and must be properly maintained to inhibit inhalation and ingestion

of the contaminated media; and (4) a concrete cap barrier must remain over the contaminated

soils, and must be properly maintained as an engineered barrier to inhibit inhalation and

ingestion of the contaminated soil.

Pilsen IEPA Air Monitoring Study

In January 2010, IEPA placed an air monitoring station on the roof of Perez Elementary School

to sample ambient air concentrations of lead in the area. Air samples at the Perez monitor were

collected once every 6 days. In 2010, lead was detected in 11 of approximately 60 samples at

concentrations above the National Ambient Air Quality Standard (NAAQS) of 0.15 microgram

W0141.1A.00260

Page 22 of 44

per cubic meter (µg/m³), averaged over 3 months. IEPA installed a second air monitoring station at Juarez to the west of H. Kramer and Perez. According to IEPA, results from the second air monitoring station indicated that H. Kramer was the primary contributor to the elevated ambient air lead levels in the area. As a result, IEPA requested that the Illinois Attorney General initiate legal action against H. Kramer relative to its contribution to a violation of the lead NAAQS. EPA addressed this issue in a 2011 enforcement action (see following paragraphs).

National Enforcement Investigations Center Pilsen Investigations

In March 2011, EPA Region 5 requested EPA's National Enforcement Investigations Center (NEIC) to examine particulate matter from H. Kramer and Fisk Station, and total suspended particulate (TSP) matter collected in ambient air on glass fiber filters from area air monitoring stations, to determine if material from either facility was present on the TSP filters. As previously described, in January 2010 and March 2011, IEPA began operating source-oriented TSP air monitoring stations at Perez and Juarez, respectively.

On August 21, 2011, NEIC submitted a report to EPA Region 5 entitled "Characterization of Lead-Bearing Particulate Matter," presenting analytical results of filters containing the highest and lowest concentrations of lead collected at the Perez air monitoring site from January 2010 to January 2011, as well as baghouse dust samples collected at H. Kramer (EPA NEIC, 2011). Analytical results indicated cadmium, copper, tin, and zinc were co-contaminants of the leadbearing particulate matter collected on the TSP filters. These co-contaminants were metals used in alloys produced at H. Kramer and were also found in similar proportions in H. Kramer baghouse dust samples. Lead-bearing, μm-sized (1–10 μm) aggregates of zinc-oxide crystallites were common in ambient air in the Pilsen neighborhood on at least 6 days in 2010, and were similar to the predominant baghouse dust particles from H. Kramer. The report concluded that H. Kramer's furnaces were likely the primary source of lead-bearing, airborne particulate matter in the Pilsen neighborhood, based on the location of its facility, wind direction, and the analytical results of TSP filters and baghouse dust from its facility. However, Fisk Station could not be excluded as a possible contributing source of lead contamination at the Perez air monitoring site because particulate matter similar to coal fly ash was observed on the filters collected from Perez (for more information, refer to EPA NEIC, 2011).

On August 24, 2012, NEIC submitted a second report to EPA Region 5 entitled "Additional Characterization of Lead-Bearing Particulate Matter," presenting additional analytical results of lead-bearing particulate matter on TSP filters from the Juarez and Perez air monitoring stations and in coal and fly ash collected from Fisk Station and the Midwest Generation Crawford Station (Crawford Station) coal-fired power plant, in addition to any contribution from H. Kramer. In total, nine TSP filter samples collected at the Juarez air monitoring station and 32 TSP filter samples collected at the Perez air monitoring station were selected for analysis, along with baghouse dust samples from H. Kramer and coal and fly ash samples from both the Fisk and Crawford Stations. Relative elemental abundances were determined by laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS). Coal and fly ash from Crawford Station and TSP filters collected at Perez and Juarez air monitoring stations were analyzed by scanning electron microscopy with energy dispersive spectrometry (SEM/EDS) to characterize individual particles for elemental composition, morphology, and size. Analytical results of TSP filters were compared against each other and with facility sample results. The three main findings from these analyses are summarized as follows:

- 1) H. Kramer was indicated as the major contributor of airborne lead-bearing particulate matter in the Pilsen neighborhood, both during and outside the NAAQS exceedance period of October 2010 to February 2011.
- 2) Spherical Calcium-Aluminum-Silicon-oxide particles and correlations of rare earth elements on TSP filters collected at Perez and Juarez were consistent with coal fly ash. Fisk Station was the coal-generated power plant located closest to the air monitoring sites. The next closest power plant, Crawford Station, was approximately seven times farther away. No other likely sources of spherical Calcium-Aluminum-Silicon-oxide particles were identified in the surrounding area. Furthermore, spherical Ca-Al-Si-oxide particles were the most common on TSP filters collected during the 24-hour collection periods when the predominant wind direction put Fisk Station upwind of the collection site.
- 3) Fisk Station contributed insignificant quantities of lead-bearing particulate matter relative to H. Kramer during (and outside) the NAAQS exceedance period of October 2010 to February 2011.

For details supporting these conclusions, refer to EPA NEIC (2012).

In 2013, NEIC submitted five H. Kramer baghouse samples collected by the EPA Air and Radiation Division to STAT Analysis Corporation in Chicago, IL. Baghouse samples were

Page 24 of 44

analyzed for total metals. These results are presented on **Table 5-1** and are summarized as follows:

- Antimony was detected in concentrations ranging from 49 to 180 mg/kg.
- Cadmium was detected in concentrations ranging from 500 to 1,500 mg/kg.
- Chromium was detected in concentrations ranging from 44 to 92 mg/kg. Chromium was not detected in baghouse sample BH-5 N105006-07 Split B above the reporting limit of 18 mg/kg.
- Copper detections ranged from 12,000 to 62,000 mg/kg. Copper was not detected in baghouse sample BH-5 N105006-07 Split B above the reporting limit of 4,400 mg/kg.
- Lead was detected in concentrations ranging from 12,000 to 51,000 mg/kg.
- Mercury was detected in concentrations ranging from 0.52 to 5.2 mg/kg.
- Tin was detected in concentrations ranging from 5,100 to 11,000 mg/kg.
- Zinc was detected in concentrations ranging from 400,000 to 650,000 mg/kg.
- The mean zinc/lead ratio was 22.85.

H. Kramer 2011 Litigation and Emission Control Implementation

In 2011, the United States brought three claims against H. Kramer. First, the U.S. alleged that H. Kramer violated the Illinois State Implementation Plan by causing or allowing the emission of lead into the air to cause air pollution and/or to prevent the attainment or maintenance of the revised NAAQS for lead. Second, the U.S. alleged that H. Kramer failed to maintain and operate the rotary furnaces at the facility in a manner consistent with good air pollution control practice, as required by the Standards of Performance for New Stationary Sources. Third, the U.S. alleged that H. Kramer failed to operate and maintain all furnace melting operations in a manner consistent with good air pollution control practices as required by the National Emissions Standards for Hazardous Air Pollutants.

Negotiations between EPA, IEPA, the Attorney General's Office, Department of Justice (DOJ), and H. Kramer resulted in an Agreed Preliminary Injunction Order being filed in state court on September 2, 2011. Pursuant to the order, H. Kramer made significant repairs to the facility, including pollution control upgrades, cleanup, and paving of the facility's yard, and reduction in the production of two lead alloys. A final Consent Decree was filed in federal court and executed

Page 25 of 44

on March 28, 2013. More specifically, the decree required installation and operation of two new baghouses to better control emissions from the rotary furnaces located in the south foundry building. A construction permit was issued in January 2012 for H. Kramer to install the two new baghouses.

EPA Fields Team Statistical Analysis of Cadmium, Copper, Lead, Tin and Zinc Found Soil at and near the H. Kramer facility

EPA FIELDS conducted four statistical analyses to investigate the similarities and differences between concentrations of cadmium, copper, lead, tin, and zinc in soil from residential properties in the Assessment Area, on and adjacent to the H. Kramer property, the Little Italy and West Harrison References Areas, and the City of Chicago background (Appendix B). EPA FIELDS used surface soil data collected by WESTON START and EPA to represent soil from the Assessment Area, the Little Italy and West Harrison References Areas, and the immediate vicinity of H. Kramer. Additional data used in the EPA FIELDS analyses included surface soil data collected from the H. Kramer property and the United States Geological Survey (USGS) City of Chicago background dataset (USGS, 2003). The on-site H. Kramer data were obtained from CRA's "Updated Focused Site Investigation Report" (CRA, 2007). The City of Chicago background dataset was obtained from a USGS report titled "Concentrations of Polynuclear Aromatic Hydrocarbons and Inorganic Constituents in Ambient Surface Soils, Chicago, Illinois." In June 2001 and January 2002, the USGS, in cooperation with CDOE, collected soil samples from 57 areas near residential, commercial, and industrial land use areas to assess the concentration of metals and polynuclear aromatic hydrocarbons (PAHs) in ambient surface soils within the City of Chicago. Ambient soils were defined as those soils whose chemical composition is affected by ubiquitous natural and anthropogenic processes rather than the sitespecific disposal of waste materials. Soil samples were collected from the upper 6 inches of the soil horizon (from 0 to 6 inches in an undisturbed soil horizon or from the upper 6 inches of a soil horizon where it may be covered by gravel) using a dedicated stainless steel spoon or trowel.

The WESTON and EPA dataset was split into seven groups based on geographical location: Railroad, Alley, Res1, Res2, Res3, Little Italy, and West (Harrison Park). The Railroad and Alley data groups correspond to surface soil data from the railroad spur and alley adjacent to H.

Page 26 of 44

Kramer collected by WESTON START and EPA in December 2012 and May 2014. The Res1,

Res2, and Res3 data groups correspond to surface soil data collected from the Assessment Area

Res1, Res2, and Res3 subareas. The Little Italy and West data groups correspond to surface soil

data from the Little Italy and West Harrison reference areas, respectively, collected by WESTON

START and EPA in July and August 2014. Figure 1 in Appendix B presents the sampling

locations from each of the WESTON START and EPA surface soil data groups as well as the

on-site H. Kramer data from CRA discussed above. Only the samples collected from the 0- to 6-

inch bgs interval were used in these analyses. Samples collected in gardens and drip zones were

not used due to the potential for garden soils to be amended, mixed, and/or imported, and the

potential for drip zone soils to contain lead from lead-based paint. In addition, no duplicate or

replicate samples were used from any dataset.

Basic Statistics

EPA FIELDS calculated the mean, median, and standard deviation of each of the five metals in

Res1, Res2, and Res3. Mean and median zinc, lead, copper, tin, and cadmium concentrations

were highest in Res1, second highest in Res2, and the lowest in Res3, showing the

concentrations of these metals declines with increased distance in the predominantly downwind

direction from H. Kramer. Mean antimony concentrations were slightly higher in Res1 than in

Res2 and Res3, but median antimony concentrations were slightly less in Res1 than in Res2 and

Res3. It should be noted that a test for statistical significance was not conducted as part of these

basic statistics. See Figure 4 in **Appendix B** for the full basic statistics output.

Multiple Comparisons

EPA FIELDS used SAS® statistical software to compare cadmium, copper, lead, and zinc

analytical laboratory concentrations between the nine datasets (Railroad, Alley, Res1, Res2,

Res3, Little Italy, West, USGS [2003], and H. Kramer On-Site [CRA, 2007]) through a statistical

procedure called an analysis of variance (ANOVA). Tin was not analyzed in these comparisons

because the on-site H. Kramer data (CRA, 2007) did not contain concentration values for tin.

EPA FIELDS performed non-parametric ANOVA analyses using ranked data because metal

concentrations were not normally distributed (as shown by the Shapiro-Wilk test for normality).

W0141.1A.00260

Page 27 of 44

ANOVA analyses were performed to test the null hypothesis that the mean cadmium, copper,

lead, or zinc concentration was not statistically different between each dataset. If the hypothesis

was rejected through the ANOVA analysis (i.e., if a mean concentration of a certain metal was

statistically different between all the datasets), a multiple comparison procedure called a Least

Squares Means Tukey-Kramer Multiple Comparisons test was performed to determine which

datasets were different. The Least Squares Means Tukey-Kramer Multiple Comparisons test was

selected because it accommodates unequal sample sizes and is the most robust test for pair-wise

comparisons.

There was a significant difference between the nine datasets for all metals (p < 0.05). A visual

representation of the multiple comparisons for each metal is presented in Figure 6 in **Appendix**

B. Key findings from the ANOVA and Least Squares Means Tukey-Kramer Multiple

Comparisons tests include the following:

Cadmium

• There was no significant difference between the mean of ranked cadmium values in the

Railroad, Alley, Res1, and West datasets.

• There was no significant difference between the mean of ranked cadmium values in the

Alley, Res1, West, H. Kramer On-Site (CRA, 2007), and Res2 datasets.

• The mean of ranked cadmium values in the Railroad, Alley, Res1, and West datasets was

significantly higher than the USGS (2003), Res3, and Little Italy datasets.

Copper

• There was no significant difference between the mean of ranked copper values in the

Railroad, Alley, H. Kramer On-Site (CRA, 2007), and Res1 datasets.

• The mean of ranked copper values in the Railroad, Alley, H. Kramer On-Site (CRA, 2007), Res1, Res2, and West datasets was significantly higher than the Res3, USGS

(2003), and Little Italy datasets.

Lead

• There was no significant difference between the mean of ranked lead values in the

Railroad, Alley, West, Res1, H. Kramer On-Site (CRA, 2007), and Res2 datasets.

W0141.1A.00260

• The mean of ranked lead values in the Railroad, Alley, West, Res1, H. Kramer On-Site (CRA, 2007), and Res2 datasets was significantly higher than the USGS (2003), and Little Italy datasets.

Zinc

- There was no significant difference between the mean of ranked zinc values in the Railroad, Alley, Res1, and H. Kramer On-Site (CRA, 2007) datasets.
- The mean of ranked zinc values in the Railroad, Alley, Res1, H. Kramer On-Site (CRA, 2007), Res2, and West datasets was significantly higher than the Res3, USGS (2003), and Little Italy datasets.

Confidence Limits

EPA FIELDS used SAS® statistical software to calculate 95% confidence limits for the median ratio of zinc/lead in the nine datasets (Railroad, Alley, Res1, Res2, Res3, Little Italy, West, USGS [2003], and H. Kramer on-site [CRA, 2007]). A 95% confidence limit "means that if you took repeated random samples from a population and calculated the mean [or median] and confidence limits for each sample, the confidence interval for 95% of your samples would include the parametric mean [or median]" (McDonald, 2009). Zinc was hypothesized to have been deposited in higher quantities relative to lead within the southwest region of the Assessment Area because: (1) H. Kramer has released an estimated and reported 832,567 lb of zinc via fugitive and stack emissions since 1987 (EPA, 2013a); (2) five samples of H. Kramer's zinc oxide dust contained an average of 640,000 mg/kg zinc and a zinc/lead ratio of 22.85 (see **Table 2-1**); and (3) the average zinc/lead ratio of surface soil samples collected on H. Kramer property was 3.6 (CRA, 2007), which is more than double the City of Chicago background of 1.66 (USGS, 2003).

The 95% confidence limits for the median zinc/lead ratios for the soils on and adjacent to the H. Kramer property (H. Kramer On-Site [CRA, 2007]), Alley, Railroad, and Res1) overlap and are therefore not significantly different (see Figure 7 in **Appendix B**). The 95% confidence intervals of datasets corresponding to areas not adjacent to H. Kramer (Res2, Res3, Little Italy, and USGS [2003]) do not overlap with H. Kramer on-site [CRA, 2007]), Alley, and Railroad, but do overlap with Res1, suggesting a diminishing zinc/lead ratio in surface soils with increasing distance from H. Kramer. The 95% confidence interval on the median zinc/lead ratio for the West dataset was W0141.1A.00260

Page 29 of 44

the lowest and only overlapped with Res3 and Little Italy. This low 95% confidence interval may

be attributed to high lead concentrations relative to zinc levels observed in the West dataset,

potentially derived from lead emitters upwind (southwest) of H. Kramer.

Regression with Distance

EPA FIELDS used SAS® statistical software to create simple linear regression models to predict

concentrations of cadmium, copper, lead, tin, and zinc as a function of distance from the H.

Kramer property. The formula of a simple linear regression is: y = bx + a. The "y" is the

dependent variable, or the value the model predicts (cadmium, copper, lead, tin, and zinc

concentrations); "b" is the slope of the regression equation; "x" is the value of the independent

variable (distance from the H. Kramer property); and "a" is the y-intercept. A simple linear

regression equation describes the relationship between the dependent variable (y) and the

independent variable (x).

The EPA FIELDS regression analysis also included a statistical test to compute a probability

called a p-value for the coefficient associated with the independent variable. The null hypothesis

of each regression analysis is that the value of the coefficient associated with the independent

variable, the slope, is not significantly different from zero. In other words, the distance from the

H. Kramer property does not contribute to explaining the variability of the dependent variable

(cadmium, copper, lead, tin, or zinc concentrations). Small p-values reflect small probabilities,

and suggest that the independent variable (distance from the H. Kramer property) is indeed

important to the model, and whose coefficient has a value significantly different from zero. The

null hypothesis is rejected when the p-value is less than 0.05. Such a result indicates that the

observed result would be highly unlikely (< 5% chance) under the null hypothesis.

EPA FIELDS also calculated a coefficient of determination (denoted by R²) for each regression.

The coefficient of determination is the proportion of the variance in the dependent variable

(cadmium, copper, lead, tin, and zinc concentrations) that is explained by the regression model.

Note that the R² value does not indicate whether a regression model is adequate as numerous

variables in addition to distance from the H. Kramer property are expected to explain cadmium,

copper, lead, tin, or zinc concentrations, including soil lithology and proximity to other

W0141.1A.00260

Pilsen Soil Assessment Area: Residential (Redacted) Removal Site Evaluation Date: November 4, 2014

Page 30 of 44

contaminant sources.

For each contaminant, EPA performed regression diagnostics to check for the following

violations of regression assumptions:

No extreme residuals.

• Residuals are normally distributed.

• Residuals are homoscedastic.

Residuals are defined as the difference between the observed value of the dependent variable (y)

and the predicted value (\hat{y}) . Each data point has one residual and both the sum and the mean of

the residuals are equal to zero. Residual values are considered extreme if they had a studentized

residual value greater than 2.5. A studentized residual is the quotient resulting from the division

of a residual by an estimate of its standard deviation. After developing a regression model with a

full dataset, EPA FIELDS removed any values with a studentized residual value greater than 2.5,

and then developed a new regression model with the new dataset. Using this technique, all

extreme residuals were removed in the formulation of the regression models. The normality of

the residuals was tested using the Shapiro-Wilk test with the null hypothesis that the residuals are

from a normal distribution. Normal distribution can be defined as a range of values with most

observations in the middle, or a bell-shaped curve showing a symmetrical distribution about the

mean. The homoscedasticity of the residuals was tested using the White test with the null

hypothesis that the residuals are homoscedastic. Homoscedasticity can be defined as the property

of having equal statistical variances.

EPA FIELDS first developed regressions models using untransformed data, and then used

natural log transformations to help meet the assumptions of the regressions. The regression of

concentrations of each metal with distance from H. Kramer was statistically significant, meaning

that metal concentrations significantly decreased with increasing distance from H. Kramer. See

Figures 8 through 12 in Appendix B for graphical and statistical outputs. A summary of the

simple linear regression models is presented as follows:

• Cadmium: LN(Cd concentration) = (-0.55)(LN[distance from H. Kramer]) + 5.47 (p<0.0001).

• Copper: LN(Cu concentration) = (-1.01)(LN[distance from H. Kramer]) + 12.55 (p<0.0001).

• Lead: LN(Pb concentration) = (-0.49)(LN[distance from H. Kramer]) + 10.31 (p<0.0001).

W0141.1A.00260

- Tin: LN(Sn concentration) = (-0.67)(LN[distance from H. Kramer]) + 8.42 (p<0.0001).
- Zinc: LN(Zn concentration) = (-0.86)(LN[distance from H. Kramer]) + 13.2 (p<0.0001).

The slope for each of these regression equations was negative, indicating a decrease in metal concentrations with distance from H. Kramer. Because these metal concentrations do not increase with distance from H. Kramer and toward other potential sources, such as NL (located 0.65 mile northeast of H. Kramer) and Loewenthal (located 0.5 mile east-northeast of H. Kramer), these other sources may not have contributed as significantly to cadmium, copper, lead, tin, and zinc concentrations in residential soil as H. Kramer.

Overall, the EPA Fields Team Statistical Analysis of Cadmium, Copper, Lead, Tin, and Zinc found at and near the H. Kramer facility indicates that H. Kramer is a significant contributor for elevated lead in residential surface soil in the RR/Alley, Res1 and Res2. However, the analyses could not conclude that there was lead contribution from H. Kramer in residential surface soils in Res3. Furthermore, Res3 surface soil lead concentrations indicate other industrial sources. Finally, the analysis indicated no apparent lead contribution in surface soil, from H. Kramer, in Harrison Park.

5.2 <u>LOEWENTHAL METALS CORPORATION</u>

The Loewenthal property is located adjacent to the southeast region of the Assessment Area, within Res3, at 947 West Cullerton Street in Chicago, IL (**Figure 2-1**). Loewenthal is located 1,250 feet in the predominantly downwind direction from the western boundary of Res2. In the 1940 Standard Metal Directory, Loewenthal is listed as an aluminum, antimonial lead, and zinc smelter as well as a babbitt metal and solder manufacturer, and an ingot metal and scrap metal dealer. Loewenthal is also listed in the 1948-49 Standard Metal Directory as an aluminum and battery lead smelter, scrap iron and metal dealer, and importer and exporter of scrap metal. The exact date when the smelter ceased operations is unknown.

In November 2012, EPA, EPA FIELDS, and WESTON START conducted a removal assessment at the Loewenthal property (WESTON, 2013). Lead was detected above the 2014 EPA RML for industrial soil of 800 mg/kg in 17 of 20 total soil samples collected at various depths (0-6, 0-10, 6-16, 12-23, and 24-36 inches bgs) at 11 sampling locations on the W0141.1A.00260

Page 32 of 44

Loewenthal property. The mean and median zinc/lead ratio (duplicate samples excluded) of these

soil samples was 2.83 and 1.24, respectively. From June 2013 to September 2013, EPA

conducted and completed a removal action at the Loewenthal property.

In June 2013, BNSF collected seven surface soil samples (0-1 ft bgs) along a BNSF railroad

right-of-way 99 to 330 ft south of the Loewenthal property, which is in the predominantly

crosswind direction of Loewenthal. WESTON START spilt the samples with BNSF and had the

samples analyzed for total metals by STAT Analysis Corporation in Chicago, IL. All seven

samples contained lead above the 2014 EPA RML for residential soil of 400 mg/kg. Six of seven

samples contained lead above the 2014 EPA RML for industrial soil of 800 mg/kg. The average

zinc/lead ratio (no duplicates collected) of these soil samples was 1.27, which is less than the

City of Chicago background of 1.66 (USGS, 2003), and the average for surface soil samples

collected in Res1 and Res2 of 2.08 and 1.29, respectively.

WESTON START collected two surface soil samples at residential properties within 0.15 mile

of the Loewenthal property: PA-465-01(0-6)-051913 and PA-508-01(0-6)-081513 (**Figure 3-1**).

These samples were collected in the predominantly crosswind direction of Loewenthal. Total

lead concentrations of these three samples were 370 and 580 mg/kg, respectively. The average

zinc/lead ratio of these three samples was 0.81, which is less than the City of Chicago

background of 1.66 (USGS, 2003), and the average for surface soil samples collected in Res1

and Res2 of 2.08 and 1.29, respectively.

Loewenthal is not suspected to be the primary contributor to elevated lead contamination in

surface soils in Res1 and Res2 based on the aforementioned zinc/lead ratio analysis and

Loewenthal's location of at least 1,250 feet in the predominantly downwind direction from the

western boundary of Res2. However, a statistical analysis focusing on Loewenthal or an NEIC

study of source samples from Loewenthal were not conducted. Therefore, based on the

information available, Loewenthal cannot be ruled out as a contributor to lead contamination in

surface soils in the Res1, Res2, and Res3 residential areas at this time.

W0141.1A.00260

Page 33 of 44

5.3 NATIONAL LEAD/SOUTHERN WHITE LEAD WORKS

The NL property is located adjacent to the northeast boundary of Res3 at 900 West 18th Street,

Chicago, IL (Figure 2-1). NL is located approximately 1,800 feet northeast (predominately

downwind direction) of the Res2. Historical operations at the NL property included white lead

paint manufacturing, casting; and secondary lead, tin, babbitt, and solder smelting. NL operated

at this location from 1891 to approximately 1981.

In 2000 and 2001, Pioneer Environmental, Inc. (Pioneer) conducted a focused site investigation

to fully characterize recognized environmental conditions (REC) previously identified at the NL

property (Pioneer, 2001). Pioneer advanced 67 soil borings at specific locations throughout the

NL property. Total metals were analyzed in 38 samples collected from these borings. Based on

the sampling results, Pioneer identified lead as a COC because numerous samples were above

the IEPA's Tier I Soil Remediation Objective (SRO) for lead of 400 mg/kg. On September 4,

2001, the NL property was enrolled into the IEPA Site Remediation Program (SRP) and

underwent cleanup activities, including the excavation and off-site disposal of 2,130 tons of soil

from four impacted areas where the levels of lead were greater than the RCRA TCLP

concentration set forth in Title 40 of the CFR Part 261, Subpart C, 261.24 (b), thereby

representing a material that meets the definition of hazardous waste by virtue of the characteristic

of toxicity (Pioneer, 2002). Cleanup action also included the use of existing and newly

constructed impervious surfaces as an engineered barrier to eliminate the ingestion exposure

route for COCs detected above the IEPA Tier 1 SROs (including lead). The NL property was

issued an NFR letter by IEPA on September 16, 2002 (IEPA, 2002).

During an inspection of the NL Property in November 2007, IEPA found that the engineered

barrier had been removed and that there were on-site piles of excavated soil and gravel (IEPA,

2007). The 2007 IEPA inspection report stated that the NL property was in non-compliance with

the September 2002 NFR because the engineered barriers were removed and multiple piles of

soil and coarse aggregate were staged on-site. IEPA also indicated that the current owner of the

NL property had re-enrolled in the IEPA SRP and had plans for redevelopment.

W0141.1A.00260

Page 34 of 44

WESTON START collected three surface soil samples within 0.15 mile of the NL property: PA-

495-01(0-6)-081313, PA-499-01(0-6)-081413, and PA-504-01(0-6)-081513 (**Figure 3-1**). These

samples were collected in the predominantly upwind direction of NL. Total lead concentrations

of these three samples were 930; 1,200; and 390 mg/kg; respectively. The zinc/lead ratios of

these three samples were 0.46, 0.42, and 0.62, respectively, which is less than the City of

Chicago background of 1.66 (USGS, 2003), and the average for surface soil samples collected in

Res1 and Res2 of 2.08 and 1.29, respectively. These soil samples in Res3 do not appear to have

been impacted by zinc deposition beyond what is typical City of Chicago background.

NL is not suspected to be the primary contributor to elevated lead contamination in surface soils

in Res1 and Res2 based on the aforementioned zinc/lead ratio analysis and NL's location of at

least 1,800 feet in the predominantly downwind direction from the northwestern boundary of

Res2. However, a statistical analysis focusing on NL or an NEIC study of source samples from

NL were not conducted. Therefore, based on the information available, NL cannot be ruled out

as a contributor to lead contamination in surface soils in the Res1, Res2, and Res3 residential

areas at this time.

5.4 <u>CENTURY SMELTING & REFINING</u>

The Century property is located south of the Assessment Area at 2135 South Loomis Street,

Chicago, IL (Figure 2-1). Century is located approximately 400 feet south (predominately

upwind direction) of Res1. Century operated from approximately 1940 to about 1960. The

Century property is situated in the location of the present-day H. Kramer southwest parking lot,

and H. Kramer is the present owner of the Century property (IEPA, 2007; Cook County

Recorder of Deeds, 2014). Century was a babbitt and solder manufacturer, and a scrap iron and

metal dealer from sometime before 1940 to sometime between 1950 and 1963.

In 2007, IEPA conducted a Pre-CERCLIS Screening (PCS) investigation of the Century

property. IEPA reviewed historical Sanborn Fire Insurance maps from the years 1914, 1950, and

1975. IEPA found that in 1914, 2135 South Loomis Street was occupied by a vacant building. In

1950, a building was present at 2135 South Loomis Street identified by the historical Sanborn

Fire Insurance maps as "Soft Metal Smelting." In 1975, no buildings were present at 2135 South

W0141.1A.00260

Page 35 of 44

Loomis Street. Based on the size of the property IEPA concluded that Century was relatively small-scale operation (IEPA, 2007). IEPA also reviewed three editions of the Standard Metal Directory (1940, 1948-1949, and approximately 1963-1964). IEPA found that the Century Smelting & Refining Co. is referenced at the 2135 South Loomis Street address in the 1940 edition as a Babbitt & Solder Manufacturer and a Scrap Iron & Metal Dealer specializing in scrap metal (Standard Metal Directory, 1940). Century Smelting & Refining Co. is listed again in the 1948 edition as a Babbitt & Solder Manufacturer, and as a Scrap Iron & Metal Dealer (Standard Metal Directory, 1948-1949). There is no mention of the Century Smelting & Refining Co. in the 1963-1964 edition.

In 2005 and 2006, CRA conducted a focused site investigation at the H. Kramer property, which included Century on behalf of H. Kramer (CRA, 2007). During this investigation, four soil borings were installed to a depth of approximately 8 ft bgs on the Century property. Ten soil samples were collected from the four soil borings and were analyzed for total lead and TCLP lead. Samples from three of the four boring locations were below the 2014 EPA RML for residential soil and the IEPA Tier I SRO for lead of 400 mg/kg. However, two soil samples collected from the boring location closest to the H. Kramer facility, at depths of 0.3-0.6 ft bgs and 2.5-3.0 ft bgs, contained total lead concentrations of 8,590 mg/kg and 2,140 mg/kg, respectively. In its PCS investigation, IEPA concluded that it was unclear whether the lead contamination identified on the Century property was a result of Century's operations or another source because the only soil boring location with lead above 400 mg/kg was closest to the H. Kramer property, whereon the CRA 2005-2006 investigation also identified elevated lead concentrations (IEPA, 2007).

Antimony is suspected to be a metal unique to Century's historical emissions because antimony is component in babbit and solder (Tomlinson and Bryan, 1986; ASTM International, 2014). Babbit metals were shown by ASTM International (2014) to contain up to 16% antimony and 79.4 % lead. Lead contamination in soil from antimonial lead sources will indicate a higher concentration of antimony relative to non-antimonial sources. Antimony, however, was not detected at considerably higher concentrations in surface soil at residential properties in the Assessment Area within the closest proximity to the H. Kramer (see Figure 4 in **Appendix B**).

W0141.1A.00260

Page 36 of 44

Specifically, in Res1, the mean and median antimony concentration in surface soil samples (0-6

inches bgs, not including garden, drip zone, or duplicate samples) was 11 and 3 mg/kg,

respectively (N = 14). In Res2, the mean and median antimony concentration in surface soil

samples was 4 and 5 mg/kg, respectively (N = 27). In Res3, the mean and median antimony

concentration in surface soil samples was 5 and 5 mg/kg, respectively (N = 21).

Century is not suspected to be the primary contributor to elevated lead contamination in surface

soils in Res1, Res2, and Res3 based on the aforementioned antimony and IEPA findings.

However, a statistical analysis which focuses on Century or an NEIC study of source samples

from Century were not conducted. Therefore, based on the information available and its

proximity to the Assessment Area, EPA cannot rule out Century as a contributor to lead

contamination in surface soils in the Res1, Res2, and Res3 residential areas at this time.

5.5 <u>MIDWEST GENERATION FISK STATION</u>

The Fisk Station property is a 66-acre, former coal-fired power plant located at 1111 West

Cermak Road (Figure 2-1). The plant ceased electricity generation operations in August 2012.

Fisk Station is listed in the EPA TRI System. From 1998 to 2012, approximately 1,197 lb of

lead, 236 lb of zinc, 373 lb of copper, and 805 lb of mercury are estimated and reported to have

been released via fugitive and stack emissions from Fisk Station (EPA, 2013b). As a result,

mercury is suspected to be a metal unique to Fisk's historical emissions and would potentially be

collocated with elevated lead contamination if the Assessment Area had been impacted Fisk

Station emissions deposition. However, mercury was not detected above the 2014 EPA

residential RML (HQ of 3) of 28 mg/kg in any sample collected from the Assessment Area. In

fact, mercury was not detected above 3 mg/kg in any sample collected from the Assessment Area

and the average mercury concentration of all surface soil samples (0-6 inches bgs, not including

garden, drip zone, or duplicate, samples) was 0.65 mg/kg. This mean concentration is only

slightly higher than the mean mercury concentration observed in the USGS (2003) City of

Chicago background investigation of 0.6 mg/kg. This may suggest that the residential properties

within the Assessment Area have not been as heavily impacted by Fisk Station emissions.

Fisk Station is not suspected to be the primary contributor to lead contamination in surface soils

W0141.1A.00260

in the Res1 and Res2 residential areas because (1) the 2011 and 2012 NEIC investigations concluded that Fisk Station contributed insignificant quantities of lead-bearing particulate matter relative to H. Kramer during (and outside) the NAAQS exceedance period of October 2010 to February 2011, and (2) mercury, which was estimated and reported to have been released in similar quantities as lead from 1998 to 2012 (EPA, 2013b), was detected in Assessment Area soils only slightly above the USGS (2003) City of Chicago background.

6. DEFINITION OF PILSEN SOIL SITE RESIDENTIAL AREA SITE BOUNDARY

For the purposes of 40 CFR Part 300, Subpart E, a boundary that encompasses the appropriate extent of response authorized by CERCLA was determined. A removal site evaluation was conducted in an approximately 164-acre residential, commercial, and industrial area of the Pilsen neighborhood of the City of Chicago, Cook County, IL (**Figure 1-1**). The objective of the removal site evaluation was to determine the nature and extent of heavy metal contamination in soil from present and historical sources of heavy metal air emissions on the Assessment Area and to evaluate potential contributing industrial sources. Based on the evaluation of soil data collected in the Assessment and Reference Areas, the Res1 and Res2 portions of the Assessment Area where lead concentrations in soil were above the EPA residential soil RMLs, and where elevated lead is at least partially attributable to a release from the H. Kramer facility, is designated at the "Pilsen Soil Site Residential Area" (the Site). The Res3 portion of the Assessment Area is not included in the Site because the EPA FIELDS statistical analyses could not conclude that there was lead contribution from H. Kramer in residential surface soils in this area. Furthermore, Res3 surface soil lead concentrations indicate other industrial sources.

7. SUMMARY AND CONCLUSIONS

The objective of the removal site evaluation was to determine the nature and extent of heavy metal contamination in soil from present and historical sources of heavy metal air emissions on the Assessment Area and to evaluate potential contributing sources. The Assessment Area is approximately 164 acres in a residential, commercial, and industrial area of the Pilsen neighborhood of the City of Chicago, IL (**Figure 1-1**). Two City of Chicago parks, Dvorak Park

W0141.1A.00260

Page 38 of 44

and Throop Park, and one school, Perez, are located in the Assessment Area. A second school,

Juarez, is located adjacent to the Assessment Area to the west. The Assessment Area was split

into three subareas: Res1, Res2, and Res3 (Figure 2-1).

In May, July, and August 2013, EPA and WESTON START conducted field sampling events at

three study areas: the Assessment Area, Harrison Park reference area, and Little Italy reference

area. Each area consisted of individual residential properties whose owners had voluntarily given

EPA access to collect soil samples.

Soils encountered at the Assessment Area generally consisted of sandy and gravelly silts and

clays. Trace fill materials, including wood chips, and pieces of brick, plastic, and metal, were

occasionally observed. At one property, ID #274, (located in Res1) trace slag was observed in a

0-6 inch bgs composite sample. Property ID #274 is located less than 500 ft from the H. Kramer

stack (Figure 3-1). At H. Kramer, slag is produced as a result of impurities in the melted scraps,

is skimmed off molten metal alloy, collected, and then shipped to customers for further

recycling. The source of the observed slag could not be determined in the field.

Total metal analytical results were compared to the 2014 EPA RMLs (HQ of 3) for residential

soil. Lead was the only metal that exceeded the 2014 EPA RMLs (HQ of 3) for residential soil in

the Assessment Area. Based on these soil sample results, lead is considered to be the primary

COC for the Pilsen Soils Site. A summary of results by subarea is as follows:

• Average Res1 surface soil total lead and fine-grained lead concentrations (0-6 inches bgs,

not including garden, drip zone, duplicate, or replicate samples) were 1,545 and 1,597

mg/kg, respectively (N=14). Average Res1 subsurface soil total lead and fine grained

lead concentrations (6-18, 6-21, and 18-24, inches bgs, not including garden and

duplicate samples) were 1,424 and 1,740 mg/kg, respectively (N=5). These average

concentrations exceed the 2014 EPA residential soil RML for lead of 400 mg/kg. The

average zinc/lead ratios for these Res1 surface and subsurface soil samples were 2.08 and

1.93, respectively. *In vitro* lead bioaccessibility ranged from 55.6 to 95.4% in seven

samples collected in Res1. These results indicate that 55.6 to 95.4% of lead in these

Assessment Area soil samples is able to enter the blood and body tissues if ingested.

W0141.1A.00260

Page 39 of 44

• Average Res2 surface soil total lead and fine grained lead concentrations (0-6 inches bgs,

not including garden, drip zone, duplicate, or replicate samples) were 1,054 and 1,244

mg/kg, respectively (N=27). Average Res2 subsurface soil total lead and fine grained

lead concentrations (6-12, 6-14, 6-24, and 12-24 inches bgs, not including garden or

duplicate samples) were 660 and 723 mg/kg, respectively (N=6). These average

concentrations exceed the 2014 EPA residential soil RML for lead of 400 mg/kg. The

average zinc/lead ratios for these Res2 surface and subsurface soil samples were 1.29 and

0.99, respectively.

• Average Res3 surface soil total lead and fine grained lead concentrations (0-6 inches bgs,

not including garden, replicate, playground, or duplicate samples) were 648 and 747

mg/kg, respectively (N=21). Average Res3 subsurface soil total lead and fine grained

lead concentrations (6-15, 6-18, and 6-24 inches bgs, not including garden or duplicate

samples) were 591 and 610 mg/kg, respectively (N=8). These average concentrations

exceed the 2014 EPA residential soil RML for lead of 400 mg/kg. The average zinc/lead

ratios for these Res3 surface and subsurface soil samples were 0.98 and 1.04,

respectively.

• Average Harrison Park reference area surface soil total lead and fine-grained lead

concentrations (0-6 inches bgs, not including duplicate samples) were 1,525 and 1,604

mg/kg, respectively (N=21). The average zinc/lead ratio for these Harrison Park reference

area surface soil samples was 0.77.

Average Little Italy reference area surface soil total lead and fine-grained lead

concentrations (0-6 inches bgs, not including duplicate samples) were 236 and 320

mg/kg, respectively (N=12). The average zinc/lead ratio for these Little Italy reference

area surface soil samples was 0.84.

EPA FIELDS conducted four statistical analyses (basic statistics, multiple comparisons,

regression, and confidence limits) to investigate the similarities and differences between

concentrations of cadmium, copper, lead, tin, and zinc in surface soil on the H. Kramer property,

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in the immediate vicinity of the H. Kramer property, the Assessment Area, the Little Italy and W0141.1A.00260

Page 40 of 44

West Harrison references areas, and the City of Chicago background (USGS, 2003) (Appendix

B). EPA FIELDS concluded the following:

Concentrations of cadmium, copper, lead, tin, and zinc generally decreased with

increasing distance from H. Kramer. Furthermore, these concentrations do not appear to

increase with decreasing distance toward other potential sources of heavy metal

contamination bordering the Assessment Area, including Loewenthal, NL, and Fisk.

Areas of the Assessment Area closest to H. Kramer (within 0.25 mile north and 0.2 mile

east of H. Kramer including Res1 and Res2) were significantly more impacted with lead

and zinc relative to the Little Italy reference area and the City of Chicago background

(USGS, 2003).

High zinc/lead ratios, a signature characteristic of H. Kramer baghouse dust, are present

in soil in the immediate vicinity of H. Kramer and in the southwest region of the

Assessment Area whereas zinc/lead ratios were near or below reference area levels or

City of Chicago background levels in surface soil samples collected closest to other

potential sources, including Loewenthal and NL.

Antimony, a signature metal suspected to have been emitted by Century, was not detected

at considerably higher concentrations in surface soil at residential properties within closer

proximity to the Century property in the southwest region of the Assessment Area.

EPA FIELDS' findings suggest the areas in the southwest region of the Assessment Area (Res1

and Res2) have been impacted by an industrial release of lead, as opposed to historical leaded

gasoline emissions or lead-based paint debris, whose effects are anticipated to be observed in the

City of Chicago background and the Little Italy reference area. EPA FIELDS' findings also

suggest Loewenthal, NL, Century, and Fisk Station are not the primary industrial contributors to

lead contamination in surfaces soils in the Res1 and Res2 residential areas.

Based on the WESTON and FIELDS evaluation of soil data collected in the Assessment Area

and reference areas, there has been a release of heavy metals through air deposition in Res1 and

W0141.1A.00260

Page 41 of 44

Res2. H. Kramer is located in the predominantly upwind vicinity of the most lead-impacted

residential properties in the Assessment Area, has a history of CDOE, IEPA, and EPA permit

violations, and a record of fugitive and stack emissions (54,366 lb of lead and 832,567 lb of zinc

since 1987 [EPA, 2013a]). As a result, uncontrolled industrial air emissions from H. Kramer may

represent a significant industrial contribution to elevated concentrations of lead within the Res1

and Res2 areas.

The Res1 and Res2 portions of the Assessment Area where lead concentrations in soil were

above the EPA residential soil RMLs and where the lead is at least partially attributable to a

release from the H. Kramer facility is designated at the "Pilsen Soil Site Residential Area" (the

Site). In the Harrison Park reference area and Res3, where total lead was detected in residential

surface soil samples in concentrations exceeding the 2014 EPA residential soil RML for lead of

400 mg/kg, the primary source(s) does not appear to be H. Kramer.

Aside from Fisk Station (NEIC, 2012), no statistical analysis focusing on other potential

industrial sources or an NEIC study of sources samples from any other potential industrial

source, such as Loewenthal, NL, and Century, was conducted. Therefore, based on the

information available, Loewenthal, NL, Century cannot presently be ruled out as a contributor to

lead contamination in surface soils in the Res1, Res2, and Res3 residential areas.

Exposure to lead in soil at concentrations above the EPA residential soil RML is possible

because impacted areas of the Assessment Area consist of soil on residential properties. Potential

receptors include residents and workers at the industrial and commercial businesses located at

the Assessment Area. Potential migration pathways and exposure mechanisms include human

and animal activities, surface drainage, and wind dispersion. WESTON START observed

numerous yards with bare exposed soil and evidence of child residents, such as toys and play

areas.

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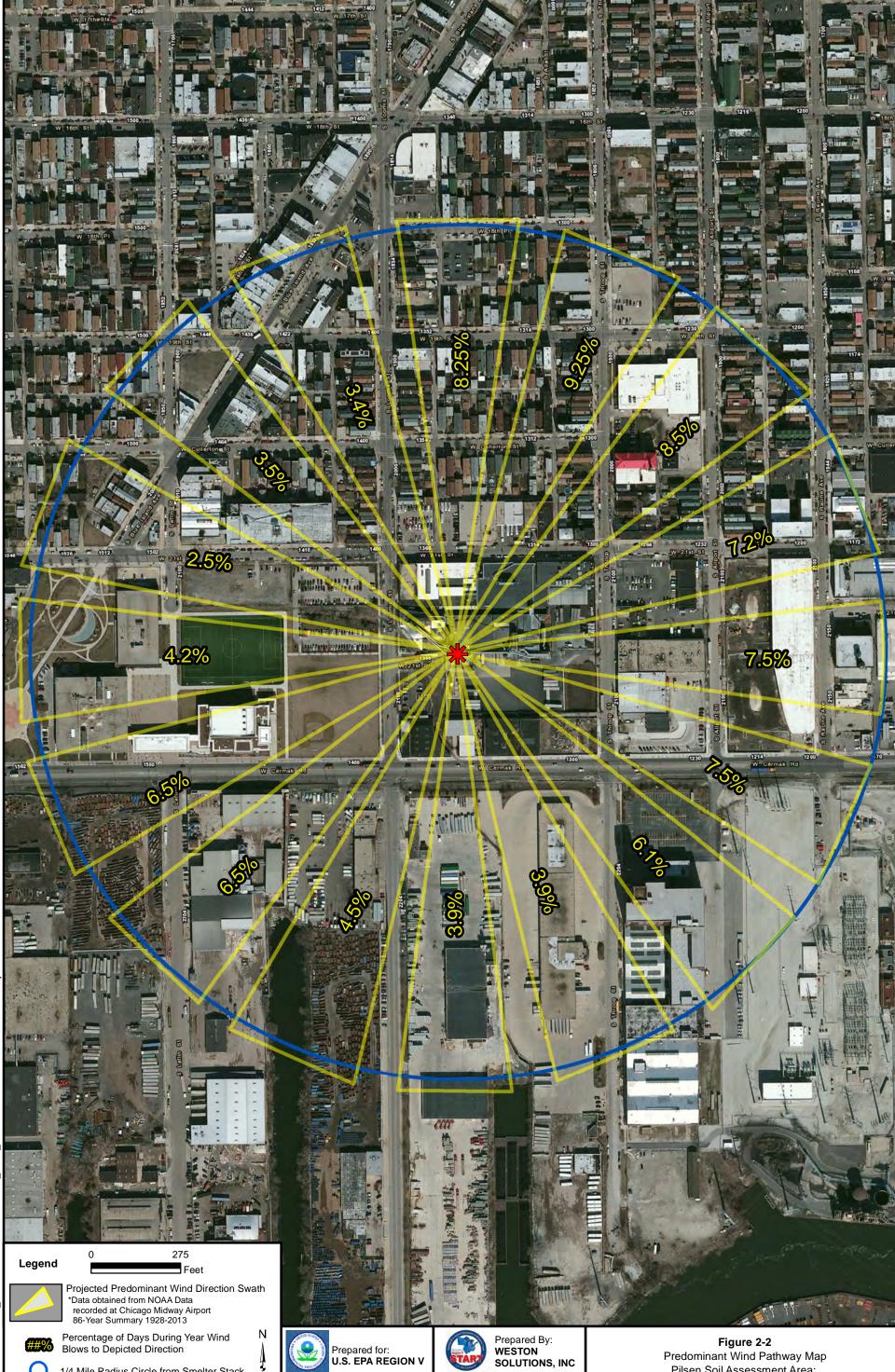
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FIGURES

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Chicago, Illinois 60606

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Pilsen Soil Assessment Area:

Residential (Redacted)

Chicago, Cook County, Illinois

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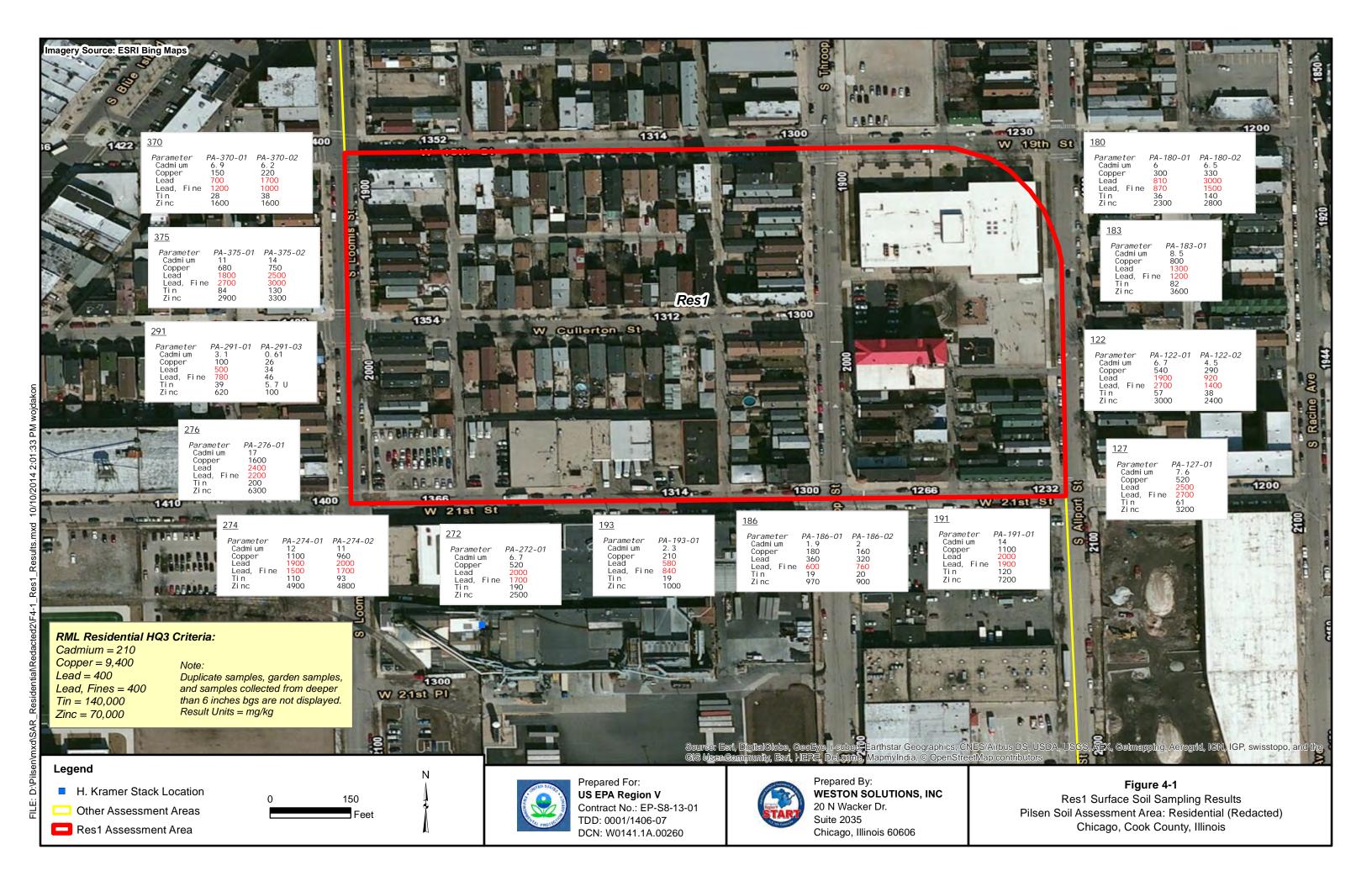
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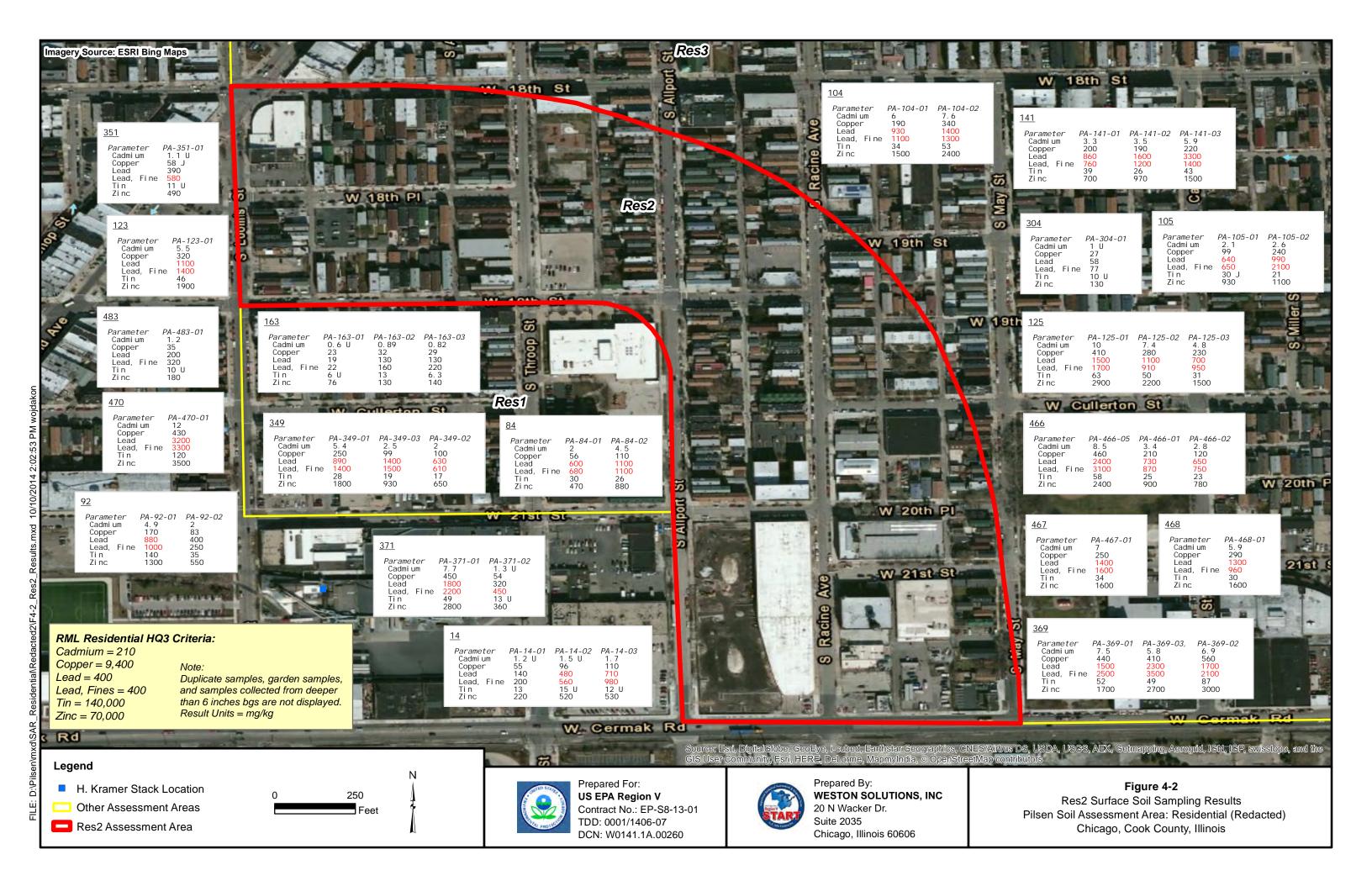
H. Kramer and Company Smelter Stack

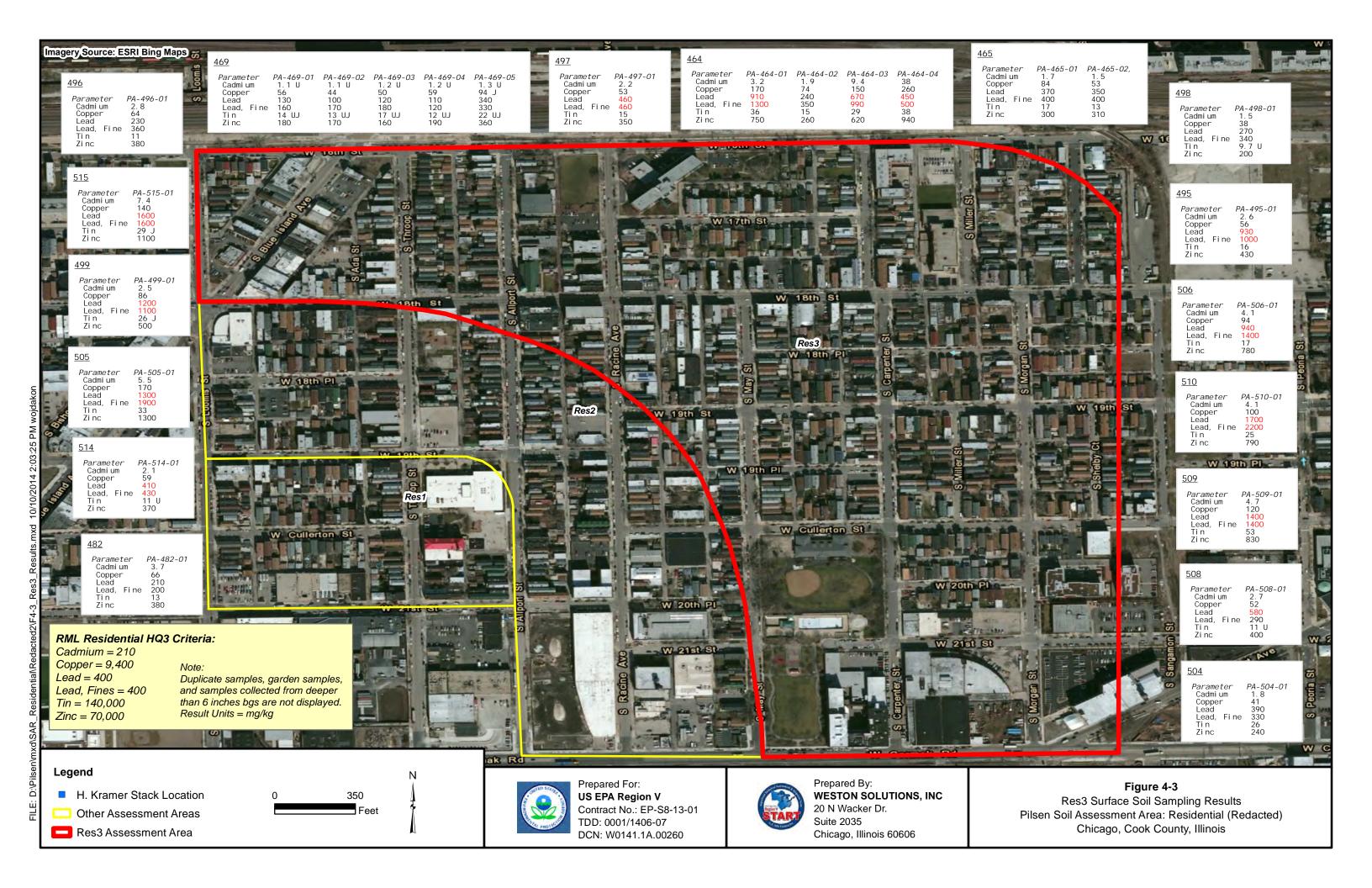
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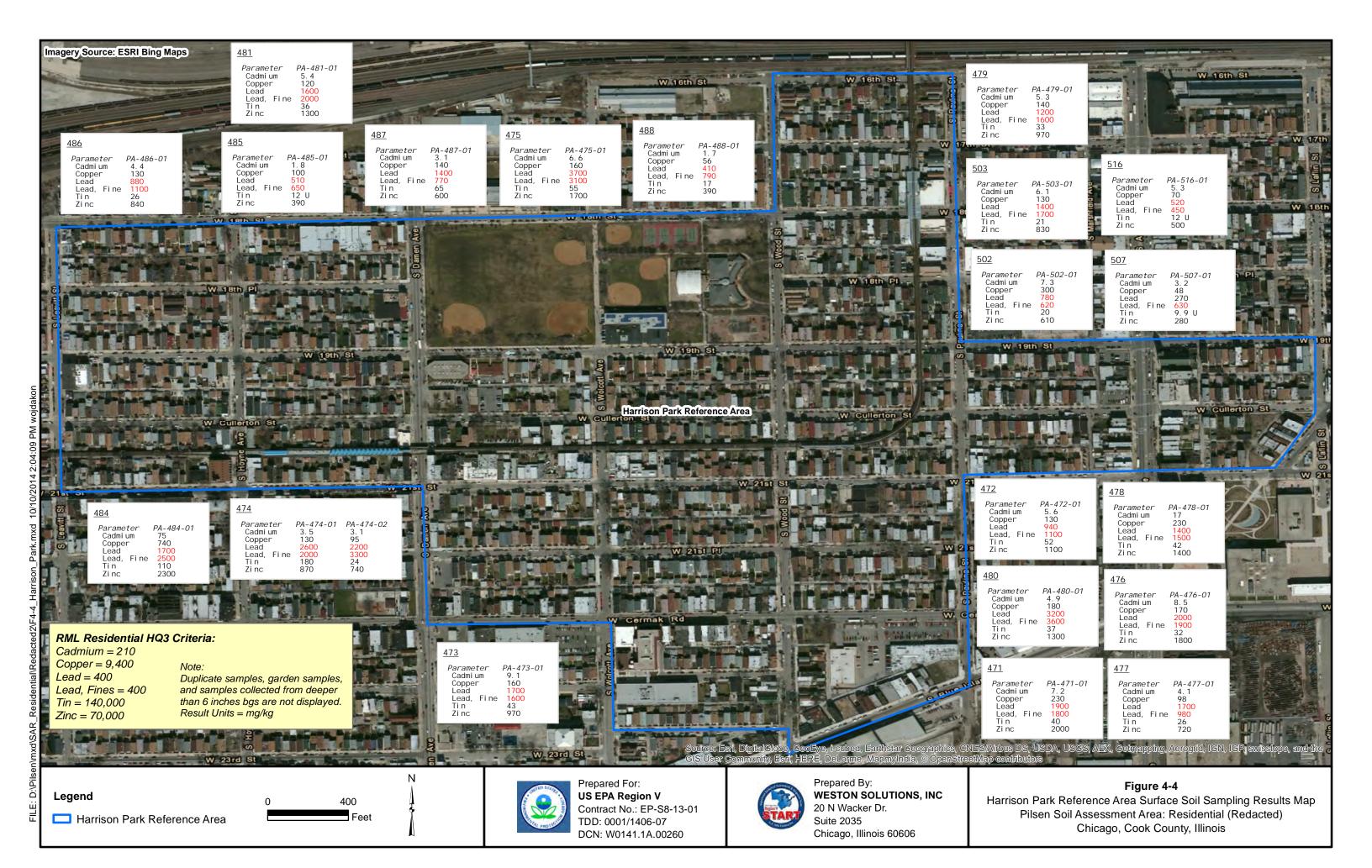
20 N Wacker Dr.

Suite 2035 Chicago, Illinois 60606











TDD: 0001/1406-07

DCN: W0141.1A.00260

Suite 2035

Chicago, Illinois 60606

Chicago, Cook County, Illinois

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Little Italy Reference Area

TABLES

TABLE 3-1 SOIL SAMPLING SUMMARY IAL

PILSEN SOIL ASSESSMEN	T AREA: I	RESIDENTIA
CHICAGO, COOK CO	DUNTY, II	LINOIS

									Analyses			
	Date		Location of Sample on	Property		Depth	Total	Fine-Grained	Bioavailable	TCLP	Total	
Sample ID	Collected	Location of Property Sampled	Property		Sample Type	_	Metals	Lead	Lead	Lead	Lead	pН
May Field Event	•		• •	'				•			•	
PA-163-01(0-6)-050113	5/1/2013	AA - Res2	Garden	163	Composite	0-6	X	X		X		X
PA-163-02(0-6)-050113	5/1/2013	AA - Res2	Garden	163	Composite	0-6	X	X		X		X
PA-163-03(0-6)-050113	5/1/2013	AA - Res2	Drip Zone	163	Composite	0-6	X	X		X		X
PA-272-01(0-6)-050113	5/1/2013	AA - Res1	Back yard	272	Composite	0-6	X	X		X		X
PA-274-01(0-6)-050113	5/1/2013	AA - Res1	Back yard	274	Composite	0-6	X	X		X		X
PA-274-02(0-6)-050113	5/1/2013	AA - Res1	Drip zone	274	Composite	0-6	X	X		X		X
PA-276-01(0-6)-050113	5/1/2013	AA - Res1	Back yard	276	Composite	0-6	X	X	X	X		X
PA-276-01(0-6)-050113D	5/1/2013	AA - Res1	Back yard	276	Composite	0-6	X	X	X	X		X
PA-291-01(0-6)-050113	5/1/2013	AA - Res1	Front yard	291	Composite	0-6	X	X		X		X
PA-291-03(0-6)-050113	5/1/2013	AA - Res1	Garden	291	Composite	0-6	X	X		X		X
PA-104-01(0-6)-050213	5/2/2013	AA - Res2	Front yard	104	Composite	0-6	X	X		X		X
PA-104-02(0-6)-050213	5/2/2013	AA - Res2	Back yard	104	Composite	0-6	X	X		X		X
PA-105-01(0-6)-050213	5/2/2013	AA - Res2	Front yard	105	Composite	0-6	X	X		X		X
PA-105-02(0-6)-050213	5/2/2013	AA - Res2	Back yard	105	Composite	0-6	X	X		X		X
PA-105-03(0-6)-050213	5/2/2013	AA - Res2	Replicate - Back yard	105	Composite	0-6	X	X		X		X
PA-105-04(0-6)-050213	5/2/2013	AA - Res2	Replicate - Back yard	105	Composite	0-6	X	X		X		X
PA-180-01(0-6)-050213	5/2/2013	AA - Res1	Yard (east 1/2 vacant lot)	180	Composite	0-6	X	X		X		X
PA-180-02(0-6)-050213	5/2/2013	AA - Res1	Yard (west 1/2 vacant lot)	180	Composite	0-6	X	X		X		X
PA-183-01(0-12)-050213	5/2/2013	AA - Res1	Garden	183	Composite	0-12	X	X		X		X
PA-186-01(0-6)-050213	5/2/2013	AA - Res1	Front yard	186	Composite	0-6	X	X		X		X
PA-186-02(0-6)-050213	5/2/2013	AA - Res1	Back yard	186	Composite	0-6	X	X		X		X
PA-186-03(0-6)-050213	5/2/2013	AA - Res1	Replicate - Back yard	186	Composite	0-6					X	
PA-186-04(0-6)-050213	5/2/2013	AA - Res1	Replicate - Back yard	186	Composite	0-6					X	
PA-191-01(0-6)-050213	5/2/2013	AA - Res1	Back yard	191	Composite	0-6	X	X		X		X
PA-191-01(0-6)-050213D	5/2/2013	AA - Res1	Back yard	191	Composite	0-6	X	X		X		X
PA-122-01(0-6)-050313	5/3/2013	AA - Res1	Back yard	122	Composite	0-6	X	X	X	X		X
PA-122-02(0-6)-050313	5/3/2013	AA - Res1	Garden	122	Composite	0-6	X	X		X		X
PA-123-01(0-12)-050313	5/3/2013	AA - Res2	Garden	123	Composite	0-12	X	X		X		X
PA-125-01(0-6)-050313	5/3/2013	AA - Res2	Yard (west 1/2 lot)	125	Composite	0-6	X	X		X		X
PA-125-02(0-6)-050313	5/3/2013	AA - Res2	Yard (east 1/2 lot)	125	Composite	0-6	X	X		X		X
PA-125-03(0-12)-050313	5/3/2013	AA - Res2	Garden	125	Composite	0-12	X	X		X		X
PA-125-04(0-6)-050313	5/3/2013	AA - Res2	Replicate - Back yard	125	Composite	0-6	X	X		X		X
PA-125-05(0-6)-050313	5/3/2013	AA - Res2	Replicate - Back yard	125	Composite	0-6	X	X		X		X
PA-127-01(0-6)-050313	5/3/2013	AA - Res1	Back yard	127	Composite	0-6	X	X	X	X		X
PA-193-01(0-6)-050313	5/3/2013	AA - Res1	Back yard	193	Composite	0-6	X	X		X		X
PA-141-01(0-6)-050713	5/7/2013	AA - Res2	Yard (west 1/2 lot)	141	Composite	0-6	X	X		X		X
PA-141-02(0-6)-050713	5/7/2013	AA - Res2	Yard (east 1/2 lot)	141	Composite	0-6	X	X		X		X
PA-141-03(0-12)-050713	5/7/2013	AA - Res2	Garden	141	Composite	0-12	X	X		X		X
PA-349-01(0-6)-050713	5/7/2013	AA - Res2	Front yard	349	Composite	0-6	X	X		X		X
PA-349-02(0-12)-050713	5/7/2013	AA - Res2	Garden	349	Composite	0-12	X	X		X		X

TABLE 3-1 SOIL SAMPLING SUMMARY PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

							Analyses					
Sample ID	Date Collected	Location of Property Sampled	Location of Sample on Property	Property ID	Sample Type	Depth (in bgs)	Total Metals	Fine-Grained Lead	Bioavailable Lead	TCLP Lead	Total Lead	pН
PA-349-03(0-6)-050713	5/7/2013	AA - Res2	Backyard	349	Composite	0-6	X	X		X		X
PA-351-01(0-6)-050713	5/7/2013	AA - Res2	Garden	351	Composite	0-6	X	X		X		X
PA-369-01(0-2)-050713	5/7/2013	AA - Res2	Backyard	369	Composite	0-2	X	X		X		X
PA-369-01(0-6)-050713	5/7/2013	AA - Res2	Backyard	369	Composite	0-6	X	X		X		X
PA-369-02(0-6)-050713	5/7/2013	AA - Res2	Garden	369	Composite	0-6	X	X		X		X
PA-369-03,04(0-6)-050713	5/7/2013	AA - Res2	Front yard	369	Composite	0-6	X	X		X		X
PA-370-01(0-6)-050713	5/7/2013	AA - Res1	Backyard	370	Composite	0-6	X	X		X		X
PA-370-01(0-6)-050713D	5/7/2013	AA - Res1	Backyard	370	Composite	0-6	X	X		X		X
PA-370-02(0-6)-050713	5/7/2013	AA - Res1	Garden	370	Composite	0-6	X	X		X		X
PA-370-02(6-12)-050713	5/7/2013	AA - Res1	Garden	370	Composite	6-12	X	X		X		X
PA-371-01(0-6)-050713	5/7/2013	AA - Res2	Backyard	371	Composite	0-6	X	X		X		X
PA-371-02(0-6)-050713	5/7/2013	AA - Res2	Front yard	371	Composite	0-6	X	X		X		X
PA-371-02(0-6)-050713D	5/7/2013	AA - Res2	Front yard	371	Composite	0-6	X	X		X		X
PA-375-01(0-6)-050713	5/7/2013	AA - Res1	Backyard	375	Composite	0-6	X	X	X	X		X
PA-375-02(0-12)-050713	5/7/2013	AA - Res1	Garden	375	Composite	0-12	X	X		X		X
PA-84-01(0-6)-050813	5/8/2013	AA - Res2	Front yard	84	Composite	0-6	X	X		X		X
PA-84-02(0-6)-050813	5/8/2013	AA - Res2	Backyard	84	Composite	0-6	X	X		X		X
PA-84-02(0-6)-050813D	5/8/2013	AA - Res2	Backyard	84	Composite	0-6	X	X		X		X
PA-84-04(0-6)-050813	5/8/2013	AA - Res2	Replicate - Front yard	84	Composite	0-6					X	
PA-84-05(0-6)-050813	5/8/2013	AA - Res2	Replicate - Front yard	84	Composite	0-6					X	
PA-92-01(0-6)-050813	5/8/2013	AA - Res2	Backyard	92	Composite	0-6	X	X		X		X
PA-92-02(0-12)-050813	5/8/2013	AA - Res2	Garden	92	Composite	0-12	X	X		X		X
PA-464-01(0-6)-050813	5/8/2013	AA - Res3	Yard (east 1/2 lot)	464	Composite	0-6	X	X		X		X
PA-464-02(0-6)-050813	5/8/2013	AA - Res3	Yard (west 1/2 lot)	464	Composite	0-6	X	X		X		X
PA-464-03(0-12)-050813	5/8/2013	AA - Res3	Garden	464	Composite	0-12	X	X		X		X
PA-464-04(0-12)-050813	5/8/2013	AA - Res3	Garden	464	Composite	0-12	X	X		X		X
PA-464-04(0-12)-050813D	5/8/2013	AA - Res3	Garden	464	Composite	0-12	X	X		X		X
PA-464-05(0-6)-050813	5/8/2013	AA - Res3	Replicate - yard (east 1/2 lot)	464	Composite	0-6					X	
PA-464-06(0-6)-050813	5/8/2013	AA - Res3	Replicate - yard (east 1/2 lot)	464	Composite	0-6					X	
PA-14-01(0-6)-050913	5/9/2013	AA - Res2	Backyard	14	Composite	0-6	X	X		X		X
PA-14-02(0-6)-050913	5/9/2013	AA - Res2	Front yard	14	Composite	0-6	X	X		X		X
PA-14-03(0-6)-050913	5/9/2013	AA - Res2	Drip zone	14	Composite	0-6	X	X		X		X
PA-304-01(0-6)-050913	5/9/2013	AA - Res2	Backyard	304	Composite	0-6	X	X		X		X
PA-465-01(0-6)-050913	5/9/2013	AA - Res3	Yard	465	Composite	0-6	X	X		X		X
PA-465-01(0-6)-050913D	5/9/2013	AA - Res3	Yard	465	Composite	0-6	X	X		X		X
PA-465-02,03,04(0-12)-050913	5/9/2013	AA - Res3	Garden	465	Composite	0-12	X	X		X		X
PA-466-01(0-6)-050913	5/9/2013	AA - Res2	Yard (east 1/2 lot)	466	Composite	0-6	X	X	X	X		X
PA-466-02(0-6)-050913	5/9/2013	AA - Res2	Yard (west 1/2 lot)	466	Composite	0-6	X	X		X		X
PA-466-03(0-6)-050913	5/9/2013	AA - Res2	Replicate - yard (east 1/2 lot)	466	Composite	0-6					X	
PA-466-04(0-6)-050913	5/9/2013	AA - Res2	Replicate - yard (east 1/2 lot)	466	Composite	0-6					X	
PA-466-05(0-6)-050913	5/9/2013	AA - Res2	Drip zone	466	Grab	0-6	X	X		X		X

TABLE 3-1 SOIL SAMPLING SUMMARY PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

									Analyses			
	Date		Location of Sample on	Property		Depth	Total	Fine-Grained	Bioavailable	TCLP	Total	
Sample ID	Collected	Location of Property Sampled	Property	ID	Sample Type	(in bgs)	Metals	Lead	Lead	Lead	Lead	pН
PA-467-01(0-6)-050913	5/9/2013	AA - Res2	Backyard	467	Composite	0-6	X	X		X		X
PA-468-01(0-6)-050913	5/9/2013	AA - Res2	Backyard	468	Composite	0-6	X	X		X		X
PA-469-01(0-6)-051013	5/10/2013	AA - Res3	Field - northeast quadrant	469	Composite	0-6	X	X		X		X
PA-469-01(0-6)-051013D	5/10/2013	AA - Res3	Field - northwest quadrant	469	Composite	0-6	X	X		X		X
PA-469-02(0-6)-051013	5/10/2013	AA - Res3	Field - northeast quadrant	469	Composite	0-6	X	X		X		X
PA-469-03(0-6)-051013	5/10/2013	AA - Res3	Field - southwest quadrant	469	Composite	0-6	X	X		X		X
PA-469-04(0-6)-051013	5/10/2013	AA - Res3	Field - southeast quadrant	469	Composite	0-6	X	X		X		X
PA-469-04(0-6)-051013D	5/10/2013	AA - Res3	Field - southeast quadrant	469	Composite	0-6	X	X		X		X
PA-469-05(0-6)-051013	5/10/2013	AA - Res3	Playground	469	Composite	0-6	X	X	X	X		X
July Field Event				•							•	
PA-92-01(6-12)-070913	7/9/2013	AA - Res2	Backyard	92	Composite	6-12	X	X				
PA-92-01(12-24)-070913	7/9/2013	AA - Res2	Backyard	92	Composite	12-24	X	X				
PA-470-01(0-6)-070913	7/9/2013	AA - Res2	Backyard	470	Composite	0-6	X	X				
PA-471-01(0-6)-070913	7/9/2013	Harrison Park Reference Area	Backyard	471	Composite	0-6	X	X				
PA-472-01(0-6)-070913	7/9/2013	Harrison Park Reference Area	Backyard	472	Composite	0-6	X	X				
PA-472-01(0-6)-070913D	7/9/2013	Harrison Park Reference Area	Backyard	472	Composite	0-6	X	X				
PA-473-01(0-6)-070913	7/9/2013	Harrison Park Reference Area	Backyard	473	Composite	0-6	X	X				
PA-473-01(6-18)-070913	7/9/2013	Harrison Park Reference Area	Backyard	473	Composite	6-18	X	X				
PA-473-01(18-24)-070913	7/9/2013	Harrison Park Reference Area	Backyard	473	Composite	18-24	X	X				
PA-474-01(0-6)-071013	7/10/2013	Harrison Park Reference Area	Backyard	474	Composite	0-6	X	X				
PA-474-01(6-18)-071013	7/10/2013	Harrison Park Reference Area	Backyard	474	Composite	6-18	X	X				
PA-474-02(0-6)-071013	7/10/2013	Harrison Park Reference Area	Frontyard	474	Composite	0-6	X	X				
PA-475-01(0-6)-071013	7/10/2013	Harrison Park Reference Area	Backyard	475	Composite	0-6	X	X				
PA-476-01(0-6)-071013	7/10/2013	Harrison Park Reference Area	Backyard	476	Composite	0-6	X	X				
PA-477-01(0-6)-071013	7/10/2013	Harrison Park Reference Area	Backyard	477	Composite	0-6	X	X				
PA-477-01(6-18)-071013	7/10/2013	Harrison Park Reference Area	Backyard	477	Composite	6-18	X	X				
PA-478-01(0-6)-071013	7/10/2013	Harrison Park Reference Area	Front/Back Comp.	478	Composite	0-6	X	X				
PA-469-01(6-15)-071113	7/11/2013	AA - Res3	Field - northwest quadrant	469	Composite	6-15	X	X				
PA-469-02(6-15)-071113	7/11/2013	AA - Res3	Field - northeast quadrant	469	Composite	6-15	X	X				
PA-469-03(6-15)-071113	7/11/2013	AA - Res3	Field - southwest quadrant	469	Composite	6-15	X	X				
PA-469-03(6-15)-071113D	7/11/2013	AA - Res3	Field - southwest quadrant	469	Composite	6-15	X	X				
PA-478-01(0-6)-071013D	7/11/2013	Harrison Park Reference Area	Front/Back Comp.	478	Composite	0-6	X	X				
PA-479-01(0-6)-071113	7/11/2013	Harrison Park Reference Area	Front yard	479	Composite	0-6	X	X				
PA-480-01(0-6)-071113	7/11/2013	Harrison Park Reference Area	J		Composite	0-6	X	X				
PA-481-01(0-6)-071113	7/11/2013	Harrison Park Reference Area	ž		Composite	0-6	X	X				
PA-482-01(0-6)-071113	7/11/2013	AA - Res3	Frontyard	482	Composite	0-6	X	X				
PA-482-01(6-18)-071113	7/11/2013	AA - Res3	Frontyard	482	Composite	6-18	X	X				
PA-483-01(0-6)-071213	7/12/2013	AA - Res2	Backyard	483	Composite	0-6	X	X				
PA-483-01(6-24)-071213	7/12/2013	AA - Res2	Backyard	483	Composite	6-24	X	X				
PA-484-01(0-6)-071213	7/12/2013	Harrison Park Reference Area	Backyard	484	Composite	0-6	X	X				
PA-484-01(6-18)-071213	7/12/2013	Harrison Park Reference Area	Backyard	484	Composite	6-18	X	X				

TABLE 3-1 SOIL SAMPLING SUMMARY PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

									Analyses			
	Date		Location of Sample on	Property		Depth	Total	Fine-Grained	Bioavailable	TCLP	Total	
Sample ID	Collected	Location of Property Sampled	Property	ID	Sample Type	-	Metals	Lead	Lead	Lead	Lead	pН
PA-485-01(0-6)-071213	7/12/2013	Harrison Park Reference Area	Backyard	485	Composite	0-6	X	X			Ť	
PA-486-01(0-6)-071213	7/12/2013	Harrison Park Reference Area	Backyard	486	Composite	0-6	X	X				
PA-486-01(6-24)-071213	7/12/2013	Harrison Park Reference Area	Backyard	486	Composite	6-24	X	X				
PA-486-01(6-24)-071213D	7/12/2013	Harrison Park Reference Area	Backyard	486	Composite	6-24	X	X				
PA-122-01(6-18)-071513	7/15/2013	AA - Res1	Backyard	122	Composite	6-18	X	X				
PA-122-01(18-24)-071513	7/15/2013	AA - Res1	Backyard	122	Composite	18-24	X	X				
PA-122-01(18-24)-071513D	7/15/2013	AA - Res1	Backyard	122	Composite	18-24	X	X				
PA-276-01(6-18)-071513	7/15/2013	AA - Res1	Backyard	276	Composite	6-18	X	X				
PA-276-01(18-24)-071513	7/15/2013	AA - Res1	Backyard	276	Composite	18-24	X	X				
PA-487-01(0-6)-071513	7/15/2013	Harrison Park Reference Area	Backyard	487	Composite	0-6	X	X				
PA-488-01(0-6)-071513	7/15/2013	Harrison Park Reference Area	Front yard	488	Composite	0-6	X	X				
PA-104-01(12-24)-071613	7/16/2013	AA - Res2	Front yard	104	Composite	12- 24	X	X				
PA-104-01(6-12)-071613	7/16/2013	AA - Res2	Front yard	104	Composite	6- 12	X	X				
PA-127-01(6-21)-071613	7/16/2013	AA - Res1	Back yard	127	Composite	6- 21	X	X				
PA-349-03(6-14)-071613	7/16/2013	AA - Res2	Backyard	349	Composite	6- 14	X	X				
August Field Event	•		· · · · · · · · · · · · · · · · · · ·	•	•							
PA-489-01(0-6)-081213	8/12/2013	Little Italy Reference Area	Front yard	489	Composite	0-6	X	X				
PA-489-01(6-18)-081213	8/12/2013	Little Italy Reference Area	Front yard	489	Composite	6-18	X	X				
PA-490-01(0-6)-081213	8/12/2013	Little Italy Reference Area	Front yard	490	Composite	0-6	X	X				
PA-491-01(0-6)-081213	8/12/2013	Little Italy Reference Area	Front yard	491	Composite	0-6	X	X				1
PA-491-01(6-18)-081213	8/12/2013	Little Italy Reference Area	Front yard	491	Composite	6-18	X	X				
PA-491-01(6-18)-081213D	8/12/2013	Little Italy Reference Area	Front yard	491	Composite	6-18	X	X				
PA-492-01(0-6)-081313	8/13/2013	Little Italy Reference Area	Front yard	492	Composite	0-6	X	X				
PA-493-01(0-6)-081313	8/13/2013	Little Italy Reference Area	Front yard	493	Composite	0-6	X	X				
PA-494-01(0-6)-081313	8/13/2013	Little Italy Reference Area	Backyard Common Area	494	Composite	0-6	X	X				
PA-495-01(0-6)-081313	8/13/2013	AA - Res3	Backyard	495	Composite	0-6	X	X				
PA-495-01(6-24)-081313	8/13/2013	AA - Res3	Backyard	495	Composite	6-24	X	X				
PA-496-01(0-6)-081313	8/13/2013	AA - Res3	Backyard	496	Composite	0-6	X	X				
PA-497-01(0-6)-081313	8/13/2013	AA - Res3	Backyard	497	Composite	0-6	X	X				
PA-498-01(0-6)-081313	8/13/2013	AA - Res3	Backyard	498	Composite	0-6	X	X				
PA-498-01(0-6)-081313D	8/13/2013	AA - Res3	Backyard	498	Composite	0-6	X	X				
PA-498-01(6-15)-081313	8/13/2013	AA - Res3	Backyard	498	Composite	6-15	X	X				
PA-499-01(0-6)-081413	8/14/2013	AA - Res3	Frontyard	499	Composite	0-6	X	X				
PA-500-01(0-6)-081413	8/14/2013	Little Italy Reference Area	Backyard	500	Composite	0-6	X	X				
PA-500-01(6-24)-081413	8/14/2013	Little Italy Reference Area	Backyard	500	Composite	6-24	X	X				
PA-501-01(0-6)-081413	8/14/2013	Little Italy Reference Area	Frontyard	501	Composite	0-6	X	X				
PA-502-01(0-6)-081413	8/14/2013	Harrison Park Reference Area	Backyard	502	Composite	0-6	X	X				
PA-502-01(6-24)-081413	8/14/2013	Harrison Park Reference Area	Backyard	502	Composite	6-24	X	X				
PA-503-01(0-6)-081413	8/14/2013	Harrison Park Reference Area	Frontyard	503	Composite	0-6	X	X				
PA-503-01(6-24)-081413	8/14/2013	Harrison Park Reference Area	Frontyard	503	Composite	6-24	X	X				
PA-504-01(0-6)-081513	8/15/2013	AA - Res3	Frontyard	504	Composite	0-6	X	X				

TABLE 3-1 SOIL SAMPLING SUMMARY PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL

CHICAGO, COOK COUNTY, ILLINOIS

									Analyses			
	Date		Location of Sample on	Property		Depth	Total	Fine-Grained	Bioavailable	TCLP	Total	
Sample ID	Collected	Location of Property Sampled	Property	ID	Sample Type	(in bgs)	Metals	Lead	Lead	Lead	Lead	pН
PA-505-01(0-6)-081513	8/15/2013	AA - Res3	Backyard	505	Composite	0-6	X	X				
PA-505-01(0-6)-081513D	8/15/2013	AA - Res3	Backyard	505	Composite	0-6	X	X				
PA-506-01(0-6)-081513	8/15/2013	AA - Res3	Backyard	506	Composite	0-6	X	X				
PA-507-01(0-6)-081513	8/15/2013	Harrison Park Reference Area	Backyard	507	Composite	0-6	X	X				
PA-508-01(0-6)-081513	8/15/2013	AA - Res3	Backyard	508	Composite	0-6	X	X				
PA-508-01(6-24)-081513	8/15/2013	AA - Res3	Backyard	508	Composite	6-24	X	X				
PA-509-01(0-6)-081513	8/15/2013	AA - Res3	Backyard	509	Composite	0-6	X	X				
PA-510-01(0-6)-081513	8/15/2013	AA - Res3	Frontyard	510	Composite	0-6	X	X				
PA-511-01(0-6)-081613	8/16/2013	Little Italy Reference Area	Frontyard	511	Composite	0-6	X	X				
PA-512-01(0-6)-081613	8/16/2013	Little Italy Reference Area	Frontyard	512	Composite	0-6	X	X				
PA-513-01(0-6)-081613	8/16/2013	Little Italy Reference Area	Frontyard	513	Composite	0-6	X	X				
PA-513-01(0-6)-081613D	8/16/2013	Little Italy Reference Area	Frontyard	513	Composite	0-6	X	X				
PA-514-01(0-6)-081613	8/16/2013	AA - Res3	Backyard	514	Composite	0-6	X	X				
PA-514-01(6-24)-081613	8/16/2013	AA - Res3	Backyard	514	Composite	6-24	X	X				
PA-515-01(0-6)-081613	8/16/2013	AA - Res3	Frontyard	515	Composite	0-6	X	X				
PA-516-01(0-6)-081613	8/16/2013	Harrison Park Reference Area	Backyard	516	Composite	0-6	X	X				
PA-516-01(0-6)-081613D	8/16/2013	Harrison Park Reference Area	Backyard	516	Composite	0-6	X	X				
PA-516-01(6-18)-081613	8/16/2013	Harrison Park Reference Area	Backyard	516	Composite	6-18	X	X				

Notes:

% = Percent

AA = Assessment Area

bgs = Below ground surface

ID = Identification

in = Inches

TCLP = Toxicity characterisitic leaching procedure

TABLE 4-1 RES1 SOIL SAMPLING RESULTS

PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

			T 110 1 TD	D + 070 01(0 C)		T D 1 02 (0 C)	D. 1. 05 (01 (0 . 6)	D + 05 (01/0 ()	D + 201 01(0 C)	T D + 201 02(0.6)	T. 100.01(0.6)
			Field Sample ID	PA-272-01(0-6)-	` ′	PA-274-02(0-6)-	PA-276-01(0-6)-	PA-276-01(0-6)-	PA-291-01(0-6)-	PA-291-03(0-6)-	PA-180-01(0-6)-
				050113	050113	050113	050113	050113D	050113	050113	050213
			Property ID	272-01	274-01	274-02	276-01	276-01	291-01	291-03	180-01
			Location of								
			Property Sampled	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1
			Location of Sample								Yard (east 1/2
			on Property	Back yard	Back yard	Drip zone	Back yard	Back yard	Front yard	Garden	vacant lot)
			Sample Date	5/1/2013	5/1/2013	5/1/2013	5/1/2013	5/1/2013	5/1/2013	5/1/2013	5/2/2013
			Depth Interval	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
			(in bgs)	0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6
	40 CFR 261, Subpart C	EPA RML for Res.									
Parameter	261.24 (b)	Soil, HQ 3	Unit								
Total Metals		•									
Antimony	-	94	mg/kg	33 J	3.6 J	3.5 J	13 J	7.7 J	2.4 U	2.3 U	42 J
Cadmium	-	210	mg/kg	6.7	12	11	17	16	3.1	0.61	6
Chromium ¹	-	350000	mg/kg	21	55	41	49	62	24	19	28
Copper	-	9400	mg/kg	520	1100	960	1600	1700	100	26	300
Lead	-	400	mg/kg	2000	1900	2000	2400	3600	500	34	810
Lead, Fine-Grained	-	400	mg/kg	1700	1500	1700	2200	2100	780	46	870
Tin	-	140000	mg/kg	190	110	93	200	180	39	5.7 U	36
Zinc	-	70000	mg/kg	2500	4900	4800	6300	6400	620	100	2300
Mercury	-	28	mg/kg	0.75	0.72	0.65	1.2	1.4	0.39	0.028	0.36
TCLP Metals											
Lead, TCLP	5	-	mg/L	0.43	0.12	0.11	0.48	0.5	0.03	0.005 U	0.16
Miscellaneous Analy	yses										
In Vitro Lead											
Bioaccessibility	-	-	%	-	-	-	95.4	92.1	-	-	-
рН	-	-	SU	7.9	6.6	6.6	7.4	7.5	7.7	7.5	7.1

Notes:

Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

¹RML is for chromium (III), no RML exists for total chromium

- = Not applicable or not analyzed

AA = Assessment Area

bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

RESI SOIL SAMPLING RESULTS

PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

					,	11,12211015					
			Field Sample ID	` ′	PA-183-01(0-6)-	PA-186-01(0-6)-	PA-186-02(0-6)-	PA-186-03(0-6)-	PA-186-04(0-6)-	PA-191-01(0-6)-	PA-191-01(0-6)-
				050213	050213	050213	050213	050213	050213	050213	050213D
			Property ID	180-02	183-01	186-01	186-02	186-03	186-04	191-01	191-01
			Location of								
			Property Sampled	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1
			Location of Sample	Yard (west 1/2				Back yard -	Back yard -		
			on Property	vacant lot)	Garden	Front yard	Back yard	Replicate	Replicate	Back yard	Back yard
			Sample Date	5/2/2013	5/2/2013	5/2/2013	5/2/2013	5/2/2013	5/2/2013	5/2/2013	5/2/2013
			Depth Interval	0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6
	40 CFR 261, Subpart C,	EDA DMI for Dog	(in bgs)								
Parameter	261.24 (b)	Soil, HQ 3	Unit								
Total Metals											
Antimony	-	94	mg/kg	2.2 U	5.3 J	2.2 U	2.3 U	•	-	39 J	4.4 J
Cadmium	-	210	mg/kg	6.5	8.5	1.9	2	-	-	14	16
Chromium ¹	-	350000	mg/kg	18	32	23	19	-	-	28	37
Copper	-	9400	mg/kg	330	800	180	160	-	-	1100	1400
Lead	-	400	mg/kg	3000	1300	360	320	730	500	2000	2400
Lead, Fine-Grained	-	400	mg/kg	1500	1200	600	760	-	-	1900	2000
Tin	-	140000	mg/kg	140	82	19	20	-	-	120	160
Zinc	-	70000	mg/kg	2800	3600	970	900	-	-	7200	6800
Mercury	-	28	mg/kg	0.35	0.63	0.21	0.3	-	-	1	1
TCLP Metals		,									
Lead, TCLP	5	-	mg/L	0.66	0.2	0.2	0.056	-	-	1.1	1
Miscellaneous Analy	/ses	1	1								
In Vitro Lead											
Bioaccessibility	-	-	% GLI	-	-	-	-	-	-	-	-
рН	-	-	SU	8	7.2	8	7.8	-	-	7.7	7.6

Notes:

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HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

RES1 SOIL SAMPLING RESULTS PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL

CHICAGO, COOK COUNTY, ILLINOIS

I											
			Field Sample ID	PA-122-01(0-6)-	PA-122-02(0-6)-	PA-127-01(0-6)-	PA-193-01(0-6)-	PA-370-01(0-6)-	PA-370-01(0-6)-	PA-370-02(0-6)-	PA-370-02(6-12)-
				050313	050313	050313	050313	050713	050713D	050713	050713
			Property ID	122-01	122-02	127-01	193-01	370-01	370-01	370-02	370-02
			Location of								
			Property Sampled	AA - Res1							
			Location of Sample								
			on Property	Back yard	Garden	Back yard	Back yard	Backyard	Backyard	Garden	Garden
			Sample Date	5/3/2013	5/3/2013	5/3/2013	5/3/2013	5/7/2013	5/7/2013	5/7/2013	5/7/2013
			Depth Interval	0-6	0-6	0.6	0.6	0.6	0-6	0-6	6 12
			(in bgs)	0-6	0-6	0-6	0-6	0-6	0-6	0-6	6-12
	40 CFR 261, Subpart C,	EPA RML for Res.									
Parameter	261.24 (b)	Soil, HQ 3	Unit								
Total Metals											
Antimony	-	94	mg/kg	2.3 U	3 J	2.6 J	2.3 U	4.6 U	4.8 U	5 U	4.5 U
Cadmium	-	210	mg/kg	6.7	4.5	7.6	2.3	6.9	5.5	6.2	8.7
Chromium ¹	-	350000	mg/kg	36	25	26	30	44	46	68	41
Copper	-	9400	mg/kg	540	290	520	210	150	150	220	310
Lead	-	400	mg/kg	1900	920	2500	580	700	950	1700	1700
Lead, Fine-Grained	-	400	mg/kg	2700	1400	2700	840	1200	1200	1000	2000
Tin	-	140000	mg/kg	57	38	61	19	28	25	38	49
Zinc	-	70000	mg/kg	3000	2400	3200	1000	1600	1100	1600	2300
Mercury	-	28	mg/kg	0.76	0.59	2.1	0.092	0.43	0.48	0.77	1.7
TCLP Metals											
Lead, TCLP	5	-	mg/L	0.49	0.47	0.94	0.019	0.33	0.27	0.4	0.36
Miscellaneous Analy	/ses										
In Vitro Lead											
Bioaccessibility	-	-	%	68	-	74.6	-	-	-	-	-
рН	-	-	SU	7	7.4	8.1	7.5	7.7	7.8	7.7	7.7

Notes:

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RES1 SOIL SAMPLING RESULTS

PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

			E. H.C. I ID	DA 275 01(0.6)	DA 275 02(0.12)	DA 122 01(10 24)	DA 122 01(10 24)	DA 122 01/(10)	DA 27(01(10 24)	DA 276 01(6.10)	DA 107 01/(01)
			Field Sample ID			PA-122-01(18-24)-	, , , , , , , , , , , , , , , , , , , ,	, , ,		, , ,	
				050713	050713	071513	071513D	071513	071513	071513	071613
			Property ID	375-01	375-02	122-01	122-01	122-01	276-01	276-01	127-01
			Location of								
			Property Sampled	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1	AA - Res1
			Location of Sample								
			on Property	Backyard	Garden	Backyard	Backyard	Backyard	Backyard	Backyard	Backyard
			Sample Date	5/7/2013	5/7/2013	7/15/2013	7/15/2013	7/15/2013	7/15/2013	7/15/2013	7/16/2013
			Depth Interval	0.6	0.12	10.24	10.24	C 10	10.24	C 10	(21
			(in bgs)	0-6	0-12	18-24	18-24	6-18	18-24	6-18	6-21
	40 CFR 261, Subpart C,	EPA RML for Res.									
Parameter	261.24 (b)	Soil, HQ 3	Unit								
Total Metals											
Antimony	-	94	mg/kg	4.9 U	25 U	5 U	4.6 U	4.9 U	5.5 J	6.6 J	4.4 UJ
Cadmium	-	210	mg/kg	11	14	2.6	1.5	9.2	4.3	13	7.9
Chromium ¹	-	350000	mg/kg	40	49	25 U	23 U	25 U	24 U	26 U	21
Copper	-	9400	mg/kg	680	750	110	75	590	370	1100	420
Lead	-	400	mg/kg	1800	2500	470	250	1900	550	1700	2500
Lead, Fine-Grained	-	400	mg/kg	2700	3000	420	440	1600	480	2000	4200
Tin	-	140000	mg/kg	84	130	32	22	130	440	130	67
Zinc	-	70000	mg/kg	2900	3300	710	430	2600	1600	4700	2700
Mercury	-	28	mg/kg	1	1.3	1.3	0.86	1.4	0.33	0.72	2.6
TCLP Metals											
Lead, TCLP	5	-	mg/L	0.16	0.4	-	-	-	-	-	-
Miscellaneous Analy	yses										
In Vitro Lead											
Bioaccessibility	-	-	%	77.8	-	-	-	-	-	-	-
рН	-	-	SU	7	7.3	-	-	-	-	-	-

Notes:

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RML = Removal Management Level

SU = Standard unit

RES2 SOIL SAMPLING RESULTS

PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

					o, cook coom	<u> </u>					
			Field Sample ID	PA-163-01(0-6)-	PA-163-02(0-6)-	PA-163-03(0-6)-	PA-104-01(0-6)-	PA-104-02(0-6)-	PA-105-01(0-6)-	PA-105-02(0-6)-	PA-105-03(0-6)-
				050113	050113	050113	050213	050213	050213	050213	050213
			Property ID	163-01	163-02	163-03	104-01	104-02	105-01	105-02	105-03
			Location of Property								
			Sampled	AA - Res2							
			Location of Sample								Replicate -
			on Property	Garden	Garden	Drip Zone	Front yard	Back yard	Front yard	Back yard	Back yard
			Sample Date	5/1/2013	5/1/2013	5/1/2013	5/2/2013	5/2/2013	5/2/2013	5/2/2013	5/2/2013
			Depth Interval (in bgs)	0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6
	40 CFR 261, Subpart C,	EPA RML for Res.									
Parameter	261.24 (b)	Soil, HQ 3	Unit								
Total Metals											
Antimony	-	94	mg/kg	2.4 U	2.4 U	2.4 U	2.3 J	2.8 J	2.2 UJ	2.3 U	-
Cadmium	-	210	mg/kg	0.6 U	0.89	0.82	6	7.6	2.1	2.6	-
Chromium ¹	-	350000	mg/kg	11	19	16	24	33	23	28	-
Copper	-	9400	mg/kg	23	32	29	190	340	99	240	-
Lead	-	400	mg/kg	19	130	130	930	1400	640	990	810
Lead, Fine-Grained	-	400	mg/kg	22	160	220	1100	1300	650	2100	-
Tin	-	140000	mg/kg	6 U	13	6.3	34	53	30 J	21	-
Zinc	-	70000	mg/kg	76	130	140	1500	2400	930	1100	-
Mercury	-	28	mg/kg	0.022 U	0.094	0.058	0.55	0.57	0.45	0.48	-
TCLP Metals											
Lead, TCLP	5	-	mg/L	0.005 U	0.014	0.005 U	0.42	0.36	0.23	0.25	-
Miscellaneous Analy	rses										
In Vitro Lead											
Bioaccessibility	-	-	% CH	-	- 0.1	-	-	-	-	-	-
рН	-	=	SU	7.9	8.1	8	7.9	6.2	7.7	7.5	-

Notes:



Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

¹RML is for chromium (III), no RML exists for total chromium

- = Not applicable or not analyzed

AA = Assessment Area

bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

RES2 SOIL SAMPLING RESULTS

PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

					0, COOK COCI	-,					
			Field Sample ID	PA-105-04(0-6)-	PA-123-01(0-12)-	PA-125-01(0-6)-	PA-125-02(0-6)-	PA-125-03(0-12)-	PA-125-04(0-6)-	PA-125-05(0-6)-	PA-141-01(0-6)-
				050213	050313	050313	050313	050313	050313	050313	050713
			Property ID	105-04	123-01	125-01	125-02	125-03	125-04	125-05	141-01
			Location of Property								
			Sampled	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2
			Location of Sample	Replicate -		Yard	Yard		Replicate -	Replicate -	Yard
			on Property	Back yard	Garden	(west 1/2 lot)	(east 1/2 lot)	Garden	Back yard	Back yard	(west 1/2 lot)
			Sample Date	5/2/2013	5/3/2013	5/3/2013	5/3/2013	5/3/2013	5/3/2013	5/3/2013	5/7/2013
			Depth Interval (in bgs)	()-6	0-12	0-6	0-6	0-12	0-6	0-6	0-6
	40 CFR 261, Subpart C,	EPA RML for Res.									
Parameter	261.24 (b)	Soil, HQ 3	Unit								
Total Metals											
Antimony	-	94	mg/kg	-	2.4 U	4.7 J	3.1 J	2.6 J	-	-	4.7 U
Cadmium	-	210	mg/kg	-	5.5	10	7.4	4.8	-	-	3.3
Chromium ¹	-	350000	mg/kg	-	27	61	51	29	-		33
Copper	-	9400	mg/kg	-	320	410	280	230	-	-	200
Lead	-	400	mg/kg	1500	1100	1500	1100	700	1200	1400	860
Lead, Fine-Grained	-	400	mg/kg	-	1400	1700	910	950	-	-	760
Tin	-	140000	mg/kg	-	46	63	50	31	-	-	39
Zinc	-	70000	mg/kg	-	1900	2900	2200	1500	-	-	700
Mercury	-	28	mg/kg	-	0.86	1.1	0.72	0.41	-	-	0.64
TCLP Metals											
Lead, TCLP	5	-	mg/L	-	0.16	0.37	0.32	0.09	-	-	0.22
Miscellaneous Analy	vses		_								
In Vitro Lead											
Bioaccessibility	-	-	%	-	-	-	-	-	-	-	-
рН	-	-	SU	-	7.8	6.7	8.2	7.7	7.5	7.4	8.1

Notes:



Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

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AA = Assessment Area

bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

RES2 SOIL SAMPLING RESULTS

PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

I											-
			Field Sample ID		PA-141-03(0-6)-	PA-349-01(0-6)-	PA-349-02(0-12)-	PA-349-03(0-6)-	PA-351-01(0-6)-	PA-369-01(0-2)-	PA-369-01(0-6)-
				050713	050713	050713	050713	050713	050713	050713	050713
			Property ID	141-02	141-03	349-01	349-02	349-03	351-01	369-01	369-01
			Location of Property								
			Sampled	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2
			Location of Sample	Yard							
			on Property	(east 1/2 lot)	Garden	Front yard	Garden	Backyard	Garden	Backyard	Backyard
			Sample Date	5/7/2013	5/7/2013	5/7/2013	5/7/2013	5/7/2013	5/7/2013	5/7/2013	5/7/2013
			Depth Interval	0-6	0-6	0-6	0-12	0-6	0-6	0-2	0-6
		TD A DIST A D	(in bgs)								
	40 CFR 261, Subpart C,										
Parameter	261.24 (b)	Soil, HQ 3	Unit								
Total Metals											
Antimony	-	94	mg/kg	4.6 U	4.6 U	5 U	5.2 U	4.2 U	4.3 UJ	4.8 U	5.3 U
Cadmium	-	210	mg/kg	3.5	5.9	5.4	2	2.5	1.1 U	1.2 U	7.5
Chromium ¹	-	350000	mg/kg	40	110	29	21	27	14	24 U	43
Copper	-	9400	mg/kg	190	220	250	100	99	58 J	100	440
Lead	-	400	mg/kg	1600	3300	890	630	1400	390	480	1500
Lead, Fine-Grained	-	400	mg/kg	1200	1400	1400	610	1500	580	890	2500
Tin	-	140000	mg/kg	26	43	28	17	19	11 U	12 U	52
Zinc	-	70000	mg/kg	970	1500	1800	650	930	490	560	1700
Mercury	-	28	mg/kg	0.95	0.56	0.46	0.25	0.49	0.28	0.23	0.73
TCLP Metals											
Lead, TCLP	5	-	mg/L	0.25	0.56	0.13	0.18	0.55	0.75	0.05	0.26
Miscellaneous Anal	vses										
In Vitro Lead											
Bioaccessibility	-	-	%	-	-	-	-	-	-	-	-
рН	-	-	SU	7.7	8	7	8	7.7	7.8	6.3	6.7

Notes:



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HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

RES2 SOIL SAMPLING RESULTS

PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

					o, cook coom	,					
			Field Sample ID	PA-369-02(0-12)-	PA-369-03,04(0-6)	PA-371-01(0-6)-	PA-371-02(0-6)-	PA-371-02(0-6)-	PA-84-01(0-6)-	PA-84-02(0-6)-	PA-84-02(0-6)-
				050713	050713	050713	050713	050713D	050813	050813	050813D
			Property ID	369-02	369-03,04	371-01	371-02	371-02	84-01	84-02	84-02
			Location of Property								
			Sampled	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2
i			Location of Sample								
i			on Property	Garden	Front yard	Backyard	Front yard	Front yard	Front yard	Backyard	Backyard
i			Sample Date	5/7/2013	5/7/2013	5/7/2013	5/7/2013	5/7/2013	5/8/2013	5/8/2013	5/8/2013
			Depth Interval (in bgs)	0-17	0-6	0-6	0-6	0-6	0-6	0-6	0-6
	40 CFR 261, Subpart C,	EPA RML for Res.									
Parameter	261.24 (b)	Soil, HQ 3	Unit								
Total Metals											
Antimony	-	94	mg/kg	4.7 U	4.6 U	5.1 U	5.3 U	5.3 U	4.5 U	4.5 U	4.5 U
Cadmium	-	210	mg/kg	6.9	5.8	7.7	1.3 U	1.3 U	2	4.5	3.6
Chromium ¹	-	350000	mg/kg	40	24	40	14	14	19	31	27
Copper	-	9400	mg/kg	560	410	450	54	51	56	110	82
Lead	-	400	mg/kg	1700	2300	1800	320	410	600	1100	740
Lead, Fine-Grained	-	400	mg/kg	2100	3500	2200	450	460	680	1100	920
Tin	-	140000	mg/kg	87	49	49	13 U	13 U	30	26	14
Zinc	-	70000	mg/kg	3000	2700	2800	360	330	470	880	700
Mercury	-	28	mg/kg	1	1.1	2	0.31	0.18	0.48	0.35	0.27
TCLP Metals											
Lead, TCLP	5	-	mg/L	0.41	1.2	0.24	0.024	0.033	0.087	0.15	0.092
Miscellaneous Analy	/ses										
In Vitro Lead											
Bioaccessibility	-	-	%	-	-	-	-	-	-	-	-
рН	-	-	SU	7.2	7.5	6.4	7.3	7.4	8	7.7	7.9

Notes:



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HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

RES2 SOIL SAMPLING RESULTS

PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

					o, cook coem	,					
			Field Sample ID	PA-84-04(0-6)-	PA-84-05(0-6)-	PA-92-01(0-6)-	PA-92-02(0-12)-	PA-466-05(0-6)-	PA-467-01(0-6)-	PA-468-01(0-6)-	PA-14-01(0-6)-
				050813	050813	050813	050813	050913	050913	050913	050913
			Property ID	84-04	84-05	92-01	92-02	466-05	467-01	468-01	14-01
			Location of Property								
			Sampled	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2
			Location of Sample	Replicate -	Replicate -						
			on Property	Front yard	Front yard	Backyard	Garden	Drip Zone	Backyard	Backyard	Backyard
			Sample Date	5/8/2013	5/8/2013	5/8/2013	5/8/2013	5/8/2013	5/8/2013	5/8/2013	5/9/2013
			Depth Interval (in bgs)	0-6	0-6	0-6	0-12	0-6	0-6	0-6	0-6
	40 CFR 261, Subpart C,	EPA RML for Res.									
Parameter	261.24 (b)	Soil, HQ 3	Unit								
Total Metals											
Antimony	-	94	mg/kg	-	-	4.5 U	4.8 U	5 U	5.2 J	5.2 J	4.7 U
Cadmium	-	210	mg/kg	-	-	4.9	2	8.5	7	5.9	1.2 U
Chromium ¹	-	350000	mg/kg	-	-	25	15	31	55	36	18
Copper	-	9400	mg/kg	-	-	170	83	460	250	290	55
Lead	-	400	mg/kg	530	360	880	400	2400	1400	1300	140
Lead, Fine-Grained	-	400	mg/kg	-	-	1000	250	3100	1600	960	200
Tin	-	140000	mg/kg	-	-	140	35	58	34	30	13
Zinc	-	70000	mg/kg	-	-	1300	550	2400	1600	1600	220
Mercury	-	28	mg/kg	-	-	0.76	0.25	2.1	0.62	0.64	0.093
TCLP Metals											
Lead, TCLP	5	-	mg/L	-	-	0.12	0.065	0.78	0.097	0.066	0.026
Miscellaneous Analy	yses										
In Vitro Lead											
Bioaccessibility	-	-	%	-	-	-	-	-	-	-	-
рН	-	-	SU	-	-	7.4	7.7	7.1	6.7	7.1	7.3

Notes:



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HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

RES2 SOIL SAMPLING RESULTS PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL

CHICAGO, COOK COUNTY, ILLINOIS

			Field Sample ID		PA-14-03(0-6)-	PA-304-01(0-6)-	PA-466-01(0-6)-	PA-466-02(0-6)-	PA-466-03(0-6)-	PA-466-04(0-6)-	PA-470-01(0-6)-
				050913	050913	050913	050913	050913	050913	050913	070913
			Property ID	14-02	14-03	304-01	466-01	466-02	466-03	466-04	470-01
			Location of Property								
			Sampled	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2
			Location of Sample				Yard	Yard	Replicate - yard	Replicate - yard	
			on Property	Front yard	Drip Zone	Backyard	(east 1/2 lot)	(west 1/2 lot)	(east 1/2 lot)	(east 1/2 lot)	Backyard
			Sample Date	5/9/2013	5/9/2013	5/9/2013	5/9/2013	5/9/2013	5/9/2013	5/9/2013	7/9/2013
			Depth Interval (in bgs)	0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6
	40 CFR 261, Subpart C,	EPA RML for Res.									
Parameter	261.24 (b)	Soil, HQ 3	Unit								
Total Metals											
Antimony	-	94	mg/kg	5.9 U	5 U	4.2 UJ	4.5 U	4.3 U	-	-	5.2 U
Cadmium	-	210	mg/kg	1.5 U	1.7	1 U	3.4	2.8	-	-	12
Chromium ¹	-	350000	mg/kg	24	15	13	23	47	-	-	39
Copper	-	9400	mg/kg	96	110	27	210	120	-	-	430
Lead	-	400	mg/kg	480	710	58	730	650	700	580	3200
Lead, Fine-Grained	-	400	mg/kg	560	980	77	870	750	-	-	3300
Tin	-	140000	mg/kg	15 U	12 U	10 U	25	23	-	-	120
Zinc	-	70000	mg/kg	520	530	130	900	780	-	-	3500
Mercury	-	28	mg/kg	0.2	0.2	0.067	0.59	0.52	-	-	1.2
TCLP Metals											
Lead, TCLP	5	-	mg/L	0.074	0.37	0.0092 U	0.04	0.061	-	-	-
Miscellaneous Anal	vses										
In Vitro Lead											
Bioaccessibility	-	-	%	-	-	-	63.9	-	-	-	-
рН	-	-	SU	7.4	7.4	7.6	7.8	7.9	-	-	-

Notes:



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ft = feet

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SU = Standard unit

RES2 SOIL SAMPLING RESULTS PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL

CHICAGO, COOK COUNTY, ILLINOIS

				ешендо, соог	,					
			Field Sample ID	PA-92-01(12-24)-	PA-92-01(6-12)-	PA-483-01(0-6)-	PA-483-01(6-24)-	PA-104-01(12-24)-	PA-104-01(6-12)-	PA-349-03(6-14)-
				070913	070913	071213	071213	071613	071613	071613
			Property ID	92-01	92-01	483-01	483-01	104-01	104-01	349-03
			Location of Property							
			Sampled	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2	AA - Res2
			Location of Sample							
			on Property	Backyard	Backyard	Backyard	Backyard	Front yard	Front yard	Backyard
			Sample Date	7/9/2013	7/9/2013	7/12/2013	7/12/2013	7/16/2013	7/16/2013	7/16/2013
			Depth Interval (in bgs)	17-74	6-12	0-6	6-24	12-24	6-12	6-14
	40 CFR 261, Subpart C,	EPA RML for Res.								
Parameter	261.24 (b)	Soil, HQ 3	Unit							
Total Metals										
Antimony	-	94	mg/kg	4.3 U	4.7 U	4.1 U	4 U	4.7 U	4.6 U	4.1 U
Cadmium	-	210	mg/kg	3.2	2.3	1.2	1 U	4.9	5.8	2
Chromium ¹		350000	mg/kg	23	18	17	11	24 U	23 U	20 U
Copper	-	9400	mg/kg	140	88	35	17	67	190	63
Lead	-	400	mg/kg	890	550	200	140	500	1200	680
Lead, Fine-Grained	-	400	mg/kg	850	920	320	220	470	890	990
Tin	-	140000	mg/kg	35	22	10 U	10 U	17	68	14
Zinc	-	70000	mg/kg	1000	650	180	120	630	1100	390
Mercury	-	28	mg/kg	2.5	1.4	0.074	0.061	0.31	0.9	0.31
TCLP Metals										
Lead, TCLP	5	-	mg/L	-	-	-	-	-	-	-
Miscellaneous Analy	ses									
In Vitro Lead	!									
Bioaccessibility	-	-	%	-	-	-	-	-	-	-
рН	-	-	SU	•	-	-	-	-	-	-

Notes:

Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

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bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

RES3 SOIL SAMPLING RESULTS PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL

CHICAGO, COOK COUNTY, ILLINOIS

			Field Sample ID	PA-464-01(0-6)-	PA-464-02(0-6)-	PA-464-03(0-12)-	PA-464-04(0-12)-	PA-464-04(0-12)-	PA-464-05(0-6)-	PA-464-06(0-6)-
				050813	050813	050813	050813	050813D	050813	050813
			Property ID	464-01	464-02	464-03	464-04	464-04	464-05	464-06
			Location of Property							
			Sampled	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3
			Location of Sample						Replicate - yard (east	Replicate - yard (east
			on Property	Yard (east 1/2 lot)	Yard (west 1/2 lot)	Garden	Garden	Garden	1/2 lot)	1/2 lot)
			Sample Date	5/8/2013	5/8/2013	5/8/2013	5/8/2013	5/8/2013	5/8/2013	5/8/2013
			Depth Interval (in bgs)	()-6	0-6	0-12	0-12	0-12	0-6	0-6
	40 CFR 261, Subpart	EPA RML for Res.	(8 /							
Parameter	C, 261.24 (b)	Soil, HQ 3	Unit							
Total Metals										
Antimony	-	94	mg/kg	8.6 J	4.3 U	4.8	4.8 U	4.9 U	-	-
Cadmium	-	210	mg/kg	3.2	1.9	9.4	38	35	-	-
Chromium ¹	-	350000	mg/kg	21	22	72	340	300	-	-
Copper	-	9400	mg/kg	170	74	150	260	240	-	-
Lead	-	400	mg/kg	910	240	670	450	390	1100	510
Lead, Fine-Grained	-	400	mg/kg	1300	350	990	500	510	-	-
Tin	-	140000	mg/kg	36	15	29	38	33	-	-
Zinc	-	70000	mg/kg	750	260	620	940	870	-	-
Mercury	-	28	mg/kg	0.45	0.18	0.45	2	1.5	-	-
TCLP Metals										
Lead, TCLP	5	-	mg/L	0.058	0.016	0.16	0.036	0.036	-	-
Miscellaneous Analy	yses									
In Vitro Lead										
Bioaccessibility	-	-	%	-	-	-	-	-	-	-
рН	-	-	SU	7.1	7.4	7.7	7.8	7.7	-	-

Notes:

Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

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AA = Assessment Area

bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

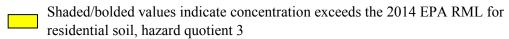
SU = Standard unit

TABLE 4-3 RES3 SOIL SAMPLING RESULTS

PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

Tr.										
			Field Sample ID	PA-465-01(0-6)-	PA-465-01(0-6)-	PA-465-02,03,04(0-12)-	PA-469-01(0-6)-	PA-469-01(0-6)-	PA-469-02(0-6)-	PA-469-03(0-6)-
				050913	050913D	050913	051013	051013D	051013	051013
			Property ID	465-01	465-01	465-02,03,04	469-01	469-01	469-02	469-03
			Location of Property							
			Sampled	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3
			Location of Sample				Field - northeast	Field - northwest	Field - northeast	Field - southwest
			on Property	Yard	Yard	Garden	quadrant	quadrant	quadrant	quadrant
			Sample Date	5/9/2013	5/9/2013	5/9/2013	5/10/2013	5/10/2013	5/10/2013	5/10/2013
			Depth Interval (in bgs)	0-6	0-6	0-12	0-6	0-6	0-6	0-6
	40 CFR 261, Subpart	EPA RML for Res.	, 8 /							
Parameter	C, 261.24 (b)	Soil, HQ 3	Unit							
Total Metals										
Antimony	-	94	mg/kg	4.7 U	4.4 U	4.7 U	4.5 U	4.8 U	4.6 U	4.9 U
Cadmium	-	210	mg/kg	1.7	1.5	1.5	1.1 U	1.2 U	1.1 U	1.2 U
Chromium ¹	-	350000	mg/kg	46	56	26	35	23	17	19
Copper	-	9400	mg/kg	84	87	53	56	49	44	50
Lead	-	400	mg/kg	370	340	350	130	120	100	120
Lead, Fine-Grained	•	400	mg/kg	400	400	400	160	150	170	180
Tin	•	140000	mg/kg	17	14	13	14 UJ	13 UJ	13 UJ	17 UJ
Zinc	-	70000	mg/kg	300	310	310	180	170	170	160
Mercury	-	28	mg/kg	0.38	0.45	0.33	0.67	0.49	0.25	0.2
TCLP Metals										
Lead, TCLP	5	-	mg/L	0.05	0.067	0.063	0.019 U	0.016 U	0.012 U	0.012 U
Miscellaneous Analy	ses									
In Vitro Lead										
Bioaccessibility	-	-	%	-	-	-	-	-	-	-
рН	-	-	SU	7.8	7.8	7.7	7.8	7.7	7.8	7.5

Notes:



¹RML is for chromium (III), no RML exists for total chromium

- = Not applicable or not analyzed

AA = Assessment Area

bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

RES3 SOIL SAMPLING RESULTS PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

			Field Sample ID	PA-469-04(0-6)-	PA-469-04(0-6)-	PA-469-05(0-6)-	PA-469-01(6-15)-	PA-469-02(6-15)-	PA-469-03(6-15)-	PA-469-03(6-15)-
				051013	051013D	051013	071113	071113	071113	071113D
			Property ID	469-04	469-04	469-05	469-01	469-02	469-03	469-03
			Location of Property							
			Sampled	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3
			Location of Sample	Field - southeast	Field - southeast		Field - northwest	Field - northeast	Field - southwest	Field - southwest
			on Property	quadrant	quadrant	Playground	quadrant	quadrant	quadrant	quadrant
			Sample Date	5/10/2013	5/10/2013	5/10/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
			Depth Interval (in bgs)	0-6	0-6	0-6	6-15	6-15	6-15	6-15
	40 CFR 261, Subpart	EPA RML for Res.	(=== /= 8=/							
Parameter	C, 261.24 (b)	Soil, HQ 3	Unit							
Total Metals										
Antimony	-	94	mg/kg	4.8 U	5.1 U	5.1 UJ	3.9 U	4.1 J	4.4 U	4.4 U
Cadmium	-	210	mg/kg	1.2 U	1.3 U	1.3 U	1.1	1.2	1.1	1.2
Chromium ¹	-	350000	mg/kg	34	19	12	20	14	15	16
Copper	-	9400	mg/kg	59	41	94 J	93	190	90	86
Lead	-	400	mg/kg	110	80	340	340	330	560	250
Lead, Fine-Grained	-	400	mg/kg	120	110	330	380	480	340	370
Tin	-	140000	mg/kg	12 UJ	13 U	22 UJ	36	40	24	26
Zinc	-	70000	mg/kg	190	150	360	270	250	270	290
Mercury	-	28	mg/kg	0.17	0.13	0.28	0.68	1.2	0.5	0.57
TCLP Metals										
Lead, TCLP	5	-	mg/L	0.0082 U	0.0095 U	0.57	-	-	-	-
Miscellaneous Analy	ses									
In Vitro Lead										
Bioaccessibility	-	-	%	-	-	55.6	-	-	-	-
рН	-	-	SU	7.6	7.6	8	-	-	-	-

Notes:

Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

¹RML is for chromium (III), no RML exists for total chromium

- = Not applicable or not analyzed

AA = Assessment Area

bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

RES3 SOIL SAMPLING RESULTS PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

			E:-11 C1 ID	T. 100 01 (0.5)		D. 10.7.01/0.5		D. 105.01/0.5	D. 10=01/0 0	T. 100.01/0.5
			Field Sample ID	PA-482-01(0-6)-	PA-482-01(6-18)-	PA-495-01(0-6)-	PA-495-01(6-24)-	PA-496-01(0-6)-	PA-497-01(0-6)-	PA-498-01(0-6)-
				071113	071113	081313	081313	081313	081313	081313
			Property ID	482-01	482-01	495-01	495-01	496-01	497-01	498-01
			Location of Property							
			Sampled	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3
			Location of Sample							
			on Property	Frontyard	Frontyard	Backyard	Backyard	Backyard	Backyard	Backyard
			Sample Date	7/11/2013	7/11/2013	8/13/2013	8/13/2013	8/13/2013	8/13/2013	8/13/2013
			Depth Interval	0.6	6.10	0.6	6.24	0.6	0.6	
			(in bgs)	0-6	6-18	0-6	6-24	0-6	0-6	0-6
	40 CFR 261, Subpart	EPA RML for Res.								
Parameter	C, 261.24 (b)	Soil, HQ 3	Unit							
Total Metals										
Antimony	-	94	mg/kg	4.5 U	4.4 U	3.8 U	4 U	4.4 U	4.4 U	3.9 U
Cadmium	-	210	mg/kg	3.7	5.2	2.6	3.6	2.8	2.2	1.5
Chromium ¹	-	350000	mg/kg	24	21	25	21	19	18	16
Copper	-	9400	mg/kg	66	53	56	180	64	53	38
Lead	-	400	mg/kg	210	250	930	1800	230	460	270
Lead, Fine-Grained	-	400	mg/kg	200	320	1000	1800	360	460	340
Tin	-	140000	mg/kg	13	11 U	16	50	11	15	9.7 U
Zinc	-	70000	mg/kg	380	300	430	720	380	350	200
Mercury	-	28	mg/kg	0.094	0.12	0.31	0.49	0.12	0.4	0.17
TCLP Metals										
Lead, TCLP	5	-	mg/L	-	-	-	-	-	-	-
Miscellaneous Analy	rses	•								
In Vitro Lead										
Bioaccessibility	-	-	%	-	-	-	-	-	-	-
рН	-	-	SU	-	-	_	-	-	-	-

Notes:

Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

¹RML is for chromium (III), no RML exists for total chromium

- = Not applicable or not analyzed

AA = Assessment Area

bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

TABLE 4-3 RES3 SOIL SAMPLING RESULTS

PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

					COOK COUNTY, IE					
<u> </u>			Field Sample ID	PA-498-01(0-6)-	PA-498-01(6-15)-	PA-499-01(0-6)-	PA-504-01(0-6)-	PA-505-01(0-6)-	PA-505-01(0-6)-	PA-506-01(0-6)-
				081313D	081313	081413	081513	081513	081513D	081513
1			Property ID	498-01	498-01	499-01	504-01	505-01	505-01	506-01
			Location of Property							
			Sampled	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3
			Location of Sample							
1			on Property	Backyard	Backyard	Frontyard	Frontyard	Backyard	Backyard	Backyard
1			Sample Date	8/13/2013	8/13/2013	8/14/2013	8/15/2013	8/15/2013	8/15/2013	8/15/2013
			Depth Interval (in bgs)	0-6	6-15	0-6	0-6	0-6	0-6	0-6
	40 CFR 261, Subpart	EPA RML for Res.								
Parameter	C, 261.24 (b)	Soil, HQ 3	Unit							
Total Metals										
Antimony	-	94	mg/kg	4.3 U	4.4 U	4.5 UJ	4.8 U	5.3 U	4.5 U	4.6 U
Cadmium	-	210	mg/kg	1.5	1.9	2.5	1.8	5.5	6	4.1
Chromium ¹	-	350000	mg/kg	14	14	14	21	53	35	28
Copper	-	9400	mg/kg	36	41	86	41	170	180	94
Lead	-	400	mg/kg	280	550	1200	390	1300	1400	940
Lead, Fine-Grained	-	400	mg/kg	330	640	1100	330	1900	1600	1400
Tin	-	140000	mg/kg	11 U	14	26 J	26	33	30	17
Zinc	-	70000	mg/kg	200	380	500	240	1300	1300	780
Mercury	-	28	mg/kg	0.17	0.31	0.65 J	0.19	0.97	0.87	0.99
TCLP Metals										
Lead, TCLP	5	-	mg/L	-	-	-	-	-	-	-
Miscellaneous Analy	rses	<u> </u>								
In Vitro Lead										
Bioaccessibility	-	-	%	-	-	-	-	-	-	-
рН	-	-	SU	-	-	-	-	-	-	-

Notes:



Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

¹RML is for chromium (III), no RML exists for total chromium

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bgs = Below ground surface

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ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

RES3 SOIL SAMPLING RESULTS PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL

CHICAGO, COOK COUNTY, ILLINOIS

			Field Sample ID	PA-508-01(0-6)-	PA-508-01(6-24)-	PA-509-01(0-6)-	PA-510-01(0-6)-	PA-514-01(0-6)-	PA-514-01(6-24)-	PA-515-01(0-6)-
				081513	081513	081513	081513	081613	081613	081613
			Property ID	508-01	508-01	509-01	510-01	514-01	514-01	515-01
			Location of Property							
			Sampled	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3	AA - Res-3
			Location of Sample							
			on Property	Backyard	Backyard	Backyard	Frontyard	Backyard	Backyard	Frontyard
			Sample Date	8/15/2013	8/15/2013	8/15/2013	8/15/2013	8/16/2013	8/16/2013	8/16/2013
			Depth Interval (in bgs)	0-6	6-24	0-6	0-6	0-6	6-24	0-6
	40 CFR 261, Subpart	EPA RML for Res.	\ 8 /							
Parameter	C, 261.24 (b)	Soil, HQ 3	Unit							
Total Metals										
Antimony	-	94	mg/kg	4.4 U	4.1 U	5 U	4.3 U	4.3 U	4.7 U	9.2 J
Cadmium	-	210	mg/kg	2.7	1.8	4.7	4.1	2.1	3.7	7.4
Chromium ¹	-	350000	mg/kg	26	9	40	28	23	24	22
Copper	-	9400	mg/kg	52	25	120	100	59	92	140
Lead	-	400	mg/kg	580	140	1400	1700	410	760	1600
Lead, Fine-Grained	-	400	mg/kg	290	110	1400	2200	430	830	1600
Tin	-	140000	mg/kg	11 U	12	53	25	11 U	31	29 J
Zinc	-	70000	mg/kg	400	210	830	790	370	1700	1100
Mercury	-	28	mg/kg	0.48	0.34	1.2	0.99	0.28	0.63	0.89 J
TCLP Metals										
Lead, TCLP	5	-	mg/L	-	-	-	-	-	-	-
Miscellaneous Analy	ses									
In Vitro Lead										
Bioaccessibility	-	-	%	-	-	-	-	-	-	-
pН	-	-	SU	-	-	-	-	-	-	-

Notes:



Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

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bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

SU = Standard unit

HARRISON PARK REFERENCE AREA SOIL SAMPLING RESULTS PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

F											
		Field Sample ID	PA-471-01(0-6)-	PA-472-01(0-6)-	PA-472-01(0-6)-	PA-473-01(0-6)-	PA-473-01(18-24)-	PA-473-01(6-18)-	PA-474-01(0-6)-	PA-474-01(6-18)-	PA-474-02(0-6)-
			070913	070913	070913D	070913	070913	070913	071013	071013	071013
		Location ID	471-01	472-01	472-01	473-01	473-01	473-01	474-01	474-01	474-02
		Location of Sample on									
		Property	Backyard	Backyard	Backyard	Backyard	Backyard	Backyard	Backyard	Backyard	Frontyard
		Sample Date	7/9/2013	7/9/2013	7/9/2013	7/9/2013	7/9/2013	7/9/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval									
		(in bgs)	0-6	0-6	0-6	0-6	18- 24	6- 18	0-6	6- 18	0-6
	EPA RML for										
Parameter	Res. Soil, HQ 3	Unit									
Total Metals											
Antimony	94	mg/kg	5.4 U	4.6 U	4.9 U	5.2 U	4.3 U	4.9 U	5.1 U	5.3 U	4.9 UJ
Cadmium	210	mg/kg	7.2	5.6	4.7	9.1	1.1 U	5.8	3.5	4.2	3.1
Chromium ¹	350000	mg/kg	46	45	49	87	19	47	34	32	26
Copper	9400	mg/kg	230	130	140	160	37	150	130	170	95
Lead	400	mg/kg	1900	940	1200	1700	140	1600	2600	2300	2200
Lead, Fine-Grained	400	mg/kg	1800	1100	1000	1600	170	1300	2000	2400	3300
Tin	140000	mg/kg	40	52	160	43	11 U	39	180	130	24
Zinc	70000	mg/kg	2000	1100	730	970	150	880	870	1200	740
Mercury	28	mg/kg	1	0.67	0.68	1.1	0.99	1.4	0.6	1.2	0.79 J

Notes:



Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

¹RML is for chromium (III), no RML exists for total chromium

- = Not applicable or not analyzed

bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

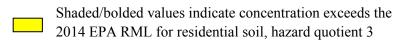
mg/kg = milligram per kilogram

RML = Removal Management Level

HARRISON PARK REFERENCE AREA SOIL SAMPLING RESULTS PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

		Field Sample ID	PA-477-01(6-18)-	PA-478-01(0-6)-	PA-478-01(0-6)-	PA-479-01(0-6)-	PA-480-01(0-6)-	(/	PA-486-01(6-24)-	PA-487-01(0-6)-	PA-488-01(0-6)-
			071013	071013	071013D	071113	071113	071113	071213D	071513	071513
		Location ID	477-01	478-01	478-01	479-01	480-01	481-01	486-01	487-01	488-01
		Location of Sample on									
		Property	Backyard	Front/Back Comp.	Front/Back Comp.	Front yard	Front yard	Backyard	Backyard	Backyard	Front yard
		Sample Date		7/10/2013	7/10/2013	7/11/2013	7/11/2013	7/11/2013	7/12/2013	7/15/2013	7/15/2013
		Depth Interval									
		(in bgs)	6- 18	0-6	0-6	0-6	0-6	0-6	6- 24	0-6	0-6
	EPA RML for										
Parameter	Res. Soil, HQ 3	Unit									
Total Metals											
Antimony	94	mg/kg	5 U	4.3 U	4.9 U	4.3 U	4.8 U	4.5 U	4.5 U	5 U	4.7 U
Cadmium	210	mg/kg	4.1	17	19	5.3	4.9	5.4	5.2	3.1	1.7
Chromium ¹	350000	mg/kg	32	220	190	53	58	30	28	25 U	24 U
Copper	9400	mg/kg	100	230	260	140	180	120	160	140	56
Lead	400	mg/kg	1100	1400	1700	1200	3200	1600	960	1400	410
Lead, Fine-Grained	400	mg/kg	1300	1500	1500	1600	3600	2000	1100	770	790
Tin	140000	mg/kg	24	42	55	33	37	36	29	65	17
Zinc	70000	mg/kg	810	1400	1800	970	1300	1300	1000	600	390
Mercury	28	mg/kg	0.62	2	1.7	0.54	0.62	2.1	0.4	0.58	0.27

Notes:



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- = Not applicable or not analyzed

bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

HARRISON PARK REFERENCE AREA SOIL SAMPLING RESULTS PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

		Field Sample ID	PA-484-01(0-6)-	PA-484-01(6-18)-	PA-485-01(0-6)-	PA-486-01(0-6)-	PA-486-01(6-24)-	PA-475-01(0-6)-	PA-476-01(0-6)-	PA-477-01(0-6)-
			071213	071213	071213	071213	071213	071013	071013	071013
		Location ID	484-01	484-01	485-01	486-01	486-01	475-01	476-01	477-01
		Location of Sample on								
		Property	Backyard	Backyard	Backyard	Backyard	Backyard	Backyard	Backyard	Backyard
		Sample Date	7/12/2013	7/12/2013	7/12/2013	7/12/2013	7/12/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval								
		(in bgs)	0-6	6- 18	0-6	0-6	6- 24	0-6	0-6	0-6
	EPA RML for									
Parameter	Res. Soil, HQ 3	Unit								
Total Metals										
Antimony	94	mg/kg	5.4 J	9.9 J	4.8 U	4.7 U	5.2 U	5 U	5 U	5.1 U
Cadmium	210	mg/kg	75	21 J	1.8	4.4	5.3	6.6	8.5	4.1
Chromium ¹	350000	mg/kg	770	91	21	32	31	53	34	42
Copper	9400	mg/kg	740	580	100	130	160	160	170	98
Lead	400	mg/kg	1700	4300	510	880	1100	3700	2000	1700
Lead, Fine-Grained	400	mg/kg	2500	5500	650	1100	1200	3100	1900	980
Tin	140000	mg/kg	110	180	12 U	26	33	55	32	26
Zinc	70000	mg/kg	2300	3700	390	840	1000	1700	1800	720
Mercury	28	mg/kg	4.6	1.6	0.29	0.37	0.59	0.76	0.92	0.69

Notes:



Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

¹RML is for chromium (III), no RML exists for total chromium

- = Not applicable or not analyzed

bgs = Below ground surface

HQ = Hazard quotient

ID = Identification

ft = feet

mg/kg = milligram per kilogram

RML = Removal Management Level

LITTLE ITALY REFERENCE AREA SOIL SAMPLING RESULTS PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL CHICAGO, COOK COUNTY, ILLINOIS

		Field Sample ID	PA-489-01(0-6)-	PA-489-01(6-18)-	PA-490-01(0-6)-	PA-491-01(0-6)-	PA-491-01(6-18)-	PA-491-01(6-18)-	PA-492-01(0-6)-	PA-493-01(0-6)-
		-	081213	081213	081213	081213	081213	081213D	081313	081313
		Property ID	489	489	490	491	491	491	492	493
	Location of Sample o									
		Property	Frontyard	Frontyard	Frontyard	Frontyard	Frontyard	Frontyard	Frontyard	Frontyard
		Sample Date	8/12/2013	8/12/2013	8/12/2013	8/12/2013	8/12/2013	8/12/2013	8/13/2013	8/13/2013
		Depth Interval (in bgs)	0-6	6-18	0-6	0-6	6-18	6-18	0-6	0-6
	EPA RML for Res.									
Parameter	Soil, HQ 3	Unit								
Total Metals										
Antimony	94	mg/kg	4.2 U	4.4 U	4.4 U	4.8 U	4.5 U	4.1 U	4.4 U	4.3 U
Cadmium	210	mg/kg	1.4	1.4	1.6	1.8	1.6	1.5	2.7	1.8
Chromium ¹	350000	mg/kg	17	18	19	21	36	17	24	16
Copper	9400	mg/kg	30	28	33	68	71	65	66	45
Lead	400	mg/kg	160	92	220	260	270	260	260	190
Lead, Fine-Grained	400	mg/kg	160	150	230	280	400	390	210	210
Tin	140000	mg/kg	10 U	11 U	11 U	16	15	16	13	11 U
Zinc	70000	mg/kg	140	120	150	270	250	230	210	170
Mercury	28	mg/kg	0.14	0.13	0.29	0.42	0.6	0.66	0.33	0.39

		Field Sample ID	PA-494-01(0-6)-	PA-500-01(0-6)-	PA-500-01(6-24)-	PA-501-01(0-6)-	PA-511-01(0-6)-	PA-512-01(0-6)-	PA-513-01(0-6)-	PA-513-01(0-6)-
			081313	081413	081413	081413	081613	081613	081613	081613D
		Location ID	494	500	500	501	511	512	513	513
		Sample Date	8/13/2013	8/14/2013	8/14/2013	8/14/2013	8/16/2013	8/16/2013	8/16/2013	8/16/2013
		Location of Sample on	Backyard Common							
		Property	Area	Backyard	Backyard	Frontyard	Frontyard	Frontyard	Frontyard	Frontyard
		Depth Interval (in bgs)	0-6	0-6	6-24	0-6	0-6	0-6	0-6	0-6
	EPA RML for Res.									
Parameter	Soil, HQ 3	Unit								
Total Metals										
Antimony	94	mg/kg	4.6 U	4.4 U	3.9 U	5.2 U	4.4 U	4.7 U	4.2 U	4.2 U
Cadmium	210	mg/kg	2	3.4	3.1	1.4	1.7	1.7	1.4	1.3
Chromium ¹	350000	mg/kg	33	26	22	22	21	19	31	23
Copper	9400	mg/kg	46	72	88	28	40	37	45	42
Lead	400	mg/kg	120	760	930	66	210	320	170	140
Lead, Fine-Grained	400	mg/kg	110	1300	1400	66	370	520	230	210
Tin	140000	mg/kg	12 U	27	28	13 U	11 U	12 U	10 U	10 U
Zinc	70000	mg/kg	170	620	690	150	170	230	200	200
Mercury	28	mg/kg	0.17	0.88	1.7	0.081	0.2	0.27	0.2	0.28

Notes:

Shaded/bolded values indicate concentration exceeds the 2014 EPA RML for residential soil, hazard quotient 3

¹RML is for chromium (III), no RML exists for total chromium
-= Not applicable or not analyzed Res. = Residential

 $bgs = Below ground surface \\ HQ = Hazard quotient \\ mg/kg = milligram per kilogram \\ RML = Removal Action Levels$

ID = Identification U = Constituent not detected. Reporting limit is presented.

in = Inches

TABLE 5-1
H. KRAMER BAGHOUSE SAMPLING RESULTS
PILSEN SOIL ASSESSMENT AREA: RESIDENTIAL
CHICAGO, COOK COUNTY, ILLINOIS

	Sample ID ¹	BH-1 N105006-05	BH-2 N105006-06	BH-4 N105006-08	BH-4 N105006-09	BH-5 N105006-07	
	_	Split B					
	Date	7/9/2012	7/9/2012	7/9/2012	7/9/2012	7/9/2012	Average Ratio
Metal	Unit						
Antimony	mg/kg	75	68	180	140	49	-
Cadmium	mg/kg	1500	1100	510	500	700	-
Chromium	mg/kg	44	90	92	71	18 U	-
Copper	mg/kg	12000	12000	62000	61000	4400 U	-
Lead	mg/kg	51000	42000	12000	13000	34000	-
Mercury	mg/kg	2.6	0.52	3.2	1.8	5.2	-
Tin	mg/kg	5800	11000	5800	5100	6300	-
Zinc	mg/kg	600000	550000	400000	480000	650000	-
Meta/Lead Ratio							
Zinc/Lead	-	11.76	13.10	33.33	36.92	19.12	22.85

Notes

- = Not applicable

ID = Identification

mg/kg = Milligram per kilogram

¹Samples collected by EPA Air and Radiation Division, submitted for analysis by EPA National Enforcement Investigation Center, and validated by Weston Solutions, Inc.

APPENDIX A LABORATORY ANALYTICAL REPORTS AND DATA VALIDATION REPORTS

PILSEN AREA SOIL SITE CHICAGO, ILLINOIS DATA VALIDATION REPORT

Date: June 3, 2013

Laboratory: STAT Analysis Corporation (STAT), Chicago, Illinois

Laboratory Project #: 13050170

Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund

Technical Assessment and Response Team (START)

Analytical TDD and Work Order #: S05-0001-1211-003/20405.016.001.2038.00

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for 35 soil samples collected for the Pilsen Area Soil Site that were analyzed for the following parameters and U.S. Environmental Protection Agency methods:

- Total Metals by SW-846 Methods 6020 and 7471A
- Fine Grained Lead by SW-846 Method 6020
- Bioavailablity Lead by EPA Method 9200 and SW-846 Method 6020
- Toxicity Characteristic Leaching Procedure (TCLP) Lead by SW-846 Methods 1311 and 6020
- pH by SW-846 Method 9045C
- Moisture Content by ASTM D2974

A level II data package was requested from STAT. The data validation was conducted in general accordance with the EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

TOTAL METALS AND FINE GRAINED LEAD BY EPA SW-846 METHODS 6020 AND 7471A AND BIOAVAILABLE LEAD BY EPA METHOD 9200 AND SW-846 METHOD 6020

1. <u>Samples</u>

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. Holding Times

The samples were analyzed within the required holding time limit of 28 days for mercury and 180 days from sample collection to analysis for all other metals.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050170

3. Blank Results

Method blanks were analyzed with the metals analyses. The blanks contained no metals contamination above the reporting limits. There were detections of some metals below the reporting limits in the blanks. However, the sample results were much greater or contained no detections of these metals. No qualifications were required.

4. <u>Laboratory Control Sample (LCS) Results</u>

The LCS recoveries were within the quality control (QC) limits except for as follows.

Antimony was detected high. Detected antimony results were flagged "J" as estimated.

5. Matrix Spike (MS) and MS Duplicate (MSD) Results

STAT analyzed several site-specific MS/MSDs. The percent recoveries and relative percent differences (RPD) were within QC limits except for as follows.

In many instances of QC limits not being met, the sample concentration was more than four times the spike amount. In these instances, no qualifications were required.

In the MS and MSD of sample PA-105-01(0-6)-050213, the antimony and tin recoveries were low. The tin result in this sample was flagged "J" and the quantitation limit for antimony was flagged "UJ" as estimated.

6. Field Duplicate Results

There are two field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. There is no established QC limit for RPD for field duplicates; however, 50 RPD is generally used for evaluation. Most of the RPDs for detected metals were below 50 which is acceptable.

The exception was antimony in field duplicate PA-191-01(0-6)-050213D had an RPD of 159 which is high indicating sample heterogeneity associated with antimony in this sample.

7. Overall Assessment

The metals data are acceptable for use as qualified based on the information received.

TCLP METALS BY EPA SW-846 METHODS 1311 AND 6020

1. Samples

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. Holding Times

The samples were analyzed within the required holding time limit of 180 days from sample collection.

3. Blank Results

Method blanks were analyzed with the metals analyses. Some of the blanks contained some minor lead contamination. However, the TCLP lead results were much greater than the blank results and no qualifications were required.

4. LCS Results

The LCS recoveries were within the QC limits.

5. MS and MSD Results

STAT analyzed two site-specific MS/MSD samples. The percent recoveries and RPDs were within QC limits except for as follows.

6. Field Duplicate Results

There are two field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. The RPDs were below 50 which is acceptable.

7. Overall Assessment

The TCLP lead data are acceptable for use based on the information received.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation

Laboratory Project #: 13050170

GENERAL CHEMISTRY PARAMETERS (pH by SW-846 Method 9045C and Moisture Content by ASTM D2974)

1. Samples

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. Holding Times

The holding time for pH is "as soon as possible" and the holding time for moisture is 28 days. The holding time for moisture was met. For pH, the samples were analyzed approximately 8-9 days from sample collection. No qualifications were applied.

3. Blank Results

Method blanks were analyzed with the moisture analyses and were all non-detect for moisture which is acceptable.

4. LCS Results

LCSs were analyzed with the moisture analyses. The LCS recoveries were within the QC limits.

5. <u>Laboratory Duplicates</u>

Laboratory duplicates were analyzed with the pH and moisture analyses. The RPDs were within QC limits.

6. Field Duplicate Results

There are two field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. The RPDs were below 50 which is acceptable.

7. Overall Assessment

The pH and moisture data are acceptable for use as qualified based on the information received.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050170

ATTACHMENT A SAMPLE LIST

Date: May 23, 2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL Work Order Sample Summary

Lab Order: 13050170

Lab Sample ID Client Sample ID	Tag Number	Collection Date	Date Received
13050170-001A PA-276-01(0-6)-050113		5/1/2013 9:45:00 AM	5/3/2013
13050170-001B PA-276-01(0-6)-050113	Fine Grained	5/1/2013 9:45:00 AM	5/3/2013
13050170-002APA-276-01(0-6)-050113D		5/1/2013 9:50:00 AM	5/3/2013
13050170-002B PA-276-01(0-6)-050113D	Fine Grained	5/1/2013 9:50:00 AM	5/3/2013
13050170-003A PA-274-01(0-6)-050113		5/1/2013 11:20:00 AM	5/3/2013
13050170-003B PA-274-01(0-6)-050113	Fine Grained	5/1/2013 11:20:00 AM	5/3/2013
13050170-004A PA-274-02(0-6)-050113		5/1/2013 11:25:00 AM	5/3/2013
13050170-004B PA-274-02(0-6)-050113	Fine Grained	5/1/2013 11:25:00 AM	5/3/2013
13050170-005A PA-272-01(0-6)-050113		5/1/2013 12:20:00 PM	5/3/2013
13050170-005B PA-272-01(0-6)-050113	Fine Grained	5/1/2013 12:20:00 PM	5/3/2013
13050170-006APA-291-01(0-6)-050113		5/1/2013 2:40:00 PM	5/3/2013
13050170-006B PA-291-01(0-6)-050113	Fine Grained	5/1/2013 2:40:00 PM	5/3/2013
13050170-007A PA-291-03(0-6)-050113		5/1/2013 2:45:00 PM	5/3/2013
13050170-007B PA-291-03(0-6)-050113	Fine Grained	5/1/2013 2:45:00 PM	5/3/2013
13050170-008A PA-163-01(0-6)-050113		5/1/2013 4:00:00 PM	5/3/2013
13050170-008B PA-163-01(0-6)-050113	Fine Grained	5/1/2013 4:00:00 PM	5/3/2013
13050170-009A PA-163-02(0-6)-050113		5/1/2013 4:05:00 PM	5/3/2013
13050170-009B PA-163-02(0-6)-050113	Fine Grained	5/1/2013 4:05:00 PM	5/3/2013
13050170-010A PA-163-03(0-6)-050113		5/1/2013 4:10:00 PM	5/3/2013
13050170-010B PA-163-03(0-6)-050113	Fine Grained	5/1/2013 4:10:00 PM	5/3/2013
13050170-011APA-183-01(0-6)-050213		5/2/2013 9:15:00 AM	5/3/2013
13050170-011B PA-183-01(0-6)-050213	Fine Grained	5/2/2013 9:15:00 AM	5/3/2013
13050170-012A PA-180-01(0-6)-050213		5/2/2013 10:10:00 AM	5/3/2013
13050170-012B PA-180-01(0-6)-050213	Fine Grained	5/2/2013 10:10:00 AM	5/3/2013
13050170-013A PA-180-02(0-6)-050213		5/2/2013 10:15:00 AM	5/3/2013
13050170-013B PA-180-02(0-6)-050213	Fine Grained	5/2/2013 10:15:00 AM	5/3/2013
13050170-014A PA-105-01(0-6)-050213		5/2/2013 12:15:00 PM	5/3/2013
13050170-014B PA-105-01(0-6)-050213	Fine Grained	5/2/2013 12:15:00 PM	5/3/2013
13050170-015A PA-105-01(0-6)-050213		5/2/2013 12:20:00 PM	5/3/2013
13050170-015B PA-105-01(0-6)-050213	Fine Grained	5/2/2013 12:20:00 PM	5/3/2013
13050170-016A PA-105-03(0-6)-050213		5/2/2013 12:25:00 PM	5/3/2013
13050170-017A PA-105-04(0-6)-050213	Fine Grained	5/2/2013 12:30:00 PM	5/3/2013
13050170-018A PA-104-01(0-6)-050213		5/2/2013 2:20:00 PM	5/3/2013
13050170-018B PA-104-01(0-6)-050213	Fine Grained	5/2/2013 2:20:00 PM	5/3/2013
13050170-019A PA-104-02(0-6)-050213		5/2/2013 2:25:00 PM	5/3/2013
13050170-019B PA-104-02(0-6)-050213	Fine Grained	5/2/2013 2:25:00 PM	5/3/2013
13050170-020A PA-186-01(0-6)-050213		5/2/2013 3:50:00 PM	5/3/2013
13050170-020B PA-186-01(0-6)-050213	Fine Grained	5/2/2013 3:50:00 PM	5/3/2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL

Lab Order: 13050170

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13050170-021A	PA-186-02(0-6)-050213		5/2/2013 3:55:00 PM	5/3/2013
13050170-021B	PA-186-02(0-6)-050213	Fine Grained	5/2/2013 3:55:00 PM	5/3/2013
13050170-022A	PA-104-03(0-6)-050213		5/2/2013 4:00:00 PM	5/3/2013
13050170-023A	PA-104-04(0-6)-050213		5/2/2013 4:05:00 PM	5/3/2013
13050170-024A	PA-191-01(0-6)-050213		5/2/2013 4:35:00 PM	5/3/2013
13050170-024B	PA-191-01(0-6)-050213	Fine Grained	5/2/2013 4:35:00 PM	5/3/2013
13050170-025A	PA-191-01(0-6)-050213D		5/2/2013 4:40:00 PM	5/3/2013
13050170-025B	PA-191-01(0-6)-050213D	Fine Grained	5/2/2013 4:40:00 PM	5/3/2013
13050170-026A	PA-193-01(0-6)-050313		5/3/2013 9:30:00 AM	5/3/2013
13050170-026B	PA-193-01(0-6)-050313	Fine Grained	5/3/2013 9:30:00 AM	5/3/2013
13050170-027A	PA-125-01(0-6)-050313		5/3/2013 12:00:00 PM	5/3/2013
13050170-027B	PA-125-01(0-6)-050313	Fine Grained	5/3/2013 12:00:00 PM	5/3/2013
13050170-028A	PA-125-02(0-6)-050313		5/3/2013 12:05:00 PM	5/3/2013
13050170-028B	PA-125-02(0-6)-050313	Fine Grained	5/3/2013 12:05:00 PM	5/3/2013
13050170-029A	PA-125-03(0-6)-050313		5/3/2013 12:10:00 PM	5/3/2013
13050170-029B	PA-125-03(0-6)-050313	Fine Grained	5/3/2013 12:10:00 PM	5/3/2013
13050170-030A	PA-125-04(0-6)-050313		5/3/2013 12:15:00 PM	5/3/2013
13050170-031A	PA-125-05(0-6)-050313		5/3/2013 12:20:00 PM	5/3/2013
13050170-032A	PA-123-01(0-6)-050313		5/3/2013 12:50:00 PM	5/3/2013
13050170-032B	PA-123-01(0-6)-050313	Fine Grained	5/3/2013 12:50:00 PM	5/3/2013
13050170-033A	PA-127-01(0-6)-050313		5/3/2013 2:40:00 PM	5/3/2013
13050170-033B	PA-127-01(0-6)-050313	Fine Grained	5/3/2013 2:40:00 PM	5/3/2013
13050170-033C	PA-127-01(0-6)-050313	Course Grained	5/3/2013 2:40:00 PM	5/3/2013
13050170-034A	PA-122-01(0-6)-050313		5/3/2013 4:00:00 PM	5/3/2013
13050170-034B	PA-122-01(0-6)-050313	Fine Grained	5/3/2013 4:00:00 PM	5/3/2013
13050170-034C	PA-122-01(0-6)-050313	Course Grained	5/3/2013 4:00:00 PM	5/3/2013
13050170-035A	PA-122-02(0-6)-050313		5/3/2013 4:05:00 PM	5/3/2013
13050170-035B	PA-122-02(0-6)-050313	Fine Grained	5/3/2013 4:05:00 PM	5/3/2013

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050170

ATTACHMENT B

STAT ANALYSIS CORPORATION RESULTS SUMMARY WITH QUALIFIERS

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-276-01(0-6)-050113

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 9:45:00 AM

Lab ID:

13050170-001A

Matrix: Soil

													
Analyses	Result	RL	Qualifi	er Units	DF	Date Analyzed							
Mercury	SW74	71A		Prep	Date: 5/9/2013	Analyst: LB							
Mercury	1.2	0.11		mg/Kg-dry	5	5/9/2013							
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 5/9/2013	Analyst: JG							
Antimony	13 🔰	2.5		mg/Kg-dry	10	5/9/2013							
Cadmium	17	0.64		mg/Kg-dry	10	5/9/2013							
Chromium	49	1.3		mg/Kg-dry	10	5/9/2013							
Copper	1600	32		mg/Kg-dry	100	5/9/2013							
Lead	2400	0.64		mg/Kg-dry	10	5/9/2013							
Tin	200	6.4		mg/Kg-dry	10	5/9/2013							
Zinc	6300	64		mg/Kg-dry	100	5/9/2013							
CLP Metals by ICP/MS	SW13	11/6020 (SW3005A) Prep	Date: 5/7/2013	Analyst: JG							
Lead	0.48	0.005		mg/L	5	5/7/2013							
oH (25 °C)	SW90-	45C		Prep	Date: 5/10/2013	Analyst: RW							
рН	7.4			pH Units	1	5/10/2013							
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW							
Percent Moisture	21.8	0.2		wt%	1	5/10/2013							

29/13/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-276-01(0-6)-050113

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 9:45:00 AM

Lah ID:

13050170-001B

Matrix: Soil

Lab ID:	13050170-001B	Matta, 501							
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed		
In Vitro Extra	actable Metals by ICP/MS	EPA 9 21	200/6020 0.1	(SW3005A)	Prep mg/L	Date: 5/19/201 3 20	3 Analyst: JG 5/22/2013		
In Vitro Bioa Lead	ccessibility	EPA 9 95.6	200/6020 0.01	ŵ	Prep %	Date: 5/22/2013 1	3 Analyst: JG 5/22/2013		
Metals by IC	P/MS	SW60 2200	20 (SW 3		Prep ng/Kg-dry	Date: 5/18/201 3	3 Analyst: BJA 5/18/2013		

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, 1L 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-276-01(0-6)-050113D

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 9:50:00 AM

Lab ID:

13050170-002A

Matrix: Soil

Analyses	Result	RL	Qualifie	er Units	DF	Date Analyzed
Mercury	SW7471	IA .		Prep	Date: 5/9/2013	Analyst: LB
Mercury	1.4	0.12		mg/Kg-dry	5	5/9/2013
Metals by ICP/MS	SW6026) (SW3()50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	7.7 🕇	2.7	-	mg/Kg-dry	10	5/9/2013
Cadmium	16	0.67		mg/Kg-dry	10	5/9/2013
Chromium	62	1.3		mg/Kg-dry	10	5/9/2013
Copper	1700	34		mg/Kg-dry	100	5/9/2013
Lead	3600	0.67		mg/Kg-dry	10	5/9/2013
Tin	180	6.7	*	mg/Kg-dry	10	5/9/2013
Zinc	6400	67		mg/Kg-dry	100	5/9/2013
CLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	0.5	0.005		mg/L	5	5/7/2013
oH (25 °C)	SW9045	C		Prep	Date: 5/10/2013	Analyst: RW
PΗ	7.5			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Molsture	25.9	0.2		wt%	1	5/10/2013



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-276-01(0-6)-050113D

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 9:50:00 AM

Lah ID:

13050170-002B

Matrix: Soil

Lab ID: 130301/0-002B				Mati	A. 5011	
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
In Vitro Extractable Metals by ICP/MS Lead	EPA 9 19	200/6020 0.1	(SW3005A)	Prep mg/L	Date: 5/19/201	3 Analyst: JG 5/22/2013
In Vitro Bioaccessibility Lead	EPA 9 92.6	200/6020 0.01	*	Prep %	Date: 5/22/201	3 Analyst: JG 5/22/2013
Metals by ICP/MS Lead	SW60 2100	20 (SW3 6	•	Prep ng/Kg-dry	Date: 5/18/201	3 Analyst: BJA 5/18/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050170-003A

Client Sample ID: PA-274-01(0-6)-050113

13050170

Tag Number:

Lab Order: Project: Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 11:20:00 AM

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	IA		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.72	0.024		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW6020	(SW30)50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony -	3.6 ✓	2.5		mg/Kg-dry	10	5/9/2013
Cadmium	12	0.61		mg/Kg-dry	10	5/9/2013
Chromium	55	1.2		mg/Kg-dry	10	5/9/2013
Copper	1100	3.1		mg/Kg-dry	10	5/9/2013
Lead	1900	0.61		mg/Kg-dry	10	5/9/2013
Tin	110	6.1	*	mg/Kg-dry	10	5/9/2013
Zinc	4900	61		mg/Kg-dry	100	5/9/2013
TCLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	0.12	0.005	•	mg/L	5	5/7/2013
pH (25 °C)	SW9045	C		Prep	Date: 5/10/2013	Analyst: RW
pН	6.6			pH Units	1	5/10/2013
Percent Molsture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	23.4	0.2	*	wt%	1	5/10/2013



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-274-01(0-6)-050113

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 11:20:00 AM

DF

Lab ID:

13050170-003B

Matrix: Soil

Analyses

Result

Qualifier Units RL

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 0.93 1500

Prep Date: 5/18/2013 mg/Kg-dry 10

Analyst: BJA

5/18/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050170-004A

Client Sample ID: PA-274-02(0-6)-050113

Lab Order:

13050170

Tag Number:

Project: Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 11:25:00 AM

Matrix: Soil

Analyses		Result	RL	Qualific	er Units	DF	Date Analyzed
Mercury		SW7471	IA		Prep	Date: 5/9/2013	Analyst: LB
Mercury		0.65	0.025		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS		SW6020) (SW30	50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony		3.5 ブ	2.6	•	mg/Kg-dry	10	5/9/2013
Cadmium	63	11	0.64		mg/Kg-dry	10	5/9/2013
Chromium		41	1.3		mg/Kg-dry	10	5/9/2013
Copper		960	3.2		mg/Kg-dry	10	5/9/2013
Lead		2000	0.64		mg/Kg-dry	10	5/9/2013
Tin		93	6.4	*	mg/Kg-dry	10	5/9/2013
Zinc	,	4800	64		mg/Kg-dry	100	5/9/2013
TCLP Metals by ICP/MS		SW1311	/6020 (5	SW3005A)	Pren	Date: 5/7/2013	Analyst: JG
Lead		0.11	0.005	,	mg/L	5	5/7/2013
pH (25 °C)		SW9045	iC		Prep	Date: 5/10/2013	3 Analyst: RW
рH		6.6			pH Units	1	5/10/2013
Percent Moisture		D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture		27.4	0.2		wt%	1	5/10/2013



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

4 - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-274-02(0-6)-050113

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 11:25:00 AM

Lab ID:

13050170-004B

Matrix: Soil

Analyses

SW6020 (SW3050B)

Prep Date: 5/18/2013

DF

Analyst: BJA

Metals by ICP/MS Lead

1700

Result

0.99

RL

mg/Kg-dry

Qualifier Units

5/18/2013

Date Analyzed

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-272-01(0-6)-050113

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 12:20:00 PM

Lab ID:

13050170-005A

Matrix: Soil

Analyses	Result	RL (Qualifier Unit	ts DF	Date Analyzed
Mercury	SW74	SW7471A		rep Date: 5/9/201	3 Analyst: LB
Mercury	0.75	0.023	mg/Kg-d	dry 1	5/9/2013
Metals by ICP/MS	SW60	20 (SW3050	0B) P	rep Date: 5/9/201 :	3 Analyst: JG
Antimony	33 J	2.3	mg/Kg-c	lry 10	5/9/2013
Cadmium	6.7	0.58	mg/Kg-c	iry 10	5/9/2013
Chromium	N ₁ 21	1.2	mg/Kg-c	lry 10	5/9/2013
Copper	520	2.9	mg/Kg-c	lry 10	5/9/2013
Lead	2000	0.58	mg/Kg-c	iry 10	5/9/2013
Tin	190	5.8	* mg/Kg-c	lry 10	5/9/2013
Zinc	2500	58	mg/Kg-c	lry 100	5/9/2013
CLP Metals by ICP/MS	sw13	11/6020 (SW	V3005A) P	rep Date: 5/7/201:	3 Analyst: JG
Lead	0.43	0.005	mg/L	-	5/7/2013
oH (25 °C)	SW90	SW9045C		rep Date: 5/10/20 1	13 Analyst: RW
pН	7.9		pH Unit	ts 1	5/10/2013
ercent Moisture	D2974	ļ	Р	rep Date: 5/9/201 3	3 Analyst: RW
Percent Moisture	17.7	0.2	* wt%	1	5/10/2013



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-272-01(0-6)-050113

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 12:20:00 PM

Lab ID:

13050170-005B

Matrix: Soil

Analyses

SW6020 (SW3050B)

Prep Date: 5/18/2013

DF

Analyst: BJA

Metals by ICP/MS Lead

1700

Result

0.97

mg/Kg-dry 19

Qualifier Units

5/19/2013

Date Analyzed

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Lab Order:

13050170

Client Sample ID: PA-291-01(0-6)-050113 Tag Number:

Project:

Collection Date 5/1/2013 2:40:00 PM

Lab ID:

13050170-006A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471A		Prep Date: 5/9/2013		Analyst: LB	
Mercury	0.39	0.021		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW6020 (SW3050B)			Prep	Analyst: JG	
Antimony	ND	2.4		mg/Kg-dry	10	5/9/2013
Cadmium	3.1	0.6		mg/Kg-dry	10	5/9/2013
Chromium	24	1.2		mg/Kg-dry	10	5/9/2013
Copper	100	3		mg/Kg-dry	10	5/9/2013
Lead	500	0.6		mg/Kg-dry	10	5/9/2013
Tin	39	6	•	mg/Kg-dry	10	5/9/2013
Zinc	620	6		mg/Kg-dry	10	5/9/2013
CLP Metals by ICP/MS	SW1311/6020 (SW3005A) Prep Date: 5/7/2013		Analyst: JG	
Lead	0.03	0.005		mg/L	5	5/7/2013
oH (25 °C)	SW9045C			Prep Date: 5/10/2013		Analyst: RW
PΗ	7.7			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Molsture	17.4	0.2	*	wt%	1	5/10/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-291-01(0-6)-050113

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 2:40:00 PM

Lab ID:

13050170-006B

Matrix: Soil

Analyses

RL Qualifier Units

Prep Date: 5/18/2013

DF

Analyst: BJA

Metals by ICP/MS Lead

SW6020 (SW3050B) 780

Result

0.99

mg/Kg-dry

5/19/2013

Date Analyzed

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-291-03(0-6)-050113

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 2:45:00 PM

Lab ID:

13050170-007A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.028	0.022		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW602	0 (SW30)50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	ND	2.3		mg/Kg-dry	10	5/9/2013
Cadmium	0.61	0.57		mg/Kg-dry	10	5/9/2013
Chromium	19	1.1		mg/Kg-dry	10	5/9/2013
Copper	26	2.9		mg/Kg-dry	10	5/9/2013
Lead	34	0.57		mg/Kg-dry	10	5/9/2013
Tln	ND	5.7		mg/Kg-dry	10	5/9/2013
Zinc	100	57		mg/Kg-dry	100	5/9/2013
CLP Metals by ICP/MS	SW131	1/6020 (SW3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	ND	0.005		mg/L	5	5/7/2013
эН (25 °C)	SW904	5C		Prep	Date: 5/10/2013	Analyst: RW
pΗ	7.5			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	15.4	0.2	4	wt%	1	5/10/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-291-03(0-6)-050113

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 2:45:00 PM

Lab ID:

13050170-007B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

Prep Date: 5/18/2013

mg/Kg-dry

Analyst: JG

5/19/2013 20

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-163-01(0-6)-050113

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 4:00:00 PM

Lab ID:

13050170-008A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	ND	0.022		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW602	D (SW30)50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	ND	2.4		mg/Kg-dry	10	5/9/2013
Cadmium	ND	0.6		mg/Kg-dry	10	5/9/2013
Chromium	11	1.2		mg/Kg-dry	10	5/9/2013
Copper	23	3		mg/Kg-dry	10	5/9/2013
Lead	19	0.6		mg/Kg-dry	10	5/9/2013
Tin	ND	6	*	mg/Kg-dry	10	5/9/2013
Zinc	76	6		mg/Kg-dry	10	5/9/2013
TCLP Metals by ICP/MS	SW131	1/6020 (SW3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	ND	0.005	•	mg/L	5	5/7/2013
pH (25 °C)	SW904	5C		Prep	Date: 5/10/2013	Analyst: RW
рН	7.9			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	18.0	0.2	*	wt%	1	5/10/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-163-01(0-6)-050113

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 4:00:00 PM

Lab ID:

13050170-008B

Matrix: Soil

Analyses

Result

L Qualifier Units

Prep Date: 5/18/2013

DF

Date Analyzed

Analyst: JG

Metals by ICP/MS Lead SW6020 (SW3050B)

2

mg/Kg-dry

/ **_**_

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 4:05:00 PM

Client Sample ID: PA-163-02(0-6)-050113

Lab ID:

13050170-009A

Matrix: Soil

Analyses	Result	RL Q	ualifier Units	DF	Date Analyzed
Mercury	SW74	71A	Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.094	0.024	mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW60	20 (SW3050)	B) Prep	Date: 5/9/2013	Analyst: JG
Antimony	ND	2.4	mg/Kg-dry	10	5/9/2013
Cadmium	0.89	0.6	mg/Kg-dry	10	5/9/2013
Chromium	19	1.2	mg/Kg-dry	10	5/9/2013
Copper	32	3	mg/Kg-dry	10	5/9/2013
Lead	130	0.6	mg/Kg-dry	10	5/9/2013
Tin	13	6	* mg/Kg-dry	10	5/9/2013
Zinc	130	6	mg/Kg-dry	10	5/9/2013
CLP Metals by ICP/MS	SW13 ⁻	11/6020 (SW:	3005A) Prep	Date: 5/7/2013	Analyst: JG
Lead	0.014	0.005	mg/L	5	5/8/2013
oH (25 °C)	SW904	45C	Prep	Date: 5/10/2013	Analyst: RW
Hq	8.1		pH Units	1	5/10/2013
Percent Moisture	D2974		Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	21.6	0.2	* wt%	1	5/10/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-163-02(0-6)-050113

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 4:05:00 PM

DF

Lab ID:

Analyses

13050170-009B

Matrix: Soil

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

0.97

Result

160

Prep Date: 5/18/2013 mg/Kg-dry

RL Qualifier Units

Analyst: BJA

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-163-03(0-6)-050113

Lab Order:

13050170

Tag Number:

Project:

Collection Date 5/1/2013 4:10:00 PM

Lab ID:

13050170-010A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualific	r Units	DF	Date Analyzed
Mercury	SW7471	A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.058	0.023		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW602) (SW3()50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	ND	2.4	•	mg/Kg-dry	10	5/9/2013
Cadmium	0.82	0.59		mg/Kg-dry	10	5/9/2013
Chromium	16	1.2		mg/Kg-dry	10	5/9/2013
Copper	29	3		mg/Kg-dry	10	5/9/2013
Lead	130	0.59		mg/Kg-dry	10	5/9/2013
Tin	6.3	5.9	*	mg/Kg-dry	10	5/9/2013
Zinc	140	5.9		mg/Kg-dry	10	5/9/2013
TCLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	ND	0.005		mg/L	5	5/8/2013
pH (25 °C)	SW9045	C		Prep	Date: 5/10/2013	Analyst: RW
pH	8.0			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	18.1	0.2	*	wt%	1	5/10/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-163-03(0-6)-050113

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/1/2013 4:10:00 PM

Lab ID:

13050170-010B

Matrix: Soil

Date Analyzed RL Qualifier Units Result **Analyses**

Metals by ICP/MS

Lead

SW6020 (SW3050B) 220

0.97

mg/Kg-dry

Prep Date: 5/18/2013 10

Analyst: BJA 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-183-01(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 9:15:00 AM

Lab ID:

13050170-011A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	'1A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.63	0.024		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW602	0 (SW305	50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	5.3 J	2.5		mg/Kg-dry	10	5/10/2013
Cadmium	8.5	0.64		mg/Kg-dry	10	5/10/2013
Chromium	32	1.3		mg/Kg-dry	10	5/10/2013
Copper	800	3.2		mg/Kg-dry	10	5/10/2013
Lead	1300	0.64		mg/Kg-dry	10	5/10/2013
Tin	82	6.4		mg/Kg-dry	10	5/10/2013
Zinc	3600	64		mg/Kg-dry	100	5/9/2013
CLP Metals by ICP/MS	SW131	1/6020 (S	W3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	0.2	0.005		mg/L	5	5/8/2013
oH (25 °C)	SW904	5C		Prep	Date: 5/10/2013	Analyst: RW
Hq	7.2			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	24.4	0.2		wt%	1	5/10/2013



ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-183-01(0-6)-050213

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 9:15:00 AM

Lab ID:

13050170-011B

Matrix: Soil

Analyses

Result

RL Qualifier Units

DF

Date Analyzed

Metals by ICP/MS

SW6020 (SW3050B)

mg/Kg-dry

Prep Date: 5/18/2013

Analyst: BJA

Lead

1200

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

13050170-012A

Client Sample ID: PA-180-01(0-6)-050213

Lab Order:

13050170

Tag Number:

Project: Lab ID: Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 10:10:00 AM

Matrix: Soil

	1/2001 114- 1151							
Analyses	Result	RL	Qualifie	Units	DF	Date Analyzed		
Mercury	SW747	1A		Prep	Date: 5/9/2013	Analyst: LB		
Mercury	0.36	0.02		mg/Kg-dry	1	5/9/2013		
Metals by ICP/MS	SW602	0 (SW30	50B)	Prep	Date: 5/9/2013	Analyst: JG		
Antimony	42 J	2.3		mg/Kg-dry	10	5/10/2013		
Cadmium	6	0.58		mg/Kg-dry	10	5/10/2013		
Chromium	28	1.2		mg/Kg-dry	10	5/10/2013		
Copper	300	2.9		mg/Kg-dry	10	5/10/2013		
Lead	810	0.58		mg/Kg-dry	10	5/10/2013		
Tin	36	5.8	*	mg/Kg-dry	10	5/10/2013		
Zinc	2300	58		mg/Kg-dry	100	5/9/2013		
TCLP Metals by ICP/MS	SW131	1/6020 (9	SW3005A)	Prep	Date: 5/7/2013	Analyst: JG		
Lead	0.16	0.005		mg/L	5	5/7/2013		
pH (25 °C)	SW904	5C		Prep	Date: 5/10/2013	Analyst: RW		
pH	7.1			pH Units	1	5/10/2013		
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW		
Percent Moisture	15.2	0.2	*	wt%	1	5/10/2013		



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-180-01(0-6)-050213

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Tag Number: The Granied

Lab ID:

riisen son site, riisen, Cincago, n

Collection Date 5/2/2013 10:10:00 AM

Matrix: Soil

Analyses

13050170-012B

Matrix. St

Qualifier Units

Date Analyzed

Metals by ICP/MS

Result

SW6020 (SW3050B)

Prep Date: 5/18/2013

Analyst: BJA

Lead

970

1

RL

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

4 - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-180-02(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 10:15:00 AM

Lab ID:

13050170-013A

Matrix: Soil

Analyses	Result	RL	Qualific	er Units	DF	Date Analyzed
Mercury	SW747	IA		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.35	0.021		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW602	(SW30	50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	ND	2.2	·	mg/Kg-dry	10	5/10/2013
Cadmium	6.5	0.55		mg/Kg-dry	10	5/10/2013
Chromium	18	1.1		mg/Kg-dry	10	5/10/2013
Copper	330	2.7		mg/Kg-dry	10	5/10/2013
Lead	3000	0.55		mg/Kg-dry	10	5/10/2013
Tin	140	5.5	•	mg/Kg-dry	10	5/10/2013
Zinc	2800	55		mg/Kg-dry	100	5/9/2013
CLP Metals by ICP/MS	SW1311	/6020 (9	SW3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	0.66	0.005	-	mg/L	5	5/7/2013
oH (25 °C)	SW9045	C		Prep	Date: 5/10/2013	Analyst: RW
Ηq	8.0			pH Units	1	5/10/2013
Percent Molsture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	12.5	0.2	1.7	wt%	1	5/10/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

3 - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-180-02(0-6)-050213

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 10:15:00 AM

Lab ID:

13050170-013B

Matrix: Soil

Date Analyzed DF Qualifier Units Result **Analyses**

Metals by ICP/MS

Lead

SW6020 (SW3050B) 1500

mg/Kg-dry

Prep Date: 5/18/2013

Analyst: BJA

5/19/2013

Qualifiers:

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J - Analyte detected below quantitation limits

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HT - Sample received past holding time

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RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-105-01(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 12:15:00 PM

Lab ID:

13050170-014A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471	A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.45	0.042		mg/Kg-dry	2	5/9/2013
Metals by ICP/MS	> SW6020	(SW30	50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	ND ジブ	2.2	·	mg/Kg-dry	10	5/10/2013
Cadmium	2.1	0.56		mg/Kg-dry	10	5/10/2013
Chromium	23	1.1		mg/Kg-dry	10	5/10/2013
Copper	99	2.8		mg/Kg-dry	10	5/10/2013
Lead	640	0.56		mg/Kg-dry	10	5/10/2013
Tin	30 🕽	5.6	*	mg/Kg-dry	10	5/10/2013
Zinc	930	56		mg/Kg-dry	100	5/9/2013
TCLP Metals by ICP/MS	SW1311/	/6020 (S	W3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	0.23	0.005	•	mg/L	5	5/7/2013
pH (25 °C)	SW9045	С		Prep	Date: 5/10/2013	Analyst: RW
рН	7.7			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	18.6	0.2	*	wt%	1	5/10/2013



ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

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HT - Sample received past holding time

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RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-105-01(0-6)-050213

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 12:15:00 PM

DF

Lab ID:

13050170-014B

Matrix: Soil

Analyses Metals by ICP/MS Result

 \mathbf{RL} Qualifier Units

Prep Date: 5/18/2013

3.2

Analyst: JG

Date Analyzed

Lead

SW6020 (SW3050B)

mg/Kg

5/21/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

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R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-105-01(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 12:20:00 PM

Lab ID:

13050170-015A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.48	0.019		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	ND	2.3		mg/Kg-dry	10	5/10/2013
Cadmium	2.6	0.57		mg/Kg-dry	10	5/10/2013
Chromium	28	11		mg/Kg-dry	100	5/9/2013
Copper	240	28		mg/Kg-dry	100	5/9/2013
Lead	990	0.57		mg/Kg-dry	10	5/10/2013
Tin	21	5.7	*	mg/Kg-dry	10	5/10/2013
Zinc	1100	57		mg/Kg-dry	100	5/9/2013
CLP Metals by ICP/MS	SW13	11/6020 (S	W3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	0.25	0.005		mg/L	5	5/7/2013
оН (25 °C)	SW90-	45C		Prep	Date: 5/10/2013	Analyst: RW
pΗ	7.5			pH Units	1	5/10/2013
Percent Moisture	D2974	ı		Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	17.2	0.2		wt%	1	5/10/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-105-01(0-6)-050213

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 12:20:00 PM

DF

Lab ID:

13050170-015B

Matrix: Soil

Analyses

Result

Qualifier Units \mathbf{RL}

Prep Date: 5/18/2013

Metals by ICP/MS

Lead

SW6020 (SW3050B) 0.98 2100

mg/Kg-dry

Analyst: BJA

Date Analyzed

5/19/2013

Oualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-105-03(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

13030170

Collection Date 5/2/2013 12:25:00 PM

Lab ID:

13050170-016A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

				17200022	A. DOII	
Analyses	Result	RL (Qualifie	r Units	DF	Date Analyzed
Metals by ICP/MS Lead	SW6020 810	(SW305 0	0B)	Prep mg/Kg-dry	Date: 5/9/2013 10	Analyst: JG 5/10/2013
Percent Moisture Percent Moisture	D2974 17.9	0.2	8.0	Prep wt%	Date: 5/9/2013	Analyst: RW 5/10/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-105-04(0-6)-050213

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 12:30:00 PM

Lah ID:

13050170-017A

Matrix: Soil

Lau ID. 13030170-01771						
Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Metals by ICP/MS Lead	SW6020 1500	(SW30 ! 0.61		Prep mg/Kg-dry	Date: 5/9/2013 10	Analyst: JG 5/10/2013
Percent Moisture Percent Moisture	D2974 20.4	0.2	*	Prep wt%	Date: 5/9/2013	Analyst: RW 5/10/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-104-01(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 2:20:00 PM

Lab ID:

13050170-018A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1 A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.55	0.022		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW602	0 (SW30	50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	2.3 丁	2.3		mg/Kg-dry	10	5/10/2013
Cadmium	6	0.57		mg/Kg-dry	10	5/10/2013
Chromium	24	1.1		mg/Kg-dry	10	5/10/2013
Copper	190	2.8		mg/Kg-dry	10	5/10/2013
Lead	930	0.57		mg/Kg-dry	10	5/10/2013
Tin	34	5.7	*	mg/Kg-dry	10	5/10/2013
Zinc	1500	57		mg/Kg-dry	100	5/9/2013
CLP Metals by ICP/MS	SW131	1/6020 (9	SW3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	0.42	0.005		mg/L	5	5/7/2013
H (25 °C)	SW904	5C		Prep	Date: 5/10/2013	Analyst: RW
pH	7.9			pH Units	1	5/10/2013
ercent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	17.2	0.2	*	wt%	1	5/10/2013

29/13/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-104-01(0-6)-050213

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 2:20:00 PM

DF

Lab ID:

13050170-018B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 1100 0.96 Prep Date: 5/18/2013

mg/Kg-dry 10

Analyst: BJA

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-104-02(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 2:25:00 PM

13050170-019A Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471	A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.57	0.024		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW6020	(SW30	50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	2.8 ブ	2.3	•	mg/Kg-dry	10	5/10/2013
Cadmium	7.6	0.58		mg/Kg-dry	10	5/10/2013
Chromium	33	1.2		mg/Kg-dry	10	5/10/2013
Copper	340	2.9		mg/Kg-dry	10	5/10/2013
Lead	1400	0.58		mg/Kg-dry	10	5/10/2013
Tin	53	5.8	*	mg/Kg-dry	10	5/10/2013
Zinc	2400	58		mg/Kg-dry	100	5/9/2013
CLP Metals by ICP/MS	SW1311	/6020 (\$	SW3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	0.36	0.005	-	mg/L	5	5/7/2013
oH (25 °C)	SW9045	С		Prep	Date: 5/10/2013	Analyst: RW
PΗ	6.2			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	22.4	0.2	*	wt%	1	5/10/2013



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-104-02(0-6)-050213

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 2:25:00 PM

Lab ID:

13050170-019B

Matrix: Soil

Analyses Result RL Qualifier Units DF Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

Prep Date: mg/Kg-dry 10

Prep Date: 5/18/2013

Analyst: BJA

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050170-020A

Client Sample ID: PA-186-01(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 3:50:00 PM Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	IA		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.21	0.022		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW602) (SW3)	050B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	ND	2.2	•	mg/Kg-dry	10	5/10/2013
Cadmium	1.9	0.55		mg/Kg-dry	10	5/10/2013
Chromium	23	1.1		mg/Kg-dry	10	5/10/2013
Copper	180	2.7		mg/Kg-dry	10	5/10/2013
Lead	360	0.55		mg/Kg-dry	10	5/10/2013
Tin	19	5.5	*	mg/Kg-dry	10	5/10/2013
Zinc	970	55		mg/Kg-dry	100	5/9/2013
TCLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	0.2	0.005	•	mg/L	5	5/7/2013
pH (25 °C)	SW9045	iC		Prep	Date: 5/10/2013	Analyst: RW
pН	8.0			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	15.1	0.2	(35)	wt%	31	5/10/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-186-01(0-6)-050213

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 3:50:00 PM

Lab ID:

13050170-020B

Matrix: Soil

Date Analyzed DF Qualifier Units \mathbf{RL} Result Analyses Analyst: BJA Prep Date: 5/18/2013

Metals by ICP/MS Lead

SW6020 (SW3050B) 600 0.99

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-186-02(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 3:55:00 PM

Lab ID: 13050170-021A

Matrix: Soil

Analyses	Result	RL	Qualifie	er Units	DF	Date Analyzed
Mercury	SW747	71A		Prep	Date: 5/9/2013	Analyşt: LB
Mercury	0.3	0.018		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW602	20 (SW30)50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	ND	2.3	•	mg/Kg-dry	10	5/10/2013
Cadmium	2	0.57		mg/Kg-dry	10	5/10/2013
Chromium	19	1.1		mg/Kg-dry	10	5/10/2013
Copper	160	2.9		mg/Kg-dry	10	5/10/2013
Lead	320	0.57		mg/Kg-dry	10	5/10/2013
Tin	20	5.7	*	mg/Kg-dry	10	5/10/2013
Zinc	900	57		mg/Kg-dry	100	5/9/2013
TCLP Metals by ICP/MS	SW131	1/6020 (SW3005A)	Prep	Date: 5/7/2013	Analyst: JG
Lead	0.056	0.005	•	mg/L	5	5/7/2013
pH (25 °C)	SW904	15C		Prep	Date: 5/10/2013	Analyst: RW
РН	7.8			pH Units	1	5/10/2013
Percent Molsture	D2974	111		Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	16.8	0.2	*	wt%	1	5/10/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits
E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-186-02(0-6)-050213

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 3:55:00 PM

Lab ID:

13050170-021B

Matrix: Soil

Analyses

SW6020 (SW3050B)

Prep Date: 5/19/2013

Date Analyzed

Analyst: JG

Metals by ICP/MS
Lead

760 10

Result

mg/Kg-dry

RL Qualifier Units

100

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-104-03(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 4:00:00 PM

Lab ID: 13050170-022A

Matrix: Soil

Analyses	Result RL	Qualifi	er Units D	F	Date Analyzed
Metals by ICP/MS Lead	SW6020 (SW3 730 0.61	,	•	e: 5/9/2013 0	Analyst: JG 5/10/2013
Percent Moisture Percent Moisture	D2974 19.4 0.2	*	Prep Dat wt%	e: 5/9/2013	Analyst: RW 5/10/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-104-04(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 4:05:00 PM

Lab ID:

13050170-023A

Matrix: Soil

Lab ID:	13030170-02311						
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/M	s	SW6020 500	(SW305 0.53		Prep mg/Kg-dry	Date: 5/9/2013 10	Analyst: JG 5/10/2013
Percent Moisture	e	D2974 18.6	0.2	13	Prep wt%	Date: 5/9/2013 1	Analyst: RW 5/10/2013

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

⁻ Non-accredited parameter

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-191-01(0-6)-050213

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 4:35:00 PM

Lab ID:

13050170-024A

Matrix: Soil

Result	RL	Qualifie	r Units	DF	Date Analyzed			
SW747	1A		Prep	Date: 5/9/2013	Analyst: LB			
1	0.18		mg/Kg-dry	10	5/9/2013			
SW602	0 (SW30)50B)	Prep	Date: 5/9/2013	Analyst: JG			
39 J	2.4		mg/Kg-dry	10	5/10/2013			
14	0.61		mg/Kg-dry	10	5/10/2013			
28	1.2		mg/Kg-dry	10	5/10/2013			
1100	3		mg/Kg-dry	10	5/10/2013			
2000	0.61		mg/Kg-dry	10	5/10/2013			
120	6.1		mg/Kg-dry	10	5/10/2013			
7200	61		mg/Kg-dry	100	5/9/2013			
SW131	1/6020 (SW3005A)	Prep	Date: 5/9/2013	Analyst: JG			
1.1	0.005		mg/L	5	5/9/2013			
SW904	5C		Prep	Date: 5/10/2013	Analyst: RW			
7.7			pH Units	1	5/10/2013			
D2974			Prep	Date: 5/9/2013	Analyst: RW			
18.6	0.2	•	wt%	1	5/10/2013			
	SW747 1 SW602 39 J 14 28 1100 2000 120 7200 SW131 1.1 SW904 7.7 D2974	SW7471A 1 0.18 SW6020 (SW30 39 J 2.4 14 0.61 28 1.2 1100 3 2000 0.61 120 6.1 7200 61 SW1311/6020 (SM30) SW9045C 7.7 D2974	SW7471A 1 0.18 SW6020 (SW3050B) 39 J 2.4 14 0.61 28 1.2 1100 3 2000 0.61 120 6.1 7200 61 SW1311/6020 (SW3005A) 1.1 0.005 SW9045C 7.7 D2974	SW7471A Prep mg/Kg-dry SW6020 (SW3050B) Prep mg/Kg-dry 39 J 2.4 mg/Kg-dry 14 0.61 mg/Kg-dry 12 mg/Kg-dry 28 1.2 mg/Kg-dry 1100 3 mg/Kg-dry 2000 0.61 mg/Kg-dry 120 6.1 mg/Kg-dry 7200 61 mg/Kg-dry 7200 61 mg/Kg-dry SW1311/6020 (SW3005A) Prep mg/L SW9045C Prep pH Units D2974 Prep	SW7471A Prep Date: 5/9/2013 1 0.18 mg/Kg-dry 10 SW6020 (SW3050B) Prep Date: 5/9/2013 39 J 2.4 mg/Kg-dry 10 14 0.61 mg/Kg-dry 10 28 1.2 mg/Kg-dry 10 1100 3 mg/Kg-dry 10 2000 0.61 mg/Kg-dry 10 120 6.1 mg/Kg-dry 10 7200 61 mg/Kg-dry 100 SW1311/6020 (SW3005A) Prep Date: 5/9/2013 1.1 0.005 Prep Date: 5/10/2013 7.7 PH Units 1 Prep Date: 5/9/2013 Prep Date: 5/9/2013			



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-191-01(0-6)-050213

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 4:35:00 PM

Lab ID:

13050170-024B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

Lieh Do

Prep Date: 5/18/2013

DF

Analyst: BJA

d

1900

0.96

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-191-01(0-6)-050213D

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/2/2013 4:40:00 PM

Lab ID:

13050170-025A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471	Α .		Prep	Date: 5/9/2013	Analyst: LB
Mercury	1	0.046		mg/Kg-dry	2	5/9/2013
Metals by ICP/MS	SW6020	(SW30)50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	4.4 J	2.5		mg/Kg-dry	10	5/10/2013
Cadmium	16	0.63		mg/Kg-dry	10	5/10/2013
Chromium	37	1.3		mg/Kg-dry	10	5/10/2013
Copper	1400	31		mg/Kg-dry	100	5/9/2013
Lead	2400	0.63		mg/Kg-dry	10	5/10/2013
Tin	160	6.3	*	mg/Kg-dry	10	5/10/2013
Zinc	6800	63		mg/Kg-dry	100	5/9/2013
TCLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Date: 5/9/2013	Analyst: JG
Lead	1	0.005		mg/L	5	5/9/2013
pH (25 °C)	SW9045	iC		Prep	Date: 5/10/2013	Analyst: RW
рН	7.6			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	20.8	0.2	*	wt%	1	5/10/2013

2M 1/3/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050170-025B

Client Sample ID: PA-191-01(0-6)-050213D

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Lab ID:

Collection Date 5/2/2013 4:40:00 PM

Matrix: Soil

Analyses

Result

Qualifier Units

Date Analyzed

Metals by ICP/MS Lead

2000

SW6020 (SW3050B) 9.8

RL

Prep Date: 5/19/2013

Analyst: JG

mg/Kg-dry 100 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-193-01(0-6)-050313

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 9:30:00 AM

Lab ID:

13050170-026A

Matrix: Soil

Analyses	_	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury		SW747	'1A		Prep	Date: 5/9/2013	Analyst: LB
Mercury		0.092	0.02		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS		SW602	0 (SW30)50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony		ND	2.3		mg/Kg-dry	10	5/10/2013
Cadmium		2.3	0.58		mg/Kg-dry	10	5/10/2013
Chromium		30	1.2		mg/Kg-dry	10	5/10/2013
Copper		210	2.9		mg/Kg-dry	10	5/10/2013
Lead		580	0.58		mg/Kg-dry	10	5/10/2013
Tin		19	5.8	*	mg/Kg-dry	10	5/10/2013
Zinc		1000	58		mg/Kg-dry	100	5/9/2013
CLP Metals by ICP/MS		SW131	1/6020 (5	SW3005A)	Prep	Date: 5/9/2013	Analyst: JG
Lead		0.019	0.005		mg/L	5	5/9/2013
oH (25 °C)		SW904	5C		Prep	Date: 5/10/2013	Analyst: RW
pH		7.4			pH Units	1	5/10/2013
Percent Moisture		D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture		20.2	0.2	*	wt%	1	5/10/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-193-01(0-6)-050313

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 9:30:00 AM

100

Lab ID:

13050170-026B

Matrix: Soil

Analyses

Result

Prep Date: 5/19/2013 SW6020 (SW3050B)

RL Qualifier Units

Date Analyzed

Metals by ICP/MS Lead

840

9.7

mg/Kg-dry

Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

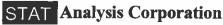
6 - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-125-01(0-6)-050313

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 12:00:00 PM

Lab ID:

13050170-027A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471	A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	1.1	0.11		mg/Kg-dry	5	5/9/2013
Metals by ICP/MS	SW6020	(SW30)50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	4.7 J	2.4		mg/Kg-dry	10	5/10/2013
Cadmium	10	0.59		mg/Kg-dry	10	5/10/2013
Chromium	61 ⁻	1.2		mg/Kg-dry	10	5/10/2013
Copper	410	2.9		mg/Kg-dry	10	5/10/2013
Lead	1500	0.59		mg/Kg-dry	10	5/10/2013
Tin	63	5.9	**	mg/Kg-dry	10	5/10/2013
Zinc	2900	59		mg/Kg-dry	100	5/10/2013
CLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Date: 5/9/2013	Analyst: JG
Lead	0.37	0.005		mg/L	5	5/9/2013
ьН (25 °C)	SW9045	С		Prep	Date: 5/10/2013	Analyst: RW
Hq	6.7			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	21.6	0.2	*	wt%	1	5/10/2013

29 413/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-125-01(0-6)-050313

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 12:00:00 PM

DF

Matrix: Soil

Lab ID: Analyses 13050170-027B

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

10

Result

1700

Prep Date: 5/19/2013

Analyst: JG

mg/Kg-dry 100 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits .

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050170-028A

Client Sample ID: PA-125-02(0-6)-050313

Lab Order:

13050170

Tag Number:

Project: Lab ID: Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 12:05:00 PM

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.72	0.025		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW602	0 (SW30	150B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	3.1 ブ	2.4		mg/Kg-dry	10	5/10/2013
Cadmium	7.4	0.6		mg/Kg-dry	10	5/10/2013
Chromium	51	1.2		mg/Kg-dry	10	5/10/2013
Copper	280	3		mg/Kg-dry	10	5/10/2013
Lead	1100	0.6	1.0	mg/Kg-dry	10	5/10/2013
Tin	50	6	*	mg/Kg-dry	10	5/10/2013
Zinc	2200	60		mg/Kg-dry	100	5/10/2013
TCLP Metals by ICP/MS	SW131	1/6020 (\$	SW3005A)	Prep	Date: 5/9/2013	Analyst: JG
Lead	0.32	0.005		mg/L	5	5/9/2013
pH (25 °C)	SW904	5C		Prep	Date: 5/10/2013	Analyst: RW
рН	8.2			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	18.5	0.2	2.00	wt%	14	5/10/2013



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

- Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-125-02(0-6)-050313

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 12:05:00 PM

DF

Lab ID:

13050170-028B

Matrix: Soil

Analyses

Result

RL

Prep Date: 5/19/2013

Date Analyzed Analyst: JG

Metals by ICP/MS Lead

SW6020 (SW3050B) 910 9.8

mg/Kg-dry

Qualifier Units

100

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-125-03(0-6)-050313

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 12:10:00 PM

Lab ID: 13050170-029A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed		
Mercury	SW747	1A		Prep	Date: 5/9/2013	Analyst: LB		
Mercury	0.41	0.026		mg/Kg-dry	1	5/10/2013		
Metals by ICP/MS	SW602	0 (SW30	50B)	Prep	Date: 5/9/2013	Analyst: JG		
Antimony	2.6 J	2.3		mg/Kg-dry	10	5/10/2013		
Cadmium	4.8	0.57		mg/Kg-dry	10	5/10/2013		
Chromium	29	1.1		mg/Kg-dry	10	5/10/2013		
Copper	230	2.9		mg/Kg-dry	10	5/10/2013		
Lead	700	0.57		mg/Kg-dry	10	5/10/2013		
Tin	31	5.7	*	mg/Kg-dry	10	5/10/2013		
Zinc	1500	57		mg/Kg-dry	100	5/10/2013		
TCLP Metals by ICP/MS	SW131	1/6020 (S	W3005A)	Prep	Date: 5/9/2013	Analyst: JG		
Lead	0.09	0.005	•	mg/L	5	5/9/2013		
pH (25 °C)	SW904	5C		Prep	Date: 5/10/2013	Analyst: RW		
pH	7.7			pH Units	1	5/10/2013		
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW		
Percent Moisture	24.8	0.2		wt%	1	5/10/2013		



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-125-03(0-6)-050313

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 12:10:00 PM

Lab ID:

13050170-029B

Matrix: Soil

Analyses Result RL Qualifier Units DF Date Analyzed

950

Metals by ICP/MS

Lead

SW6020 (SW3050B)

10

mg/Kg-dry

Prep Date: **5/19/2013** a-dry 100 Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting ! Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-125-04(0-6)-050313

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 12:15:00 PM

Lah ID:

13050170-030A

Matrix: Soil

13030170-030A	Watrix: Soil							
Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed		
Metals by ICP/MS Lead	SW6020 1200	(SW30 0.58	,	Prep mg/Kg-dry	Date: 5/9/2013 10	Analyst: JG 5/10/2013		
Percent Moisture Percent Moisture	D2974 19.2	0.2		Prep wt%	Date: 5/9/2013	Analyst: RW 5/10/2013		

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-125-05(0-6)-050313

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 12:20:00 PM

Lah ID:

13050170-0314

Matrix: Soil

Lab ID:	13030170-031A						
Analyses		Result	RL	Qualifie	Units	DF	Date Analyzed
Metals by ICP/M	S	SW6020 1400	(SW30: 0.62		Prep mg/Kg-dry	Date: 5/9/2013 10	Analyst: JG 5/9/2013
Percent Moistur Percent Moisture		D2974 22.3	0.2		Prep wt%	Date: 5/9/2013	Analyst: RW 5/10/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting ! Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-123-01(0-6)-050313

Lab Order:

13050170

Tag Number:

Project: Lab ID: Pilsen Soil Site, Pilsen, Chicago, IL

13050170-032A

Collection Date 5/3/2013 12:50:00 PM

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed		
Mercury	SW7471	IA		Prep	Date: 5/9/2013	Analyst: LB		
Mercury	0.86	0.046		mg/Kg-dry	2	5/9/2013		
Metals by ICP/MS	SW6020) (SW3()50B)	Prep	Date: 5/9/2013	Analyst: JG		
Antimony	ND	2.4		mg/Kg-dry	10	5/9/2013		
Cadmium	5.5	0.59		mg/Kg-dry	10	5/9/2013		
Chromium	27	1.2		mg/Kg-dry	10	5/9/2013		
Copper	320	3		mg/Kg-dry	10	5/9/2013		
Lead	1100	0.59		mg/Kg-dry	10	5/9/2013		
Tin	46	5.9	*	mg/Kg-dry	10	5/9/2013		
Zinc	1900	59		mg/Kg-dry	100	5/10/2013		
TCLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Analyst: JG			
Lead	0.16	0.005		mg/L	5	5/10/2013		
pH (25 °C)	SW9045	C		Prep	Date: 5/10/2013	Analyst: RW		
pH	7.8			pH Units	1 ·	5/10/2013		
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW		
Percent Moisture	22.9	0.2	9.5	wt%	1	5/10/2013		

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

Qualifiers:

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-123-01(0-6)-050313

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 12:50:00 PM

Lab ID:

13050170-032B

Matrix: Soil

Analyses

 \mathbf{RL} Qualifier Units Result

Prep Date: 5/19/2013

DF

Date Analyzed

Metals by ICP/MS Lead

1400 9.7

Analyst: JG

SW6020 (SW3050B)

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-127-01(0-6)-050313

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 2:40:00 PM

Lab ID:

13050170-033A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471	A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	2.1	0.25		mg/Kg-dry	10	5/9/2013
Metals by ICP/MS	SW6020	(SW30)50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	2.6 J	2.3		mg/Kg-dry	10	5/9/2013
Cadmium	7.6	0.58		mg/Kg-dry	10	5/9/2013
Chromium	26	1.2		mg/Kg-dry	10	5/9/2013
Copper	520	2.9		mg/Kg-dry	10	5/9/2013
Lead	2500	0.58		mg/Kg-dry	10	5/9/2013
Tin	61	5.8	*	mg/Kg-dry	10	5/9/2013
Zinc	3200	58		mg/Kg-dry	100	5/10/2013
TCLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Date: 5/9/2013	Analyst: JG
Lead	0.94	0.005		mg/L	5	5/10/2013
pH (25 °C)	SW9045	С		Prep	Date: 5/10/2013	Analyst: RW
рН	7.5			pH Units	1	5/10/2013
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW
Percent Moisture	26.0	0.2	•	wt%	1	5/10/2013

18 6|3|13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-127-01(0-6)-050313

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 2:40:00 PM

Lab ID:

13050170-033B

Matrix: Soil

Lab ID: 13030170-033B								
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed		
In Vitro Extractable Metals by ICP/MS Lead	EPA 9 :	200/6020 0.12	(SW3005A)	Prep mg/L	Date: 5/21/2013 25	3 Analyst: JG 5/22/2013		
In Vitro Bioaccessibility Lead	EPA 9 73.3	200/6020 0.01	*	Prep %	Date: 5/22/201 3	3 Analyst: JG 5/22/2013		
Metals by ICP/MS Lead	SW60 2	20 (SW3 (•	Prep ng/Kg-dry	Date: 5/19/201 3 100	3 Analyst: JG 5/19/2013		

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050170-034A

Client Sample ID: PA-122-01(0-6)-050313

Lab Order:

13050170

Tag Number:

Project: Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 4:00:00 PM

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed	
Mercury	SW7471	Α		Prep	Date: 5/9/2013	Analyst: LB	
Mercury	0.76	0.023		mg/Kg-dry	1	5/9/2013	
Metals by ICP/MS	SW6020	(SW3)50B)	Prep	Date: 5/9/2013	Analyst: JG	
Antimony	ND	2.3		mg/Kg-dry	10	5/9/2013	
Cadmium	6.7	0.58		mg/Kg-dry	10	5/9/2013	
Chromium	36	1.2		mg/Kg-dry	10	5/9/2013	
Copper	540	2.9		mg/Kg-dry	10	5/9/2013	
Lead	1900	0.58		mg/Kg-dry	10	5/9/2013	
Tin	57	5.8	*	mg/Kg-dry	10	5/9/2013	
Zinc	3000	58		mg/Kg-dry	100	5/10/2013	
CLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Date: 5/9/2013	Analyst: JG .	
Lead	0.49	0.005		mg/L	5	5/10/2013	
ьН (25 °C)	SW9045	C	29	Prep	Date: 5/10/2013	Analyst: RW	
Hq	7.0			pH Units	1	5/10/2013	
Percent Moisture	D2974			Prep	Date: 5/9/2013	Analyst: RW	
Percent Moisture	22.4	0.2	*	wt%	1	5/10/2013	

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-122-01(0-6)-050313

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 4:00:00 PM

Lah ID:

13050170-034B

Matrix: Soil

Lab ID: 130301/0-034D	Westing Doll					
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
In Vitro Extractable Metals by ICP/MS Lead	EPA 9	200/6020 0.12	(SW3005A)	Prep mg/L	Date: 5/21/2013 25	3 Analyst: JG 5/22/2013
In Vitro Bioaccessibility Lead	EPA 9 50.4	200/6020 0.01		Pre _l %	o Date: 5/22/201 3 1	3 Analyst: JG 5/22/2013
Metals by ICP/MS Lead	SW60 2700	20 (SW3) 4.9	•	Pre _l ng/Kg-dry	p Date: 5/19/201: 100	3 Analyst: JG 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

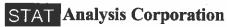
- Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-122-02(0-6)-050313

Lab Order:

13050170

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

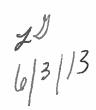
Collection Date 5/3/2013 4:05:00 PM

Lab ID:

13050170-035A

Matrix: Soil

Analyses	Result	· RL	Qualifie	er Units	DF	Date Analyzed
Mercury	SW7471	A		Prep	Date: 5/9/2013	Analyst: LB
Mercury	0.59	0.02		mg/Kg-dry	1	5/9/2013
Metals by ICP/MS	SW6020	(SW30	50B)	Prep	Date: 5/9/2013	Analyst: JG
Antimony	3 J	2.1	•	mg/Kg-dry	10	5/9/2013
Cadmium	4.5	0.52		mg/Kg-dry	10	5/9/2013
Chromium	25	1		mg/Kg-dry	10	5/9/2013
Copper	290	2.6		mg/Kg-dry	10	5/9/2013
Lead	920	0.52		mg/Kg-dry	10	5/9/2013
Tin	38	5.2	*	mg/Kg-dry	10	5/9/2013
Zinc	2400	52		mg/Kg-dry	100	5/10/2013
TCLP Metals by ICP/MS	SW1311	/6020 (5	SW3005A)	Prep	Date: 5/9/2013	Analyst: JG
Lead	0.47	0.005	•	mg/L	5	5/10/2013
pH (25 °C)	SW9045	С		Prep	Date: 5/10/2013	Analyst: RW
рН	7.4			pH Units	1	5/10/2013
Percent Molsture	D2974			Prep	Date: 5/8/2013	Analyst: RW
Percent Molsture	10.9	0.2	*	wt%	1	5/10/2013



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-122-02(0-6)-050313

Lab Order:

13050170

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/3/2013 4:05:00 PM

Lab ID:

13050170-035B

Matrix: Soil

Analyses

Result

Qualifier Units \mathbf{RL}

> Prep Date: 5/19/2013 100

Date Analyzed Analyst: JG

Metals by ICP/MS Lead

SW6020 (SW3050B) 1400

9.9

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

PILSEN AREA SOIL SITE CHICAGO, ILLINOIS DATA VALIDATION REPORT

Date: May 28, 2013

Laboratory: STAT Analysis Corporation (STAT), Chicago, Illinois

Laboratory Project #: 13050282

Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund

Technical Assessment and Response Team (START)

Analytical TDD and Work Order #: S05-0001-1211-003/20405.016.001.2038.00

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for 33 soil samples collected for the Pilsen Area Soil Site that were analyzed for the following parameters and U.S. Environmental Protection Agency methods:

- Total Metals by SW-846 Methods 6020 and 7471A
- Fine Grained Lead by SW-846 Method 6020
- Bioavailablity Lead by EPA Method 9200 and SW-846 Method 6020
- Toxicity Characteristic Leaching Procedure (TCLP) Lead by SW-846 Methods 1311 and 6020
- pH by SW-846 Method 9045C
- Moisture Content by ASTM D2974

A level II data package was requested from STAT. The data validation was conducted in general accordance with the EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

TOTAL METALS AND FINE GRAINED LEAD BY EPA SW-846 METHODS 6020 AND 7471A AND BIOAVAILABLE LEAD BY EPA METHOD 9200 AND SW-846 METHOD 6020

1. <u>Samples</u>

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. Holding Times

The samples were analyzed within the required holding time limit of 28 days for mercury and 180 days from sample collection to analysis for all other metals.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050282

3. Blank Results

Method blanks were analyzed with the metals analyses. The blanks contained no metals contamination above the reporting limits. There were detections of some metals below the reporting limits in the blanks. However, the sample results were much greater or contained no detections of these metals. No qualifications were required.

4. <u>Laboratory Control Sample (LCS) Results</u>

The LCS recoveries were within the quality control (QC) limits except for as follows.

In one LCS, antimony was detected high. Detected antimony results associated with this LCS were flagged "J" as estimated.

5. Matrix Spike (MS) and MS Duplicate (MSD) Results

STAT analyzed several site-specific MS/MSDs. The percent recoveries and relative percent differences (RPD) were within QC limits except for as follows.

In many instances of QC limits not being met, the sample concentration was more than four times the spike amount. In these instances, no qualifications were required.

In the MS and MSD of sample PA-RR14,15,16(0-6)-050613, the antimony recovery was low. The antimony result in this sample was flagged "J" as estimated.

In the MS and MSD of sample PA-351-01(0-6)-050713, the copper recovery was high and the antimony recovery was low. The copper result in this sample was flagged "J" and the quantiation limit for antimony was flagged "UJ" as estimated.

6. Field Duplicate Results

There are two field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. There is no established QC limit for RPD for field duplicates; however, 50 RPD is generally used for evaluation. The RPDs for detected metals were below 50 which is acceptable.

7. Overall Assessment

The metals data are acceptable for use as qualified based on the information received.

Data Validation Report
Pilsen Area Soil Site
STAT Analysis Corporation
Laboratory Project #: 13050282

TCLP METALS BY EPA SW-846 METHODS 1311 AND 6020

1. Samples

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. Holding Times

The samples were analyzed within the required holding time limit of 180 days from sample collection.

3. Blank Results

Method blanks were analyzed with the metals analyses. Some of the blanks contained some minor lead contamination. However, the TCLP lead results were much greater than the blank results and no qualifications were required.

4. LCS Results

The LCS recoveries were within the QC limits.

5. MS and MSD Results

STAT analyzed two site-specific MS/MSD samples. The percent recoveries and RPDs were within QC limits except for as follows.

6. Field Duplicate Results

There are two field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. There is no established QC limit for RPD for field duplicates; however, 50 RPD is generally used for evaluation. The RPD for one of the field duplicates was below 50 which is acceptable. The RPD for field duplicate PA-RR01,02(6-24)050613D had a high RPD of 134 indicating sample heterogeneity associated with TCLP lead in this sample.

7. Overall Assessment

The TCLP lead data are acceptable for use as qualified based on the information received.

GENERAL CHEMISTRY PARAMETERS (pH by SW-846 Method 9045C and Moisture Content by ASTM D2974)

1. <u>Samples</u>

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. <u>Holding Times</u>

The holding time for pH is "as soon as possible" and the holding time for moisture is 28 days. The holding time for moisture was met. For pH, the samples were analyzed approximately 6-7 days from sample collection. No qualifications were applied.

3. Blank Results

Method blanks were analyzed with the moisture analyses and were all non-detect for moisture which is acceptable.

4. <u>LCS Results</u>

LCSs were analyzed with the moisture analyses. The LCS recoveries were within the QC limits.

5. Laboratory Duplicates

Laboratory duplicates were analyzed with the pH and moisture analyses. The RPDs were within QC limits.

6. Field Duplicate Results

There are two field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. The RPDs were below 50 which is acceptable.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050282

7. Overall Assessment

The pH and moisture data are acceptable for use as qualified based on the information received.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050282

ATTACHMENT A SAMPLE LIST

Date: May 23, 2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL Work Order Sample Summary

Lab Order: 13050282

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13050282-001A	PA-RR14,15,16(0-6)-050613		5/6/2013 3:40:00 PM	5/7/2013
13050282-001B	PA-RR14,15,16(0-6)-050613	Fine Grained	5/6/2013 3:40:00 PM	5/3/2013
13050282-002A	PA-RR14,15,16(6-24)-05061	3	5/6/2013 3:50:00 PM	5/7/2013
13050282-002B	PA-RR14,15,16(6-24)-05061	3Fine Grained	5/6/2013 3:50:00 PM	5/7/2013
13050282-003A	PA-RR11,13(0-6)-050613		5/6/2013 4:00:00 PM	5/7/2013
13050282-003B	PA-RR11,13(0-6)-050613	Fine Grained	5/6/2013 4:00:00 PM	5/7/2013
13050282-004A	PA-RR11,13(6-24)-050613		5/6/2013 4:05:00 PM	5/7/2013
13050282-004B	PA-RR11,13(6-24)-050613	Fine Grained	5/6/2013 4:05:00 PM	5/7/2013
13050282-005A	PA-RR10,12(0-6)-050613		5/6/2013 4:15:00 PM	5/7/2013
13050282-005B	PA-RR10,12(0-6)-050613	Fine Grained	5/6/2013 4:15:00 PM	5/7/2013
13050282-006A	PA-RR10,12(6-24)-050613		5/6/2013 4:20:00 PM	5/7/2013
13050282-006B	PA-RR10,12(6-24)-050613	Fine Grained	5/6/2013 4:20:00 PM	5/7/2013
13050282-007A	PA-RR07,08(0-6)-050613		5/6/2013 4:30:00 PM	5/7/2013
13050282-007B	PA-RR07,08(0-6)-050613	Fine Grained	5/6/2013 4:30:00 PM	5/7/2013
13050282-008A	PA-RR07,08(6-24)-050613		5/6/2013 4:35:00 PM	5/7/2013
13050282-008B	PA-RR07,08(6-24)-050613	Fine Grained	5/6/2013 4:35:00 PM	5/7/2013
13050282-009A	PA-RR01,02(0-6)-050613		5/6/2013 4:40:00 PM	5/7/2013
13050282-009B	PA-RR01,02(0-6)-050613	Fine Grained	5/6/2013 4:40:00 PM	5/7/2013
13050282-010A	PA-RR01,026-24)-050613		5/6/2013 4:45:00 PM	5/7/2013
13050282-010B	PA-RR01,026-24)-050613	Fine Grained	5/6/2013 4:45:00 PM	5/7/2013
13050282-011A	PA-RR04,06(0-6)-050613		5/6/2013 4:55:00 PM	5/7/2013
13050282-011B	PA-RR04,06(0-6)-050613	Fine Grained	5/6/2013 4:55:00 PM	5/7/2013
13050282-011C	PA-RR04,06(0-6)-050613	Course Grained	5/6/2013 4:55:00 PM	5/7/2013
13050282-012A	PA-RR04,06(6-24)-050613		5/6/2013 5:00:00 PM	5/7/2013
13050282-012B	PA-RR04,06(6-24)-050613	Fine Grained	5/6/2013 5:00:00 PM	5/7/2013
13050282-013A	PA-RR01,02(6-24)-050613D		5/6/2013 4:50:00 PM	5/7/2013
13050282-013B	PA-RR01,02(6-24)-050613D	Fine Grained	5/6/2013 4:50:00 PM	5/7/2013
13050282-014A	PA-375-01(0-6)-050713D		5/7/2013 9:40:00 AM	5/7/2013
13050282-014B	PA-375-01(0-6)-050713D	Fine Grained	5/7/2013 9:40:00 AM	5/7/2013
13050282-014C	PA-375-01(0-6)-050713D	Course Grained	5/7/2013 9:40:00 AM	5/7/2013
13050282-015A	PA-375-02(0-12)-050713		5/7/2013 9:45:00 AM	5/7/2013
13050282-015B	PA-375-02(0-12)-050713	Fine Grained	5/7/2013 9:45:00 AM	5/7/2013
13050282-016A	PA-370-01(0-6)-050713		5/7/2013 10:45:00 AM	5/7/2013
13050282-016B	PA-370-01(0-6)-050713	Fine Grained	5/7/2013 10:45:00 AM	5/7/2013
13050282-017A	PA-370-01(0-6)-050713D		5/7/2013 10:50:00 AM	5/7/2013
13050282-017B	PA-370-01(0-6)-050713D	Fine Grained	5/7/2013 10:50:00 AM	5/7/2013
	PA-370-02(0-6)-050713		5/7/2013 10:55:00 AM	5/7/2013
13050282-018B	PA-370-02(0-6)-050713	Fine Grained	5/7/2013 10:55:00 AM	5/7/2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL

Lab Order: 13050282

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13050282-019A	PA-370-02(6-12)-050713		5/7/2013 11:00:00 AM	5/7/2013
13050282-019B	PA-370-02(6-12)-050713	Fine Grained	5/7/2013 11:00:00 AM	5/7/2013
13050282-020A	PA-369-01(0-6)-050713		5/7/2013 12:20:00 PM	5/7/2013
13050282-020B	PA-369-01(0-6)-050713	Fine Grained	5/7/2013 12:20:00 PM	5/7/2013
13050282-021A	PA-369-01(0-2)-050713		5/7/2013 12:15:00 PM	5/7/2013
13050282-021B	PA-369-01(0-2)-050713	Fine Grained	5/7/2013 12:15:00 PM	5/7/2013
13050282-022A	PA-369-02(0-12)-050713		5/7/2013 12:25:00 PM	5/7/2013
13050282-022B	PA-369-02(0-12)-050713	Fine Grained	5/7/2013 12:25:00 PM	5/7/2013
13050282-023A	PA-369-03,04(0-6)-050713		5/7/2013 12:30:00 PM	5/7/2013
13050282-023B	PA-369-03,04(0-6)-050713	Fine Grained	5/7/2013 12:30:00 PM	5/7/2013
13050282-024A	PA-371-01(0-6)-050713		5/7/2013 2:15:00 PM	5/7/2013
13050282-024B	PA-371-01(0-6)-050713	Fine Grained	5/7/2013 2:15:00 PM	5/7/2013
13050282-025A	PA-371-02(0-6)-050713		5/7/2013 2:20:00 PM	5/7/2013
13050282-025B	PA-371-02(0-6)-050713	Fine Grained	5/7/2013 2:20:00 PM	5/7/2013
13050282-026A	PA-371-02(0-6)-050713D		5/7/2013 2:25:00 PM	5/7/2013
13050282-026B	PA-371-02(0-6)-050713D	Fine Grained	5/7/2013 2:25:00 PM	5/7/2013
13050282-027A	PA-349-01(0-6)-050713		5/7/2013 3:20:00 PM	5/7/2013
13050282-027B	PA-349-01(0-6)-050713	Fine Grained	5/7/2013 3:20:00 PM	5/7/2013
13050282-028A	PA-349-02(0-12)-050713		5/7/2013 3:25:00 PM	5/7/2013
13050282-028B	PA-349-02(0-12)-050713	Fine Grained	5/7/2013 3:25:00 PM	5/7/2013
13050282-029A	PA-349-03(0-6)-050713		5/7/2013 4:30:00 PM	5/7/2013
13050282-029B	PA-349-03(0-6)-050713	Fine Grained	5/7/2013 4:30:00 PM	5/7/2013
13050282-030A	PA-351-01(0-6)-050713		5/7/2013 3:45:00 PM	5/7/2013
13050282-030B	PA-351-01(0-6)-050713	Fine Grained	5/7/2013 3:45:00 PM	5/7/2013
13050282-031A	PA-141-01(0-6)-050713		5/7/2013 5:40:00 PM	5/7/2013
13050282-031B	PA-141-01(0-6)-050713	Fine Grained	5/7/2013 5:40:00 PM	5/7/2013
13050282-032A	PA-141-02(0-6)-050713		5/7/2013 5:45:00 PM	5/7/2013
13050282-032B	PA-141-02(0-6)-050713	Fine Grained	5/7/2013 5:45:00 PM	5/7/2013
13050282-033A	PA-141-03(0-6)-050713		5/7/2013 5:50:00 PM	5/7/2013
13050282-033B	PA-141-03(0-6)-050713	Fine Grained	5/7/2013 5:50:00 PM	5/7/2013

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050282

ATTACHMENT B

STAT ANALYSIS CORPORATION RESULTS SUMMARY WITH QUALIFIERS



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR14,15,16(0-6)-050613

Lab Order:

13050282

Tag Number:

Project: Lab ID: Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 3:40:00 PM

13050282-001A Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471A	1		Prep	Date: 5/13/2013	Analyst: LB
Mercury	1.2	0.2		mg/Kg-dry	10	5/13/2013
Metals by ICP/MS	SW6020	(SW30	50B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	4.7 🏲	4.3	•	mg/Kg-dry	20	5/14/2013
Cadmium	9.5	1.1		mg/Kg-dry	20	5/14/2013
Chromium	900	2.2		mg/Kg-dry	20	5/14/2013
Copper	770	5.4		mg/Kg-dry	20	5/14/2013
Lead	1500	1.1		mg/Kg-dry	20	5/14/2013
Tin	130	11	*	mg/Kg-dry	20	5/14/2013
Zinc	5800	54		mg/Kg-dry	100	5/14/2013
TCLP Metals by ICP/MS	SW1311/6	i020 (S	W3005A)	Prep	Date: 5/12/2013	Analyst: JG
Lead	0.75	0.005	Ť	mg/L	5	5/12/2013
pH (25 °C)	SW9045C	:		Prep	Date: 5/14/2013	Analyst: PBG
рН	8.2			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	11.8	0.2	*	wt%	1	5/11/2013

28 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR14,15,16(0-6)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Collection Date 5/6/2013 3:40:00 PM

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Lab ID: Analyses 13050282-001B

Matrix: Soil

Date Analyzed

Metals by ICP/MS

Result

SW6020 (SW3050B)

RL Qualifier Units

Prep Date: 5/19/2013

100

Analyst: JG

Lead

3200

9.9

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR14,15,16(6-24)-050613

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 3:50:00 PM

Lab ID:

13050282-002A

Matrix: Soil

Analyses	Result	RL Qualific	er Units	DF	Date Analyzed
Mercury	SW7471	A	Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.78	0.04	mg/Kg-dry	2	5/13/2013
Metals by ICP/MS	SW6020	(SW3050B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	5.2 J	4.5	mg/Kg-dry	20	5/14/2013
Cadmium	11	1.1	mg/Kg-dry	20	5/14/2013
Chromium	2000	2.3	mg/Kg-dry	20	5/14/2013
Copper	900	5.7	mg/Kg-dry	20	5/14/2013
Lead	2200	1.1	mg/Kg-dry	20	5/14/2013
Tin	120	11 *	mg/Kg-dry	20	5/14/2013
Zinc	4700	57	mg/Kg-dry	100	5/14/2013
TCLP Metals by ICP/MS	SW1311/	/6020 (SW3005A)) Prep	Date: 5/12/2013	Analyst: JG
Lead	0.35	0.005	mg/L	5	5/12/2013
pH (25 °C)	SW9045	С	Prep	Date: 5/14/2013	Analyst: PBG
PΗ	7.9		pH Units	1	5/14/2013
Percent Moisture	D2974	no *	•	Date: 5/11/2013	Analyst: RW
Percent Moisture	16.6	0.2 *	wt%	1	5/11/2013



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR14,15,16(6-24)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 3:50:00 PM

Lab ID:

13050282-002B

Matrix: Soil

Analyses

Result

RL Qualifier Units

DF

Date Analyzed

Metals by ICP/MS

SW6020 (SW3050B) 2200

10

Prep Date: 5/19/2013

Analyst: JG

Lead

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR11,13(0-6)-050613

Lab Order:

13050282

Tag Number:

Project:

13030262

Collection Date 5/6/2013 4:00:00 PM

Lab ID:

13050282-003A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471	A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.55	0.02		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW6020	(SW30	50B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	6.4 J	4.6	•	mg/Kg-dry	20	5/14/2013
Cadmium	9.3	5.7		mg/Kg-dry	100	5/13/2013
Chromium	220	11		mg/Kg-dry	100	5/13/2013
Copper	650	5.7		mg/Kg-dry	20	5/14/2013
Lead	940	11		mg/Kg-dry	100	5/13/2013
Tin	70	11	*	mg/Kg-dry	20	5/14/2013
Zinc	2200	57		mg/Kg-dry	100	5/14/2013
TCLP Metals by ICP/MS	SW1311/	6020 (S	W3005A)	Prep	Date: 5/12/2013	Analyst: JG
Lead	0.13	0.005	•	mg/L	5	5/12/2013
pH (25 °C)	SW90456	C		Prep	Date: 5/14/2013	Analyst: PBG
pH	7.9			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	13.0	0.2	*	wt%	1	5/11/2013



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR11,13(0-6)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:00:00 PM

Lab ID:

13050282-003B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

Prep Date: 5/19/2013

Analyst: JG 5/19/2013

900 9.7 mg/Kg-dry 100

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR11,13(6-24)-050613

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:05:00 PM

Lab ID:

13050282-004A

Matrix: Soil

Analyses	Result	RL	Qualific	er Units	DF	Date Analyzed
Mercury	SW7471/	4		Prep	Date: 5/13/20	13 Analyst: LB
Mercury	0.58	0.02		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW6020	(SW30	050B)	Prep	Date: 5/13/20	13 Analyst: JG
Antimony	8.8 J	4.5	•	mg/Kg-dry	20	5/14/2013
Cadmium	8.6	5.6		mg/Kg-dry	100	5/13/2013
Chromium	43	11		mg/Kg-dry	100	5/13/2013
Copper	360	5.6		mg/Kg-dry	20	5/14/2013
Lead	1000	11		mg/Kg-dry	100	5/13/2013
Tin	110	11	*	mg/Kg-dry	20	5/14/2013
Zinc	1100	56		mg/Kg-dry	100	5/14/2013
TCLP Metals by ICP/MS	SW1311/	6020 (SW3005A)	Prep	Date: 5/12/20	13 Analyst: JG
Lead	0.022	0.005		mg/L	5	5/12/2013
pH (25 °C)	SW90456	;		Prep	Date: 5/14/20	13 Analyst: PBG
pH	7.9			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/11/20	13 Analyst: RW
Percent Moisture	15.3	0.2	*	wt%	al)	5/11/2013

48 5|28|13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR11,13(6-24)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:05:00 PM

Lab ID:

13050282-004B

Matrix: Soil

Analyses

Result

Qualifier Units

DF Prep Date: 5/19/2013

Date Analyzed Analyst: JG

Metals by ICP/MS

Lead

SW6020 (SW3050B) 980

9.9

mg/Kg-dry

100

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR10,12(0-6)-050613

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:15:00 PM

Lab ID:

13050282-005A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471	IA		Prep	Date: 5/13/2013	Analyst: LB
Mercury	1.1	0.22		mg/Kg-dry	10	5/13/2013
Metals by ICP/MS	SW6020	(SW30	50B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	14 5	4.5		mg/Kg-dry	20	5/14/2013
Cadmium	17	5.6		mg/Kg-dry	100	5/13/2013
Chromium	53	11		mg/Kg-dry	100	5/13/2013
Copper	1000	5.6		mg/Kg-dry	20	5/14/2013
Lead	1800	11		mg/Kg-dry	100	5/13/2013
Tin	150	11	•	mg/Kg-dry	20	5/14/2013
Zinc	3800	56		mg/Kg-dry	100	5/14/2013
TCLP Metals by iCP/MS	SW1311/6020 (SW3005A)			Prep Date: 5/14/2013		Analyst: JG
Lead	0.52	0.005	,	mg/L	5	5/14/2013
pH (25 °C)	SW9045	iC		Prep	Date: 5/14/2013	Analyst: PBG
pH	8.0			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	15.3	0.2	*	wt%	1	5/11/2013

XX 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR10,12(0-6)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:15:00 PM

Lab ID:

13050282-005B

Matrix: Soil

Analyses

Lead

Result

RL Qualifier Units

DF

Date Analyzed ·

Metals by ICP/MS

SW6020 (SW3050B) 2600

9.9

mg/Kg-dry

Prep Date: 5/19/2013 100

Analyst: JG 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR10,12(6-24)-050613

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:20:00 PM

Lab ID:

13050282-006A

Matrix: Soil

Analyses	Re	sult	RL	Qualifie	r Units	DF	Date Analyzed
Mercury		SW7471/	4		Prep	Date: 5/13/2013	Analyst: LB
Mercury	1	.5	0.21		mg/Kg-dry	10	5/13/2013
Metals by ICP/MS		SW6020	(SW30	50B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	3	4 J	4.8	·	mg/Kg-dry	20	5/14/2013
Cadmium	1	2	5.9		mg/Kg-dry	100	5/13/2013
Chromium	3	5	12		mg/Kg-dry	100	5/13/2013
Copper	98	0	5.9		mg/Kg-dry	20	5/14/2013
Lead	240	0	12		mg/Kg-dry	100	5/13/2013
Tin	17	0	12	*	mg/Kg-dry	20	5/14/2013
Zinc	220	0	59		mg/Kg-dry	100	5/14/2013
TCLP Metals by iCP/MS		SW1311/	6020 (S	W3005A)	Prep	Date: 5/14/2013	Analyst: JG
Lead	0.6		0.005	•	mg/L	5	5/15/2013
pH (25 °C)		SW90450			Prep	Date: 5/14/2013	Analyst: PBG
pH	7.	9			pH Units	1	5/14/2013
Percent Moisture	100	D2974			Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	22.	2	0.2	*	wt%	1	5/11/2013

1B 5|28|13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR10,12(6-24)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:20:00 PM

Lab ID:

13050282-006B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

SW6020 (SW3050B)

Prep Date: 5/19/2013

Analyst: JG

Lead

2300

9.4

mg/Kg-dry

100

5/19/2013

· Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR07,08(0-6)-050613

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:30:00 PM

Lab ID:

13050282-007A

Matrix: Soil

Analyses	Result	RL Qual	ifier Units	DF	Date Analyzed
Mercury	SW747	/1A	Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.72	0.022	mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	20 (SW3050B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	12 J	4.1	mg/Kg-dry	20	5/14/2013
Cadmium	71	5.1	mg/Kg-dry	100	5/13/2013
Chromium	45	10	mg/Kg-dry	100	5/13/2013
Copper	6500	250	mg/Kg-dry	1000	5/14/2013
Lead	6800	10	mg/Kg-dry	100	5/13/2013
Tin	540	10	mg/Kg-dry	20	5/14/2013
Zinc	46000	510	mg/Kg-dry	1000	5/14/2013
TCLP Metals by ICP/MS	SW131	1/6020 (SW300	5A) Prep	Date: 5/14/2013	Analyst: JG
Lead	3.6	0.005	mg/L	5	5/15/2013
pH (25 °C)	SW904	15C	Prep	Date: 5/14/2013	Analyst: PBG
рH	8.4		pH Units	1	5/14/2013
Percent Moisture	D2974		Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	8.9	0.2 *	wt%	1	5/11/2013

2B 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

1 - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR07,08(0-6)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:30:00 PM

DF

Lab ID:

13050282-007B

Matrix: Soil

Analyses

Result

Qualifier Units

Date Analyzed

Metals by ICP/MS Lead

SW6020 (SW3050B) 7900

mg/Kg-dry

Prep Date: 5/19/2013

Analyst: JG 5/19/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR07,08(6-24)-050613

Lab Order:

13050282

Tag Number:

Project:

Collection Date 5/6/2013 4:35:00 PM

Lab ID:

-13050282-008A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471/	A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.65	0.02		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW6020	(SW30)50B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	9 ブ	4.5	•	mg/Kg-dry	20	5/14/2013
Cadmium	49	5.7		mg/Kg-dry	100	5/13/2013
Chromium	43	11		mg/Kg-dry	100	5/13/2013
Copper	3700	280		mg/Kg-dry	1000	5/14/2013
Lead	5500	11		mg/Kg-dry	100	5/13/2013
Tìn	450	11	*	mg/Kg-dry	20	5/14/2013
Zinc	24000	570		mg/Kg-dry	1000	5/14/2013
TCLP Metals by ICP/MS	SW1311/	6020 (SW3005A)	Prep	Date: 5/14/2013	Analyst: JG
Lead	13	0.005	•	mg/L	5	5/15/2013
pH (25 °C)	SW90450			Prep	Date: 5/14/2013	Analyst: PBG
pH	9.1			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	19.0	0.2	*	wt%	(d)	5/11/2013

ZX 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

- Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR07,08(6-24)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

rag Number. The Gramed

Lab ID:

Lead

Collection Date 5/6/2013 4:35:00 PM

Matrix: Soil

Analyses

13050282-008B

RI

L Qualifier Units

DI

Date Analyzed

Metals by ICP/MS

9500

Result

SW6020 (SW3050B) 0 9.9

mg/Kg-dry

Prep Date: **5/19/2013** Judy 100

Analyst: **JG** 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050282-009A

Client Sample ID: PA-RR01,02(0-6)-050613

Lab Order:

13050282

Tag Number:

Project: Lab ID: Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:40:00 PM

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	′1A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.52	0.023		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	19 J	3.9	·	mg/Kg-dry	20	5/14/2013
Cadmium	16	4.9		mg/Kg-dry	100	5/13/2013
Chromium	64	9.8		mg/Kg-dry	100	5/13/2013
Copper	9400	240		mg/Kg-dry	1000	5/14/2013
Lead	4000	9.8		mg/Kg-dry	100	5/13/2013
Tin	1300	9.8	*	mg/Kg-dry	20	5/14/2013
Zinc	26000	490		mg/Kg-dry	1000	5/14/2013
TCLP Metals by ICP/MS	SW131	1/6020 (SW3005A)	Prep	Date: 5/14/2013	Analyst: JG
Lead	0.87	0.005		mg/L	5	5/15/2013
pH (25 °C)	SW904	15C		Prep	Date: 5/14/2013	Analyst: PBG
pH	8.0			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	14.3	0.2		wt%	1	5/11/2013

21 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR01,02(0-6)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:40:00 PM

Lab ID:

13050282-009B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Prep Date: 5/19/2013

Analyst: JG

Metals by ICP/MS

Lead

SW6020 (SW3050B) 4100 9.7

mg/Kg-dry

100

5/19/2013

Date Analyzed

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR01,026-24)-050613

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:45:00 PM

Lab ID:

13050282-010A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.63	0.022		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	0 (SW30:	50B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	7.4 J	4.3		mg/Kg-dry	20	5/14/2013
Cadmium	6.1	1.1		mg/Kg-dry	20	5/14/2013
Chromium	34	2.1		mg/Kg-dry	20	5/14/2013
Copper	3700	270		mg/Kg-dry	1000	5/14/2013
Lead	1700	11		mg/Kg-dry	100	5/13/2013
Tin	560	11	*	mg/Kg-dry	20	5/14/2013
Zinc	17000	530		mg/Kg-dry	1000	5/14/2013
TCLP Metals by ICP/MS	SW1311	I/6020 (S	W3005A)	Prep	Date: 5/14/2013	Analyst: JG
Lead	0.98	0.005		mg/L	5	5/15/2013
oH (25 °C)	SW904	5C		Prep	Date: 5/14/2013	Analyst: PBG
pΗ	7.6			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	15.4	0.2		wt%	All l	5/11/2013

24 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR01,026-24)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:45:00 PM

Lab ID:

13050282-010B

Matrix: Soil

Date Analyzed

Analyses

Result

RL Qualifier Units

DF Prep Date: 5/19/2013

Analyst: JG

Lead

2200

mg/Kg-dry

Metals by ICP/MS

SW6020 (SW3050B)

9.8

100

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR04,06(0-6)-050613

Lab Order:

13050282

Tag Number:

Project:

Collection Date 5/6/2013 4:55:00 PM

Lab ID:

13050282-011A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL (Qualifie	r Units	DF .	Date Analyzed
Mercury	SW747	71A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.61	0.02		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	20 (SW305	0B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	18 J	4.4	•	mg/Kg-dry	20	5/14/2013
Cadmium	140	1.1		mg/Kg-dry	20	5/14/2013
Chromium	56	2.2		mg/Kg-dry	20	5/14/2013
Copper	11000	280		mg/Kg-dry	1000	5/14/2013
Lead	11000	56		mg/Kg-dry	1000	5/14/2013
Tin	980	11	*	mg/Kg-dry	20	5/14/2013
Zinc	78000	560		mg/Kg-dry	1000	5/14/2013
TCLP Metals by ICP/MS	SW131	11/6020 (SV	N3005A)	Prep	Date: 5/14/2013	Analyst: JG
Lead	12	0.005	,	mg/L	5	5/15/2013
pH (25 °C)	SW904	15C		Prep	Date: 5/14/2013	Analyst: PBG
pH	8.1			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	12.8	0.2		wt%	1	5/11/2013

JH 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

 \boldsymbol{B} - Analyte detected in the associated Method $\boldsymbol{B} lank$

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR04,06(0-6)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:55:00 PM

Lab ID:

13050282-011B

Matrix: Soil

13030202 0110		- 1		IVESTELL	A. Doll	
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
In Vitro Extractable Metals by ICP/MS		200/6020	(SW3005A)		Date: 5/19/2013	•
Lead	180	1	-	mg/L	200	5/22/2013
In Vitro Bioaccessibility	EPA 9	200/6020		Prep	Date: 5/22/2013	Analyst: JG
Lead	77.2	0.01		%	1	5/22/2013
Metals by ICP/MS	SW602	20 (SW30)50B)	Prep	Date: 5/19/2013	Analyst: JG
Lead	23000	4.9	n	ng/Kg-dry	50	5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050282-012A

Client Sample ID: PA-RR04,06(6-24)-050613

Lab Order:

13050282

Tag Number:

Project:

13030282

Collection Date 5/6/2013 5:00:00 PM

Project: Lab ID: Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471			Prep	Date: 5/13/2013	Analyst: LB
Mercury	1.6	0.22		mg/Kg-dry	10	5/13/2013
Metals by ICP/MS	SW6020	(SW30)50B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	ND	4.1	•	mg/Kg-dry	20	5/14/2013
Cadmium	16	1		mg/Kg-dry	20	5/14/2013
Chromium	27	2		mg/Kg-dry	20	5/14/2013
Copper	1800	250		mg/Kg-dry	1000	5/14/2013
Lead	1700	10		mg/Kg-dry	100	5/13/2013
Tin	240	10	*	mg/Kg-dry	20	5/14/2013
Zinc	9900	510		mg/Kg-dry	1000	5/14/2013
TCLP Metals by ICP/MS	SW1311/	6020 (SW3005A)	Prep	Date: 5/14/2013	Analyst: JG
Lead	0.24	0.005		mg/L	5	5/15/2013
pH (25 °C)	SW90450	:		Prep	Date: 5/14/2013	Analyst: PBG
pН	8.3			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	13.5	0.2		wt%	-1	5/11/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR04,06(6-24)-050613

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 5:00:00 PM

Lab ID:

Lead

13050282-012B

Matrix: Soil

Analyses

Result

 \mathbf{RL} Qualifier Units

DF Prep Date: 5/19/2013

Date Analyzed Analyst: JG

Metals by ICP/MS

SW6020 (SW3050B) 2600

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample réceived past holding time - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050282-013A

Client Sample ID: PA-RR01,02(6-24)-050613D

Tag Number:

Lab Order:

13050282

Collection Date 5/6/2013 4:50:00 PM

Project: Lab ID: Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses		Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury		SW747	71A		Prep	Date: 5/13/2013	Analyst: LB
Mercury		0.59	0.02		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS		SW602	20 (SW30	50B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony		ND	23	•	mg/Kg-dry	100	5/13/2013
Cadmium		8.6	1.2		mg/Kg-dry	20	5/14/2013
Chromium		35	2.3		mg/Kg-dry	20	5/14/2013
Copper		2500	290		mg/Kg-dry	1000	5/14/2013
Lead	98	1500	58		mg/Kg-dry	1000	5/14/2013
Tin		600	12	*	mg/Kg-dry	20	5/14/2013
Zinc	90	14000	580		mg/Kg-dry	1000	5/14/2013
TCLP Metals by ICI	P/MS	SW131	11/6020 (S	W3005A)	Prep	Date: 5/14/2013	Analyst: JG
Lead		5	0.005	•	mg/L	5	5/15/2013
pH (25 °C)		SW904	15C		Prep	Date: 5/14/2013	Analyst: PBG
рH		7.7			pH Units	1	5/14/2013
Percent Moisture		D2974			Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture		15.7	0.2	*	wt%	1	5/11/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-RR01,02(6-24)-050613D

DF

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/6/2013 4:50:00 PM

Lab ID:

13050282-013B

Matrix: Soil

Analyses

Lead

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

SW6020 (SW3050B) 2200

Result

9.9

mg/Kg-dry

Prep Date: 5/19/2013 100

Analyst: JG 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-375-01(0-6)-050713D

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 9:40:00 AM

Lab ID:

13050282-014A

Matrix: Soil

Analyses	Result	RL (Qualifier	Units	DF	Date Analyzed
Mercury	SW7471	A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	1 0	0.25	ı	ng/Kg-dry	10	5/13/2013
Metals by ICP/MS	SW6020	(SW305	0B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	ND	4.9		ng/Kg-dry	20	5/14/2013
Cadmium	11	1.2	!	ng/Kg-dry	20	5/14/2013
Chromium	40	2.5	r	ng/Kg-dry	20	5/14/2013
Copper	680	31	1	ng/Kg-dry	100	5/14/2013
Lead	1800	6.2	1	ng/Kg-dry	100	5/14/2013
Tin	84	12	* 1	ng/Kg-dry	20	5/14/2013
Zinc	2900	62	r	ng/Kg-dry	100	5/14/2013
CLP Metals by ICP/MS	SW1311	/6020 (SV	V3005A)	Prep	Date: 5/14/2013	Analyst: JG
Lead	0.16	0.005	·	mg/L	5	5/15/2013
oH (25 °C)	SW9045	С		Prep	Date: 5/14/2013	Analyst: PBG
pΗ	7.0			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	26.4	0.2	*	wt%	546	5/11/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

- Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, 1L 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-375-01(0-6)-050713D

Lab Order:

13050282

Tag Number: Fine Grained

Project: Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 9:40:00 AM

13050282-014B

Matrix: Soil

				1/2001	5011	
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
In Vitro Extractable Metals by ICP/MS	EPA 9	200/6020	(SW3005A)	Prep	Date: 5/19/2013	3 Analyst: JG
Lead	22	0.1	*	mg/L	20	5/22/2013
In Vitro Bioaccessibility	EPA 9	200/6020		Prep	Date: 5/22/2013	3 Analyst: JG
Lead	80.9	0.01		%	1	5/22/2013
Metals by ICP/MS	SW602	20 (SW3	050B)	Prep	Date: 5/19/2013	B Analyst: JG
Lead	2700	10	r	ng/Kg-dry	100	5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-375-02(0-12)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 9:45:00 AM

Lab ID:

13050282-015A

Matrix: Soil

Analyses	Result	RL Qualif	ier Units	DF .	Date Analyzed
Мегсигу	SW7471	A	Prep	Date: 5/13/2013	Analyst: LB
Mercury	1.3	0.23	mg/Kg-dry	10	5/13/2013
Metals by ICP/MS	SW6020	(SW3050B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	ND	25	mg/Kg-dry	100	5/13/2013
Cadmium	14	1.2	mg/Kg-dry	20	5/14/2013
Chromium	49	2.5	mg/Kg-dry	20	5/14/2013
Copper	750	31	mg/Kg-dry	100	5/14/2013
Lead	2500	6.2	mg/Kg-dry	100	5/14/2013
Tin	130	12	mg/Kg-dry	20	5/14/2013
Zinc	3300	62	mg/Kg-dry	100	5/14/2013
CLP Metals by ICP/MS	SW1311	/6020 (SW3005/	A) Prep	Date: 5/14/2013	Analyst: JG
Lead	0.4	0.005	mg/L	5	5/15/2013
oH (25 °C)	SW9045	iC	Prep	Date: 5/14/2013	Analyst: PBG
На	7.3		pH Units	1	5/14/2013
Percent Moisture	D2974		Prep	Date: 5/11/2013	Analyst: RW
Percent Moisture	24.8	0.2 *	wt%	1	5/11/2013

Qualifie	re

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-375-02(0-12)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 9:45:00 AM

Lab ID:

Analyses

13050282-015B

Matrix: Soil

Date Analyzed

Result

Qualifier Units

Prep Date: 5/19/2013

Metals by ICP/MS Lead

9.8

Analyst: JG

SW6020 (SW3050B)

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits .

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-370-01(0-6)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 10:45:00 AM

Lab ID:

13050282-016A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed	
Mercury	SW747	71A		Prep	Date: 5/13/2013	Analyst: LB	
Mercury	0.43	0.021		mg/Kg-dry	1	5/13/2013	
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 5/13/2013	Analyst: JG	
Antimony	ND	4.6		mg/Kg-dry	20	5/14/2013	
Cadmium	6.9	1.1		mg/Kg-dry	20	5/14/2013	
Chromium	44	2.3		mg/Kg-dry	20	5/14/2013	
Copper	150	29		mg/Kg-dry	100	5/14/2013	
Lead	700	5.7		mg/Kg-dry	100	5/14/2013	
Tin	28	11	*	mg/Kg-dry	20	5/14/2013	
Zinc	1600	57		mg/Kg-dry	100	5/14/2013	
TCLP Metals by ICP/MS	SW131	1/6020 (3	SW3005A)	Prep	Date: 5/14/2013	Analyst: JG	
Lead	0.33	0.005	·	mg/L	5	5/15/2013	
pH (25 °C)	SW904	SW9045C		Prep	Date: 5/14/2013	Analyst: PBG	
рН	7.7			pH Units	1	5/14/2013	
Percent Moisture	D2974			Prep	Date: 5/13/2013	Analyst: RW	
Percent Moisture	18.5	0.2		wt%	1	5/14/2013	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-370-01(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Collection Date 5/7/2013 10:45:00 AM

Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Analyses

13050282-016B

Matrix: Soil

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 1200

Result

9.8

RL

mg/Kg-dry

Qualifier Units

Prep Date: 5/19/2013 100

Analyst: JG 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-370-01(0-6)-050713D

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 10:50:00 AM

Lab ID: 13050282-017A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/13/201	3 Analyst: LB
Mercury	0.48	0.022		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	0 (SW30	50B)	Prep	Date: 5/13/201	3 Analyst: JG
Antimony	ND	4.8	-	mg/Kg-dry	20	5/14/2013
Cadmium	5.5	1.2		mg/Kg-dry	20	5/14/2013
Chromium	46	12		mg/Kg-dry	100	5/13/2013
Copper	150	30		mg/Kg-dry	100	5/14/2013
Lead	950	1.2		mg/Kg-dry	20	5/14/2013
Tin	25	12	*	mg/Kg-dry	20	5/14/2013
Zinc	1100	60		mg/Kg-dry	100	5/14/2013
TCLP Metals by ICP/MS	SW131 ⁻	1/6020 (\$	SW3005A)) Prep Date: 5/14/2013		3 Analyst: JG
Lead	0.27	0.005	·	mg/L	5	5/15/2013
pH (25 °C)	SW9045C		Prep Date: 5/14/2013		3 Analyst: PBG	
pH	7.8			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/13/201	3 Analyst: RW
Percent Moisture	18.5	0.2	*	wt%	910	5/14/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-370-01(0-6)-050713D

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 10:50:00 AM

Lab ID:

13050282-017B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Prep Date: 5/19/2013 100

Analyst: JG

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 1200

9.9

mg/Kg-dry

5/19/2013

ND - Not Detected at the Reporting Limit Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time * - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range H - Holding time exceeded

38 of 112



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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-370-02(0-6)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 10:55:00 AM

Lab ID:

13050282-018A

Matrix: Soil

Analyses	Result	RL Q	ualifier Units	DF	Date Analyzed
Mercury	SW747	71A	Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.77	0.042	mg/Kg-dry	2	5/13/2013
Metals by ICP/MS	SW602	20 (SW3050)	B) Prep	Date: 5/13/2013	Analyst: JG
Antimony	ND	5	mg/Kg-dry	20	5/14/2013
Cadmium	6.2	1.3	mg/Kg-dry	20	5/14/2013
Chromium	68	13	mg/Kg-dry	100	5/13/2013
Copper	220	31	mg/Kg-dry	100	5/14/2013
Lead	1700	1.3	mg/Kg-dry	20	5/14/2013
Tin	38	13	* mg/Kg-dry	20	5/14/2013
Zinc	1600	63	mg/Kg-dry	100	5/14/2013
TCLP Metals by ICP/MS	SW131	11/6020 (SW	3005A) Prep	Analyst: JG	
Lead	0.4	0.005	mg/L	5	5/15/2013
pH (25 °C)	SW9045C		Prep Date: 5/14/201		Analyst: PBG
pH	7.7		pH Units	1	5/14/2013
Percent Moisture	D2974		Prep	Date: 5/13/2013	Analyst: RW
Percent Moisture	22.1	0.2	* wt%	1	5/14/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-370-02(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 10:55:00 AM

Lab ID:

13050282-018B

Matrix: Soil

Analyses

Result

L Qualifier Units

Prep Date: 5/19/2013

Date Analyzed

Analyst: JG

Metals by ICP/MS

Lead

SW6020 (SW3050B) 1000 9.9

····

mg/Kg-dry

100

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-370-02(6-12)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 11:00:00 AM

Lab ID:

13050282-019A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1 A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	1.7	0.25		mg/Kg-dry	10	5/13/2013
Metals by ICP/MS	SW602	0 (SW305	i0B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	ND	4.5		mg/Kg-dry	20	5/14/2013
Cadmium	8.7	1.1		mg/Kg-dry	20	5/14/2013
Chromium	41	11		mg/Kg-dry	100	5/13/2013
Copper	310	28		mg/Kg-dry	100	5/14/2013
Lead	1700	1.1		mg/Kg-dry	20	5/14/2013
Tin	49	11	*	mg/Kg-dry	20	5/14/2013
Zinc	2300	57		mg/Kg-dry	100	5/14/2013
TCLP Metals by ICP/MS	SW131 ⁻	1/6020 (SI	W3005A)	Prep	Date: 5/14/2013	Analyst: JG
Lead	0.36	0.005	·	mg/L	5	5/15/2013
pH (25 °C)	SW904	5C		Prep	Date: 5/14/2013	Analyst: PBG
рН	7.7			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/13/2013	Analyst: RW
Percent Moisture	24.6	0.2	53	wt%	21°	5/14/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-370-02(6-12)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Pilsen Soil Site, Pilsen, Chicago, IL

Project:

Collection Date 5/7/2013 11:00:00 AM

Lab ID:

13050282-019B

Matrix: Soil

Analyses

SW6020 (SW3050B)

Prep Date: 5/19/2013

Date Analyzed

Metals by ICP/MS Lead

2000

Result

9.7

mg/Kg-dry

Qualifier Units

Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-369-01(0-6)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 12:20:00 PM

Lab ID:

13050282-020A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.73	0.026		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW60	20 (SW30)50B)	Prep	Date: 5/13/2013	Analyst: JG
Antimony	ND	5.3		mg/Kg-dry	20	5/14/2013
Cadmium	7.5	1.3		mg/Kg-dry	20	5/14/2013
Chromium	43	13		mg/Kg-dry	100	5/13/2013
Copper	440	33		mg/Kg-dry	100	5/14/2013
Lead	1500	1.3		mg/Kg-dry	20	5/14/2013
Tin	52	13	*	mg/Kg-dry	20	5/14/2013
Zinc	1700	66		mg/Kg-dry	100	5/14/2013
TCLP Metals by ICP/MS	\$W13	11/6020 (SW3005A)	Prep	Date: 5/14/2013	Analyst: JG
Lead	0.26	0.005		mg/L	5	5/15/2013
оН (25°C)	SW904	SW9045C		Prep	Date: 5/14/2013	Analyst: PBG
pH	6.7			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/13/2013	Analyst: RW
Percent Moisture	27.3	0.2	*	wt%	4 }	5/14/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-369-01(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project: Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 12:20:00 PM

13050282-020B

Matrix: Soil

Analyses

Result

2500

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

9.9

mg/Kg-dry

Prep Date: 5/19/2013 100

Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-369-01(0-2)-050713

Lab Order:

13050282

Tag Number:

Collection Date 5/7/2013 12:15:00 PM

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Lab lD:	13050282-021A	Matrix: Soil						
Analyses		Result	RL	Qualifie	r Units	DF	Date Analyzed	
Mercury		SW74	71A		Prep	Date: 5/13/2013	B Analyst: LB	
Mercury		0.23	0.024		mg/Kg-dry	1	5/13/2013	
Metals by ICI	P/MS	SW60	20 (SW30	150B)	Prep	Date: 5/14/201 3	Analyst: JG	
Antimony		ND	4.8		mg/Kg-dry	20	5/14/2013	
Cadmium		ND	1.2		mg/Kg-dry	20	5/14/2013	
Chromium		ND	24		mg/Kg-dry	200	5/14/2013	
Copper		100	60		mg/Kg-dry	200	5/14/2013	
Lead		480	1.2		mg/Kg-dry	20	5/14/2013	
Tin		ND	12	*	mg/Kg-dry	20	5/14/2013	
Zinc	34	560	120		mg/Kg-dry	200	5/14/2013	
TCLP Metals	by ICP/MS	SW13	11/6020 (SW3005A)	Prep	Date: 5/14/2013	Analyst: JG	
Lead	•	0.05	0.005	•	mg/L	5	5/15/2013	
pH (25 °C)		SW904	45C		Prep	Date: 5/14/201 3	Analyst: PBG	
рH		6.3			pH Units	1	5/14/2013	
Percent Mois	ture	D2974			Prep	Date: 5/13/2013	Analyst: RW	
Percent Moist	ure	25.8	0.2	*	wt%	1	5/14/2013	

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-369-01(0-2)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 12:15:00 PM

Lab ID:

13050282-021B

Matrix: Soil

Analyses

Result

890

L Qualifier Units

ts Dr

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

9.8

mg/Kg-dry

Prep Date: **5/19/2013** a-dry 100 Analyst: **JG** 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-369-02(0-12)-050713

Lab Order:

13050282

Tag Number:

Project:

13030262

Collection Date 5/7/2013 12:25:00 PM

Lab ID:

13050282-022A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL Q	ualifier Units	DF	Date Analyzed
Mercury	SW74	71A	Prep	Date: 5/13/2013	Analyst: LB
Mercury	1	0.052	mg/Kg-dry	2	5/13/2013
Metals by ICP/MS	SW60	20 (SW3050E	B) Prep	Date: 5/14/2013	Analyst: JG
Antimony	ND	4.7	mg/Kg-dry	20	5/14/2013
Cadmium	6.9	1.2	mg/Kg-dry	20	5/14/2013
Chromium	40	24	mg/Kg-dry	200	5/14/2013
Copper	560	59	mg/Kg-dry	200	5/14/2013
Lead	1700	1.2	mg/Kg-dry	20	5/14/2013
Tín	87	12	* mg/Kg-dry	.20	5/14/2013
Zinc	3000	120	mg/Kg-dry	200	5/14/2013
TCLP Metals by ICP/MS	SW13	11/6020 (SW3	8005A) Prep	Date: 5/14/2013	Analyst: JG
Lead	0.41	0.005	mg/L	5	5/15/2013
pH (25 °C)	SW90	45C	Prep	Date: 5/14/2013	Analyst: PBG
pH	7.2		pH Units	1	5/14/2013
Percent Moisture	D2974	l .	Prep	Date: 5/13/2013	Analyst: RW
Percent Moisture	27.4	0.2	wt%	1	5/14/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-369-02(0-12)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 12:25:00 PM

Lab ID:

13050282-022B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

SW6020 (SW3050B)

9.9

Prep Date: 5/19/2013 100

Analyst: JG

Lead

2100

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA FLAP 100445: ORFI AP II 300001: AIHA 101160

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-369-03,04(0-6)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 12:30:00 PM

Lab ID:

13050282-023A

Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	SW7	471A		Prep	Date: 5/13/2013	3 Analyst: LB
Mercury	1.1	0.043	1	mg/Kg-dry	2	5/13/2013
Metals by ICP/MS	SW6	020 (SW30	50B)	Prep	Date: 5/14/2013	3 Analyst: JG
Antimony	ND	4.6		mg/Kg-dry	20	5/14/2013
Cadmium	5.8	1.1	ı	mg/Kg-dry	20	5/14/2013
Chromium	24	23	ı	mg/Kg-dry	200	5/14/2013
Copper	410	57	ı	mg/Kg-dry	200	5/14/2013
Lead	2300	1.1	ı	ng/Kg-dry	20	5/14/2013
Tin	49	11	* 1	ng/Kg-dry	20	5/14/2013
Zinc	2700	110	ı	ng/Kg-dry	200	5/14/2013
TCLP Metals by ICP/MS	SW1	311/6020 (S	W3005A)	Prep	Date: 5/14/2013	B Analyst: JG
Lead	1.2	0.005		mg/L	5	5/15/2013
pH (25 °C)	SW9	045C		Prep	Date: 5/14/2013	Analyst: PBG
рН	7.5			pH Units	1	5/14/2013
Percent Moisture	D297	4		Prep	Date: 5/13/2013	Analyst: RW
Percent Moisture	13.5	0.2		wt%	1	5/14/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-369-03,04(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 12:30:00 PM

Lab ID:

13050282-023B

Matrix: Soil

Analyses

Lead

Result :

RL Qualifier Units

DF

Date Analyzed

Metals by ICP/MS

SW6020 (SW3050B) 3500

9.9

mg/Kg-dry

Prep Date: 5/19/2013

Analyst: JG 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-371-01(0-6)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 2:15:00 PM Matrix: Soil

Lab ID:

13050282-024A

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	2	0.25		mg/Kg-dry	10	5/13/2013
Metals by ICP/MS	SW602	0 (SW305	i0B)	Prep	Date: 5/14/2013	Analyst: JG
Antimony	ND	5.1	-	mg/Kg-dry	20	5/14/2013
Cadmium	7.7	1.3		mg/Kg-dry	20	5/14/2013
Chromium	40	26		mg/Kg-dry	200	5/14/2013
Copper	450	64		mg/Kg-dry	200	5/14/2013
Lead	1800	1.3		mg/Kg-dry	20	5/14/2013
Tin	49	13	*	mg/Kg-dry	20	5/14/2013
Zinc	2800	130		mg/Kg-dry	200	5/14/2013
TCLP Metals by ICP/MS	SW131	1/6020 (SI	W3005A)	Prep	Date: 5/14/2013	Analyst: JG
Lead	0.24	0.005		mg/L	5	5/15/2013
оН (25 °C)	SW904	5C		Prep	Date: 5/14/2013	Analyst: PBG
pН	6.4			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/13/2013	Analyst: RW
Percent Moisture	27.1	0.2	•	wt%	·1	5/14/2013

	ND -	Not	Detected	at the	Reporting	Limit
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Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

^{* -} Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-371-01(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 2:15:00 PM

DF

Lab ID:

13050282-024B

Matrix: Soil

Analyses

Result

Qualifier Units

Date Analyzed

Metals by ICP/MS

SW6020 (SW3050B)

mg/Kg-dry

Prep Date: 5/19/2013 100

Analyst: JG

Lead

2200

9.6

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-371-02(0-6)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 2:20:00 PM

Lab ID:

13050282-025A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	71A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.31	0.024		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 5/14/2013	B Analyst: JG
Antimony	ND	5.3		mg/Kg-dry	20	5/14/2013
Cadmium	ND	1.3		mg/Kg-dry	20	5/14/2013
Chromium	14	2.7		mg/Kg-dry	20	5/14/2013
Copper	54	6.6		mg/Kg-dry	20	5/14/2013
Lead	320	13		mg/Kg-dry-	200	5/14/2013
Tìn	ND	13	*	mg/Kg-dry	20	5/14/2013
Zinc	360	13		mg/Kg-dry	20	5/14/2013
CLP Metals by ICP/MS	SW131	1/6020 (SW3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.024	0.005		mg/L	5	5/15/2013
оН (25 °C)	SW904	15C		Prep	Date: 5/14/2013	Analyst: PBG
pН	7.3			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/13/2013	Analyst: RW
Percent Moisture	28.5	0.2	*	wt%	al C	5/14/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LubCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-371-02(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 2:20:00 PM

Lab ID:

13050282-025B

Matrix: Soil

Analyses

Result

450

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

10

mg/Kg-dry

Prep Date: **5/19/2013** addry 100

Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-371-02(0-6)-050713D

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 2:25:00 PM

Lab ID:

13050282-026A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	71A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.18	0.025		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 5/14/2013	Analyst: JG
Antimony	ND	5.3		mg/Kg-dry	20	5/14/2013
Cadmium	ND	1.3		mg/Kg-dry	20	5/14/2013
Chromium	14	2.6		mg/Kg-dry	20	5/14/2013
Copper	51	6.6		mg/Kg-dry	20	5/14/2013
Lead	410	13		mg/Kg-dry	200	5/14/2013
Tin	ND	13	*	mg/Kg-dry	20	5/14/2013
Zinc	330	13		mg/Kg-dry	20	5/14/2013
TCLP Metals by ICP/MS	SW131	11/6020 (S	W3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.033	0.005	·	mg/L	5	5/15/2013
pH (25 °C)	SW904	15C		Prep	Date: 5/14/2013	Analyst: PBG
pH	. 7.4			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/13/2013	Analyst: RW
Percent Moisture	27.8	0.2	*	wt%	1	5/14/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-371-02(0-6)-050713D

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 2:25:00 PM

Lab ID:

13050282-026B

Matrix: Soil

Analyses

Result

RL Qualifier Units

DF

100

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 460

10

mg/Kg-dry

Prep Date: 5/19/2013 Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-349-01(0-6)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 3:20:00 PM

Lab ID:

13050282-027A

Matrix: Soil

Analyses	Result	RL Quali	fier Units	DF	Date Analyzed
Mercury	SW747	1A	Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.46	0.021	mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	0 (SW3050B)	Prep	Date: 5/14/2013	Analyst: JG
Antimony	ND	5	mg/Kg-dry	20	5/14/2013
Cadmium	5.4	1.3	mg/Kg-dry	20	5/14/2013
Chromium	29	2.5	mg/Kg-dry	20	5/14/2013
Copper	250	6.3	mg/Kg-dry	20	5/14/2013
Lead	890	13	mg/Kg-dry	200	5/14/2013
Tin	28	13 *	mg/Kg-dry	20	5/14/2013
Zinc	1800	13	mg/Kg-dry	20	5/14/2013
TCLP Metals by ICP/MS	SW1311	1/6020 (SW3005	(A) Prep	Date: 5/15/2013	Analyst: JG
Lead	0.13	0.005	mg/L	5	5/15/2013
рН (25 °C)	SW904	5C	Prep	Date: 5/14/2013	Analyst: PBG
На	7.0		pH Units	1	5/14/2013
Percent Moisture Percent Moisture	D2974 25.3	0.2 *	Prep wt%	Date: 5/13/2013 1	Analyst: RW 5/14/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-349-01(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 3:20:00 PM

Matrix: Soil

Lab ID: Analyses 13050282-027B

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Result

SW6020 (SW3050B)

Prep Date: 5/19/2013 100

Analyst: JG

Lead

1400

9.6

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-349-02(0-12)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 3:25:00 PM

Lab ID:

13050282-028A

Matrix: Soil

13030202 02021	Water Soil						
Analyses	Result	RL	Qualifier	r Units	DF	Date Analyzed	
Mercury	SW747	1A		Prep	Date: 5/13/2013	Analyst: LB	
Mercury	0.25	0.025		mg/Kg-dry	1	5/13/2013	
Metals by ICP/MS	SW602	0 (SW30	50B)	Prep	Date: 5/14/2013	Analyst: JG	
Antimony	ND	5.2		mg/Kg-dry	20	5/14/2013	
Cadmium	2	1.3		mg/Kg-dry	20	5/14/2013	
Chromium	21	2.6		mg/Kg-dry	20	5/14/2013	
Copper	100	6.5		mg/Kg-dry	20	5/14/2013	
Lead	630	1.3		mg/Kg-dry	20	5/14/2013	
Tin	17	13	*	mg/Kg-dry	20	5/14/2013	
Zinc	650	13	1	mg/Kg-dry	20	5/14/2013	
CLP Metals by ICP/MS	SW131	1/6020 (5	SW3005A)	Prep	Date: 5/15/2013	Analyst: JG	
Lead	0.18	0.005		mg/L	5	5/15/2013	
oH (25 °C)	SW904	5C		Prep	Date: 5/14/2013	Analyst: PBG	
pH	8.0			pH Units	1	5/14/2013	
Percent Moisture	D2974			Prep	Date: 5/13/2013	Analyst: RW	
Percent Moisture	23.7	0.2	*	wt%	1	5/14/2013	

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-349-02(0-12)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 3:25:00 PM

Lab ID:

13050282-028B

Matrix: Soil

Analyses

Result

 \mathbf{RL} Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 610

4.9

mg/Kg-dry

Prep Date: 5/19/2013

Analyst: JG 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

- Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-349-03(0-6)-050713

Tag Number:

Lab Order:

13050282

Collection Date 5/7/2013 4:30:00 PM

Project: Lab ID:

13050282-029A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	SW747	71A		Prep	Date: 5/13/201	3 Analyst: LB
Mercury	0.49	0.022	r	ng/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 5/14/201	3 Analyst: JG
Antimony	ND	4.2	r	ng/Kg-dry	20	5/14/2013
Cadmium	2.5	1.1	r	ng/Kg-dry	20	5/14/2013
Chromium	27	2.1	г	ng/Kg-dry	20	5/14/2013
Copper	99	5.3	r	ng/Kg-dry	20	5/14/2013
Lead	1400	11	п	ng/Kg-dry	200	5/14/2013
Tin	19	11	* n	ng/Kg-dry	20	5/14/2013
Zinc	930	11	n	ng/Kg-dry	20	5/14/2013
TCLP Metals by ICP/MS	SW131	1/6020 (5	SW3005A)	Prep	Date: 5/15/2013	3 Analyst: JG
Lead	0.55	0.005		mg/L	5	5/15/2013
pH (25 °C)	SW904	15C		Prep	Date: 5/14/2013	3 Analyst: PBG
рН	7.7			pH Units	1	5/14/2013
Percent Moisture	D2974			Prep	Date: 5/13/2013	3 Analyst: RW
Percent Moisture	12.6	0.2	*	wt%	1	5/14/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-349-03(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 4:30:00 PM

Lab ID:

13050282-029B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 1500 4.9

._, mai

mg/Kg-dry

Prep Date: 5/19/2013

Analyst: **JG** 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-351-01(0-6)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 3:45:00 PM

Lab ID: 13050282-030A

Matrix: Soil

Analyses	Result	RL Qu	alifier Units	DF	Date Analyzed
Mercury	· SW7471	Α	Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.28	0.023	mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW6020	(SW3050E) Prep	Date: 5/14/2013	Analyst: JG
Antimony	ND <i>リ</i> ブ	4.3	mg/Kg-dry	20	5/14/2013
Cadmium	ND	1.1	mg/Kg-dry	20	5/14/2013
Chromium	14	2.2	mg/Kg-dry	20	5/15/2013
Copper	58 J	54	mg/Kg-dry	200	5/14/2013
Lead	390	1.1	mg/Kg-dry	20	5/14/2013
Tin	ND	11	* mg/Kg-dry	20	5/14/2013
Zinc	490	110	mg/Kg-dry	200	5/14/2013
TCLP Metals by ICP/MS	SW1311	/6020 (SW3	005A) Prep	Date: 5/15/2013	Analyst: JG
Lead	0.75	0.005	mg/L	5	5/15/2013
pH (25 °C)	SW9045	C	Prep i	Date: 5/14/2013	Analyst: PBG
рН	7.8		pH Units	1	5/14/2013
Percent Moisture	D2974		Prep	Date: 5/13/2013	Analyst: RW
Percent Moisture	13.5	0.2	* wt%	1	5/14/2013

24 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-351-01(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 3:45:00 PM

Lab ID:

13050282-030B

Matrix: Soil

Analyses

Result

Qualifier Units

Date Analyzed

Metals by ICP/MS

SW6020 (SW3050B)

mg/Kg-dry

Prep Date: 5/19/2013

Analyst: JG

Lead

580

9.9

100

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-141-01(0-6)-050713

Lab Order:

13050282

Tag Number:

Project:

Collection Date 5/7/2013 5:40:00 PM

Lab ID:

13050282-031A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Lab ID. 13030282-031A	Wattix, Soil					
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.64	0.024	1	mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 5/14/2013	Analyst: JG
Antimony	ND	4.7	1	mg/Kg-dry	20	5/14/2013
Cadmium	3.3	1.2	1	mg/Kg-dry	20	5/14/2013
Chromium	33	2.4	ı	mg/Kg-dry	20	5/14/2013
Copper	200	5.9	1	mg/Kg-dry	20	5/14/2013
Lead	860	12	1	mg/Kg-dry	200	5/14/2013
Tin	39	12	* 1	mg/Kg-dry	20	5/14/2013
Zinc	700	12	ı	mg/Kg-dry	20	5/14/2013
TCLP Metals by ICP/MS	SW13	11/6020 (\$	SW3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.22	0.005	•	mg/L	5	5/15/2013
pH (25 °C)	SW90-	45C		Prep	Date: 5/14/2013	Analyst: PBG
pH	8.1			pH Units	1	5/14/2013
Percent Moisture	D2974	Ļ		Prep	Date: 5/13/2013	Analyst: RW
Percent Moisture	17.1	0.2	•	wt%	1	5/14/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

- Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, 1L 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-141-01(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 5:40:00 PM

Lab ID:

Analyses

13050282-031B

Matrix: Soil

Result

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

Prep Date: 5/19/2013 mg/Kg-dry

Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050282-032A

Client Sample ID: PA-141-02(0-6)-050713

Lab Order:

13050282

Tag Number:

Collection Date 5/7/2013 5:45:00 PM

Project: Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses		Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury		SW747	1 A		Prep	Date: 5/13/2013	Analyst: LB
Mercury		0.95	0.038		mg/Kg-dry	2	5/13/2013
Metals by ICP/MS		SW602	0 (SW30	50B)	Prep	Date: 5/14/2013	Analyst: JG
Antimony		ND	4.6	•	mg/Kg-dry	20	5/14/2013
Cadmium		3.5	1.1		mg/Kg-dry	20	5/14/2013
Chromium		40	2.3		mg/Kg-dry	20	5/14/2013
Copper		190	5.7		mg/Kg-dry	20	5/14/2013
Lead		1600	11		mg/Kg-dry	200	5/14/2013
Tin		26	11	*	mg/Kg-dry	20	5/14/2013
Zinc		970	11		mg/Kg-dry	20	5/14/2013
TCLP Metals by ICP/MS		SW131	1/6020 (5	SW3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead		0.25	0.005	•	mg/L	5	5/15/2013
pH (25 °C)		SW904	5C		Prep	Date: 5/14/2013	Analyst: PBG
рH	25	7.7			pH Units	1	5/14/2013
Percent Moisture		D2974			Prep	Date: 5/13/2013	Analyst: RW
Percent Moisture		16.6	0.2		wt%	(1)	5/14/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-141-02(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 5:45:00 PM

Lab ID:

13050282-032B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Date Analyzed

Metals by ICP/MS Lead

SW6020 (SW3050B) 1200

4.8

mg/Kg-dry

Prep Date: 5/19/2013

Analyst: JG 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-141-03(0-6)-050713

Lab Order:

13050282

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 5:50:00 PM

Lab ID:

13050282-033A

Matrix: Soil

Analyses	Result	RL Q	ualifier Units	DF	Date Analyzed
Mercury	SW747	71A	Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.56	0.021	mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	20 (SW3050	B) Prep	Date: 5/14/2013	Analyst: JG
Antimony	ND	4.6	mg/Kg-dry	20	5/14/2013
Cadmium	5.9	1.1	mg/Kg-dry	20	5/14/2013
Chromium	110	2.3	mg/Kg-dry	20	5/14/2013
Copper	220	5.7	mg/Kg-dry	20	5/14/2013
Lead	3300	11	mg/Kg-dry	200	5/14/2013
Tin	43	11	* mg/Kg-dry	20	5/14/2013
Zinc	1500	11	mg/Kg-dry	20	5/14/2013
TCLP Metals by ICP/MS	SW131	1/6020 (SW	3005A) Prep	Date: 5/15/2013	Analyst: JG
Lead	0.56	0.005	mg/L	5	5/15/2013
pH (25 °C)	SW904	15C	Prep	Date: 5/14/2013	Analyst: PBG
pH	8.0		pH Units	1	5/14/2013
Percent Moisture Percent Moisture	D2974 19.6	0.2	Prep wt%	Date: 5/13/2013	Analyst: RW 5/14/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-141-03(0-6)-050713

Lab Order:

13050282

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/7/2013 5:50:00 PM

Lab ID:

13050282-033B

Matrix: Soil

Analyses

Result

Qualifier Units

Date Analyzed

Metals by ICP/MS

SW6020 (SW3050B)

Prep Date: 5/19/2013

Analyst: JG

Lead

1400

4.9

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

PILSEN AREA SOIL SITE CHICAGO, ILLINOIS DATA VALIDATION REPORT

Date: June 3, 2013

Laboratory: STAT Analysis Corporation (STAT), Chicago, Illinois

Laboratory Project #: 13050358

Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund

Technical Assessment and Response Team (START)

Analytical TDD and Work Order #: S05-0001-1211-003/20405.016.001.2038.00

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for 28 soil samples collected for the Pilsen Area Soil Site that were analyzed for the following parameters and U.S. Environmental Protection Agency methods:

- Total Metals by SW-846 Methods 6020 and 7471A
- Fine Grained Lead by SW-846 Method 6020
- Bioavailablity Lead by EPA Method 9200 and SW-846 Method 6020
- Toxicity Characteristic Leaching Procedure (TCLP) Lead by SW-846 Methods 1311 and 6020
- pH by SW-846 Method 9045C
- Moisture Content by ASTM D2974

A level II data package was requested from STAT. The data validation was conducted in general accordance with the EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

TOTAL METALS AND FINE GRAINED LEAD BY EPA SW-846 METHODS 6020 AND 7471A AND BIOAVAILABLE LEAD BY EPA METHOD 9200 AND SW-846 METHOD 6020

1. <u>Samples</u>

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. Holding Times

The samples were analyzed within the required holding time limit of 28 days for mercury and 180 days from sample collection to analysis for all other metals.

Data Validation Report
Pilsen Area Soil Site
STAT Analysis Corporation
Laboratory Project #: 13050358

3. Blank Results

Method blanks were analyzed with the metals analyses. The blanks contained no metals contamination above the reporting limits. There were detections of some metals below the reporting limits in the blanks. However, in most instances the sample results were much greater or contained no detections of these metals. No qualifications were required.

The exception was for the In Vitro Extractable Lead result which was detected at a similar concentration to the method blank result. Therefore, in sample PA-466-01(0-6)-050913, the In Vitro Extractable Lead result was flagged "U" as not detected.

4. <u>Laboratory Control Sample (LCS) Results</u>

The LCS recoveries were within the quality control (QC) limits except for as follows.

In one LCS, antimony was detected high. Detected antimony results associated with this one LCS were flagged "J" as estimated.

5. Matrix Spike (MS) and MS Duplicate (MSD) Results

STAT analyzed several site-specific MS/MSDs. The percent recoveries and relative percent differences (RPD) were within QC limits except for as follows.

In many instances of QC limits not being met, the sample concentration was more than four times the spike amount. In these instances, no qualifications were required.

In the MS and MSD of samples PA-304-01(0-6)-050913 and PA-464-01(0-6)-050813, the antimony recovery was low. In these samples, the quantitation limits for non-detected antimony were flagged "UJ" and the detected results were flagged "J" as estimated.

6. Field Duplicate Results

There are three field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. There is no established QC limit for RPD for field duplicates; however, 50 RPD is generally used for evaluation. Most of the RPDs for detected metals were below 50 which is acceptable.

The exception was tin in field duplicate PA-84-02(0-6)-050813D had an RPD of 60 which is high indicating sample heterogeneity associated with tin this sample.

7. Overall Assessment

The metals data are acceptable for use as qualified based on the information received.

TCLP METALS BY EPA SW-846 METHODS 1311 AND 6020

1. Samples

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. <u>Holding Times</u>

The samples were analyzed within the required holding time limit of 180 days from sample collection

3. Blank Results

Method blanks were analyzed with the metals analyses. Some of the blanks contained some minor lead contamination. A couple of the TCLP lead results were flagged "U" as not detected because they were similar to the method blank concentration (less than 5 times the method blank result).

4. <u>LCS Results</u>

The LCS recoveries were within the QC limits.

5. MS and MSD Results

STAT analyzed two site-specific MS/MSD samples. The percent recoveries and RPDs were within QC limits except for as follows.

6. Field Duplicate Results

There are three field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. The RPDs were below 50 which is acceptable.

Laboratory Project #: 13050358

7. Overall Assessment

The TCLP lead data are acceptable for use based on the information received.

GENERAL CHEMISTRY PARAMETERS (pH by SW-846 Method 9045C and Moisture Content by ASTM D2974)

1. <u>Samples</u>

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. <u>Holding Times</u>

The holding time for pH is "as soon as possible" and the holding time for moisture is 28 days. The holding time for moisture was met. For pH, the samples were analyzed approximately 7-8 days from sample collection. No qualifications were applied.

3. Blank Results

Method blanks were analyzed with the moisture analyses and were all non-detect for moisture which is acceptable.

4. <u>LCS Results</u>

LCSs were analyzed with the moisture analyses. The LCS recoveries were within the QC limits.

5. Laboratory Duplicates

Laboratory duplicates were analyzed with the pH and moisture analyses. The RPDs were within QC limits.

6. Field Duplicate Results

There are three field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. The RPDs were below 50 which is acceptable.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050358

7. Overall Assessment

The pH and moisture data are acceptable for use as qualified based on the information received.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050358

ATTACHMENT A SAMPLE LIST

Date: May 23, 2013

STAT Analysis Corporation

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL Work Order Sample Summary

Lab Order: 13050358

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13050358-001A	PA-464-01(0-6)-050813		5/8/2013 11:30:00 AM	5/9/2013
13050358-001B	PA-464-01(0-6)-050813	Fine Grained	5/8/2013 11:30:00 AM	5/9/2013
13050358-002A	PA-464-02(0-6)-050813		5/8/2013 11:35:00 AM	5/9/2013
13050358-002B	PA-464-02(0-6)-050813	Fine Grained	5/8/2013 11:35:00 AM	5/9/2013
13050358-003A	PA-464-03(0-12)-050813		5/8/2013 11:40:00 AM	5/9/2013
13050358-003B	PA-464-03(0-12)-050813	Fine Grained	5/8/2013 11:40:00 AM	5/9/2013
13050358-004A	PA-464-04(0-12)-050813		5/8/2013 11:45:00 AM	5/9/2013
13050358-004B	PA-464-04(0-12)-050813	Fine Grained	5/8/2013 11:45:00 AM	5/9/2013
13050358-005A	PA-464-04(0-12)-050813D		5/8/2013 11:50:00 AM	5/9/2013
13050358-005B	PA-464-04(0-12)-050813D	Fine Grained	5/8/2013 11:50:00 AM	5/9/2013
13050358-006A	PA-464-05(0-6)-050813		5/8/2013 11:55:00 AM	5/9/2013
13050358-007A	PA-464-06(0-6)-050813		5/8/2013 12:00:00 PM	5/9/2013
13050358-008A	PA-84-01(0-6)-050813		5/8/2013 2:00:00 PM	5/9/2013
13050358-008B	PA-84-01(0-6)-050813	Fine Grained	5/8/2013 2:00:00 PM	5/9/2013
13050358-009A	PA-84-02(0-6)-050813		5/8/2013 2:05:00 PM	5/9/2013
13050358-009B	PA-84-02(0-6)-050813	Fine Grained	5/8/2013 2:05:00 PM	5/9/2013
13050358-010A	PA-84-02(0-6)-050813D		5/8/2013 2:10:00 PM	5/9/2013
13050358-010B	PA-84-02(0-6)-050813D	Fine Grained	5/8/2013 2:10:00 PM	5/9/2013
13050358-011A	PA-84-04(0-6)-050813		5/8/2013 2:15:00 PM	5/9/2013
13050358-012A	PA-84-05(0-6)-050813		5/8/2013 2:20:00 PM	5/9/2013
13050358-013A	PA-92-01(0-6)-050813		5/8/2013 3:30:00 PM	5/9/2013
13050358-013B	PA-92-01(0-6)-050813	Fine Grained	5/8/2013 3:30:00 PM	5/9/2013
13050358-014A	PA-92-02(0-6)-050813		5/8/2013 3:40:00 PM	5/9/2013
13050358-014B	PA-92-02(0-6)-050813	Fine Grained	5/8/2013 3:40:00 PM	5/9/2013
13050358-015A	PA-14-01(0-6)-050913		5/9/2013 8:50:00 AM	5/9/2013
13050358-015B	PA-14-01(0-6)-050913	Fine Grained	5/9/2013 8:50:00 AM	5/9/2013
13050358-016A	PA-14-02(0-6)-050913		5/9/2013 8:55:00 AM	5/9/2013
13050358-016B	PA-14-02(0-6)-050913	Fine Grained	5/9/2013 8:55:00 AM	5/9/2013
13050358-017A	PA-14-03(0-6)-050913		5/9/2013 9:00:00 AM	5/9/2013
13050358-017B	PA-14-03(0-6)-050913	Fine Grained	5/9/2013 9:00:00 AM	5/9/2013
13050358-018A	PA-304-01(0-6)-050913		5/9/2013 10:00:00 AM	5/9/2013
13050358-018B	PA-304-01(0-6)-050913	Fine Grained	5/9/2013 10:00:00 AM	5/9/2013
	PA-465-01(0-6)-050913		5/9/2013 11:30:00 AM	5/9/2013
	PA-465-01(0-6)-050913	Fine Grained	5/9/2013 11:30:00 AM	5/9/2013
13050358-020A	PA-465-01(0-6)-050913D		5/9/2013 11:35:00 AM	5/9/2013
13050358-020B	PA-465-01(0-6)-050913D	Fine Grained	5/9/2013 11:35:00 AM	5/9/2013
13050358-021A	PA-465-02.03.04(0-12)- 050913		5/9/2013 11:40:00 AM	5/9/2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL

Lab Order: 13050358

Work Order Sample Summary

Lab Sample ID Client Sample ID	Tag Number	Collection Date	Date Received
13050358-021B PA-465-02.03.04(0-12)- 050913	Fine Grained	5/9/2013 11:40:00 AM	5/9/2013
13050358-022A PA-466-01(0-6)-050913		5/9/2013 2:15:00 PM	5/9/2013
13050358-022B PA-466-01(0-6)-050913	Fine Grained	5/9/2013 2:15:00 PM	5/9/2013
13050358-022C PA-466-01(0-6)-050913	Course Grained	5/9/2013 2:15:00 PM	5/9/2013
13050358-023A PA-466-02(0-6)-050913		5/9/2013 2:20:00 PM	5/9/2013
13050358-023B PA-466-02(0-6)-050913	Fine Grained	5/9/2013 2:20:00 PM	5/9/2013
13050358-024A PA-466-03(0-6)-050913		5/9/2013 2:25:00 PM	5/9/2013
13050358-025A PA-466-04(0-6)-050913		5/9/2013 2:30:00 PM	5/9/2013
13050358-026A PA-466-05(0-6)-050913		5/8/2013 2:35:00 PM	5/9/2013
13050358-026B PA-466-05(0-6)-050913	Fine Grained	5/8/2013 2:35:00 PM	5/9/2013
13050358-027A PA-467-01(0-6)-050913		5/8/2013 3:00:00 PM	5/9/2013
13050358-027B PA-467-01(0-6)-050913	Fine Grained	5/8/2013 3:00:00 PM	5/9/2013
13050358-028A PA-468-01(0-6)-050913		5/8/2013 3:30:00 PM	5/9/2013
13050358-028B PA-468-01(0-6)-050913	Fine Grained	5/8/2013 3:30:00 PM	5/9/2013

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050358

ATTACHMENT B

STAT ANALYSIS CORPORATION RESULTS SUMMARY WITH QUALIFIERS



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-464-01(0-6)-050813

Lab Order:

13050358

Tag Number:

Project:

13030336

Collection Date 5/8/2013 11:30:00 AM

Lab ID:

13050358-001A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL (Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	'1A		Prep	Date: 5/15/2013	Analyst: LB
Mercury	0.45	0.022		mg/Kg-dry	1	5/15/2013
Metals by ICP/MS	SW602	20 (SW305	0B)	Prep	Date: 5/15/2013	'Analyst: JG
Antimony,	8.6	4.4	•	mg/Kg-dry	20	5/16/2013
Cadmium	3.2	1.1		mg/Kg-dry	20	5/16/2013
Chromium	21	2.2		mg/Kg-dry	20	5/16/2013
Copper	170	5.5		mg/Kg-dry	20	5/16/2013
Lead	910	1.1		mg/Kg-dry	20	5/16/2013
Tin	36	11	*	mg/Kg-dry	20	5/16/2013
Zinc	750	11		mg/Kg-dry	20	5/16/2013
TCLP Metals by ICP/MS	SW131	1/6020 (SV	V3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.058	0.005	•	mg/L	5	5/15/2013
oH (25 °C)	SW904	5C		Prep	Date: 5/16/2013	Analyst: RW
pН	7.1			pH Units	1	5/16/2013
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW
Percent Molsture	13.0	0.2	*	wt%	1	5/16/2013



ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-464-01(0-6)-050813

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 11:30:00 AM

DF

Lab ID:

13050358-001B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 1300 5

mg/Kg-dry

Prep Date: 5/19/2013

Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-464-02(0-6)-050813

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 11:35:00 AM

Lab ID:

13050358-002A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471A		Pre		Date: 5/15/2013	Analyst: LB
Mercury	0.18	0.02		mg/Kg-dry	1	5/15/2013
Metals by ICP/MS	SW6020 (SW3050B)			Prep	Analyst: JG	
Antimony	ND	4.3	•	mg/Kg-dry	20	5/16/2013
Cadmium	1.9	1.1		mg/Kg-dry	20	5/16/2013
Chromium	22	2.1		mg/Kg-dry	20	5/16/2013
Copper	74	5.3		mg/Kg-dry	20	5/16/2013
Lead	240	1.1		mg/Kg-dry	20	5/16/2013
Tîn	15	11	*	mg/Kg-dry	20	5/16/2013
Zinc	260	11		mg/Kg-dry	20	5/16/2013
CLP Metals by ICP/MS	SW1311/6020 (SW3005A)		Prep Date: 5/15/2013		Analyst: JG	
Lead	0.016 <i>U</i>	0.0075		mg/L	5	5/15/2013
оН (25 °C)	SW9045C		Prep	Analyst: RW		
Н	7.4			pH Units	1	5/16/2013
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	9.5	0.2		wt%	1	5/16/2013

2/3/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-464-02(0-6)-050813

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 11:35:00 AM

DF

Lab ID:

Matrix: Soil

Analyses

13050358-002B

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 350

Result

5

RL Qualifier Units

mg/Kg-dry

Prep Date: 5/19/2013

Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Lab ID:

Weston Solutions

13050358-003A

Client Sample ID: PA-464-03(0-12)-050813

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 11:40:00 AM

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed	
Mercury	SW7471A			Prep	Date: 5/15/201	3 Analyst: LB	
Mercury	0.45	0.021		mg/Kg-dry	1	5/15/2013	
Metals by ICP/MS	SW602	0 (SW3)50B)	Prep	Date: 5/15/2013	3 Analyst: JG	
Antimony	4.8	4.7		mg/Kg-dry	20	5/16/2013	
Cadmium	9.4	1.2		mg/Kg-dry	20	5/16/2013	
Chromium	72	2.4		mg/Kg-dry	20	5/16/2013	
Copper	150	5.9		mg/Kg-dry	20	5/16/2013	
Lead	670	1.2		mg/Kg-dry	20	5/16/2013	
Tin	29	12		mg/Kg-dry	20	5/16/2013	
Zinc	620	12		mg/Kg-dry	20	5/16/2013	
CLP Metals by ICP/MS	SW1311/6020 (SW3005A)		SW3005A)	Prep	Analyst: JG		
Lead	0.16	0.005		mg/L	5	5/15/2013	
oH (25 °C)	SW904	SW9045C		Prep	Analyst: RW		
pH	7.7			pH Units	1	5/16/2013	
Percent Moisture	D2974			Prep	Date: 5/16/201 3	Analyst: RW	
Percent Moisture	15.2	0.2	±	wt%	1	5/16/2013	

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-464-03(0-12)-050813

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 11:40:00 AM

DF

Lab ID:

Lead

13050358-003B

Matrix: Soil

Analyses

Metals by ICP/MS

Result

990

SW6020 (SW3050B)

RL Qualifier Units

Prep Date: 5/19/2013

Analyst: JG

Date Analyzed

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-464-04(0-12)-050813

Lab Order:

13050358

Tag Number:

Project:

13030338

Collection Date 5/8/2013 11:45:00 AM

Lab ID:

13050358-004A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

	THE THE DOIS						
Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed	
Mercury	SW747	'1A		Prep	Date: 5/15/2013	Analyst: LB	
Mercury	2	0.12		mg/Kg-dry	5	5/15/2013	
Metals by ICP/MS	SW602	0 (SW30)50B)	Prep	Date: 5/15/2013	Analyst: JG	
Antimony	ND	4.8		mg/Kg-dry	20	5/16/2013	
Cadmium	38	1.2		mg/Kg-dry	20	5/16/2013	
Chromium	340	2.4		mg/Kg-dry	20	5/16/2013	
Copper	260	6.1		mg/Kg-dry	20	5/16/2013	
Lead	450	1.2		mg/Kg-dry	20	5/16/2013	
Tin	38	12	*	mg/Kg-dry	20	5/16/2013 `	
Zinc	940	12		mg/Kg-dry	20	5/16/2013	
TCLP Metals by ICP/MS	SW1311/6020 (SW3005A)		Prep Date: 5/15/2013		Analyst: JG		
Lead	0.036	0.005		mg/L	5	5/15/2013	
oH (25 °C)	SW904	SW9045C		Prep	Analyst: RW		
рН	7.8			pH Units	1	5/16/2013	
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW	
Percent Moisture	21.1	0.2	•	wt%	1	5/16/2013	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-464-04(0-12)-050813

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 11:45:00 AM

Lab ID:

13050358-004B

Matrix: Soil

Date Analyzed Qualifier Units DF RL Result **Analyses**

Metals by ICP/MS

SW6020 (SW3050B)

Prep Date: 5/20/2013 50

Analyst: JG

Lead

500 2.5

mg/Kg-dry

5/20/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-464-04(0-12)-050813D

Lab Order:

13050358

Tag Number:

Project: Lab ID: Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 11:50:00 AM

13050358-005A Matrix: Soil

Analyses	Result	RL	Qualifie	er Units	DF	Date Analyzed
Mercury	SW7471A			Prep	Date: 5/15/2013	Analyst: LB
Mercury	1.5	0.1		mg/Kg-dry	5	5/15/2013
Metals by ICP/MS	SW6020	(SW30	50B)	Prep	Date: 5/15/2013	Analyst: JG
Antimony	ND	4.9	•	mg/Kg-dry	20	5/16/2013
Cadmium	35	1.2		mg/Kg-dry	20	5/16/2013
Chromium	300	2.4		mg/Kg-dry	20	5/16/2013
Copper	240	6.1		mg/Kg-dry	20	5/16/2013
Lead	390	1.2		mg/Kg-dry	20	5/16/2013
,Tin	33	12	*	mg/Kg-dry	20	5/16/2013
Zinc	870	12		mg/Kg-dry	20	5/16/2013
TCLP Metals by ICP/MS	SW1311/6	6020 (S	W3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead		0.005	•	mg/L	5	5/15/2013
pH (25 °C)	SW9045C	;		Prep	Date: 5/16/2013	Analyst: RW
рН	7.7			pH Units	1	5/16/2013
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	17.7	0.2	8	wt%	1	5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-464-04(0-12)-050813D

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 11:50:00 AM

Lab ID:

13050358-005B

Matrix: Soil

Analyses

Result

SW6020 (SW3050B)

RL Qualifier Units

Prep Date: 5/19/2013 50

DF

Date Analyzed Analyst: JG

Metals by ICP/MS Lead

510

5

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-464-05(0-6)-050813

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 11:55:00 AM

Lab ID:

13050358-006A

Matrix: Soil

240 10.				MIALLI	A. BUII	
Analyses	Result	RL	Qualifi	er Units	DF	Date Analyzed
Metals by ICP/MS Lead	SW602 1100	0 (SW30	50B)	Prep mg/Kg-dry	Date: 5/15/201 20	3 Analyst: JG 5/16/2013
Percent Moisture Percent Moisture	D2974 14.6	0.2		Prep wt%	Date: 5/16/201	3 Analyst: RW 5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-464-06(0-6)-050813

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 12:00:00 PM

Lab ID:

13050358-007A

Matrix: Soil

Lati ID.	<u> </u>				
Analyses	Result	RL Qua	alifier Units	DF	Date Analyzed
Metals by ICP/MS Lead	SW6020 510	(SW3050B)	Prep mg/Kg-dry	Date: 5/15/201 : 20	3 Analyst: JG 5/16/2013
Percent Moisture Percent Moisture	D2974 10.9	0.2	Prep * wt%	Date: 5/16/201 3	3 Analyst: RW 5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-84-01(0-6)-050813

Lab Order:

13050358

Tag Number:

Project:

Collection Date 5/8/2013 2:00:00 PM

Lab ID:

13050358-008A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/15/2013	Analyst: LB
Mercury	0.48	0.019		mg/Kg-dry	1	5/15/2013
Metals by ICP/MS	SW602	0 (SW30	50B)	Prep	Date: 5/15/2013	Analyst: JG
Antimony	ND	4.5	•	mg/Kg-dry	20	5/16/2013
Cadmium	2	1.1		mg/Kg-dry	20	5/16/2013
Chromium	19	2.2		mg/Kg-dry	20	5/16/2013
Copper	56	5.7		mg/Kg-dry	20	5/16/2013
Lead	600	1.1		mg/Kg-dry	20	5/16/2013
Tln	30	11	*	mg/Kg-dry	20	5/16/2013
Zinc	470	11		mg/Kg-dry	20	5/16/2013
CLP Metals by ICP/MS	SW1311	1/6020 (5	SW3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.087	0.005	•	mg/L	5	5/15/2013
oH (25 °C)	SW9045	5C		Prep	Daté: 5/16/2013	Analyst: RW
pН	8.0			pH Units	1	5/16/2013
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	14.0	0.2	*	wt%	1	5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-84-01(0-6)-050813

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 2:00:00 PM

Lab ID:

13050358-008B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Prep Date: 5/19/2013

Date Analyzed

Metals by ICP/MS Lead

680

SW6020 (SW3050B)

mg/Kg-dry

50

DF

Analyst: **JG** 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-84-02(0-6)-050813

Lab Order:

13050358

Tag Number:

Project:

Collection Date 5/8/2013 2:05:00 PM

Lab ID:

13050358-009A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF		Date Analyzed
Mercury	SW74	71A		Prep	Date: 5	i/15/2013	Analyst: LB
Mercury	0.35	0.019	r	ng/Kg-dry	1		5/15/2013
Metals by ICP/MS	SW60	20 (SW30:	50B)	Prep	Date: 5	i/ 15/2 013	Analyst: JG
Antimony	ND	4.5	r	ng/Kg-dry	20		5/16/2013
Cadmium	4.5	1.1	r	ng/Kg-dry	20		5/16/2013
Chromium	31	2.2	п	ng/Kg-dry	20		5/16/2013
Copper	110	5.5	n	ng/Kg-dry	20		5/16/2013
Lead	1100	1.1	п	ng/Kg-dry	20	0.0	5/16/2013
Tin	26	11	* n	ng/Kg-dry	20		5/16/2013
Zinc	880	11	n	ng/Kg-dry	20		5/16/2013
CLP Metals by ICP/MS	SW13	11/6020 (S	W3005A)	Prep	Date: 5	/15/2013	Analyst: JG
Lead	0.15	0.005	•	mg/L	5		5/15/2013
oH (25 °C)	SW90	45C		Prep	Date: 5	/ 16/2 013	Analyst: RW
PH	7.7		1	pH Units	1		5/16/2013
Percent Moisture	D2974	ļ		Prep	Date: 5	/16/2013	Analyst: RW
Percent Moisture	12.5	0.2	*	wt%	31		5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-84-02(0-6)-050813

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 2:05:00 PM

DF

Lab ID:

13050358-009B

Matrix: Soil

Analyses

Result

Qualifier Units RL

1100

Prep Date: 5/19/2013

Analyst: JG

Date Analyzed

Metals by ICP/MS Lead

SW6020 (SW3050B)

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-84-02(0-6)-050813D

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 2:10:00 PM

Lab ID: 13050358-010A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 5/15/2013	Analyst: LB
Mercury	0.27	0.02		mg/Kg-dry	1	5/15/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 5/15/2013	Analyst: JG
Antimony	ND	4.5	_	mg/Kg-dry	20	5/16/2013
Cadmium	3.6	1.1		mg/Kg-dry	20	5/16/2013
Chromium	27	2.3		mg/Kg-dry	20	5/16/2013
Copper	82	5.6		mg/Kg-dry	20	5/16/2013
Lead	740	1.1		mg/Kg-dry	20	5/16/2013
Tin	14	11	*	mg/Kg-dry	20	5/16/2013
Zinc	700	11		mg/Kg-dry	20	5/16/2013
CLP Metals by ICP/MS	SW13	11/6020 (\$	SW3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.092	0.005		mg/L	5	5/15/2013
ьН (25 °C)	SW90	45C		Prep	Date: 5/16/2013	Analyst: RW
На	7.9			pH Units	1	5/16/2013
Percent Moisture	D2974	,		Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	11.2	0.2	*	wt%	1	5/16/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-84-02(0-6)-050813D

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 2:10:00 PM

DF

Lab ID:

13050358-010B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Prep Date: 5/19/2013

Date Analyzed Analyst: JG

Metals by ICP/MS Lead

SW6020 (SW3050B) 920

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-84-04(0-6)-050813

Lab Order:

13050358

Project:

12020229

Tag Number:

Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 2:15:00 PM

13050358-011A

Matrix: Soil

Analyses	Result	RL Qua	lifie	r Units	DF	Date Analyzed
Metals by ICP/MS Lead	SW6020 (S 530	W3050B) 1.1		Prep mg/Kg-dry	Date: 5/15/201 ;	3 Analyst: JG 5/16/2013
Percent Moisture Percent Moisture	D2974 13.1	0.2	•	Prep wt%	Date: 5/16/2013	3 Analyst: RW 5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

'S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-84-05(0-6)-050813

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 2:20:00 PM

Lab ID:

13050358-012A

Matrix: Soil

Analyses	Result RL Q	ualifier Units DF	Date Analyzed
Metals by ICP/MS	SW6020 (SW3050 360 1.1	B) Prep Date: 5/15/2013 mg/Kg-dry 20	Analyst: JG 5/16/2013
Percent Moisture Percent Moisture	D2974 14.9 0.2	Prep Date: 5/16/2013 * wt% 1	Analyst: RW 5/16/2013

140-140

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-92-01(0-6)-050813

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 3:30:00 PM

Lab ID:

13050358-013A

Matrix: Soil

Analyses	Result	RL	Qualific	er Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 5/15/2013	Analyst: LB
Mercury	0.76	0.038		mg/Kg-dry	2	5/15/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 5/15/2013	Analyst: JG
Antimony	ND	4.5		mg/Kg-dry	20	5/16/2013
Cadmium	4.9	1.1		mg/Kg-dry	20	5/16/2013
Chromium	25	2.3		mg/Kg-dry	20	5/16/2013
Copper	170	5.6		mg/Kg-dry	20	5/16/2013
Lead	880	1.1		mg/Kg-dry	20	5/16/2013
Tin	140	11	*	mg/Kg-dry	20	5/16/2013
Zinc	1300	11		mg/Kg-dry	20	5/16/2013
CLP Metals by ICP/MS	SW13	11/6020 (5	SW3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.12	0.005		mg/L	5	5/15/2013
oH (25 °C)	SW90	45C		Prep	Date: 5/16/2013	Analyst: RW
PH	7.4			pH Units	1	5/16/2013
Percent Moisture	D2974	,		Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	13.1	0.2	*	wt%	1	5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-92-01(0-6)-050813

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Collection Date 5/8/2013 3:30:00 PM

DF

Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL 13050358-013B

Matrix: Soil

Analyses

Result

 \mathbf{RL} Qualifier Units

Prep Date: 5/19/2013

Date Analyzed

Metals by ICP/MS

SW6020 (SW3050B) 4.9 1000

mg/Kg-dry

Analyst: JG 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-92-02(0-6)-050813

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 3:40:00 PM

Lab ID: 13050358-014A

Matrix: Soil

Analyses	Result	RL	Qualifier Units	DF	Date Analyzed
Mercury	SW74	SW7471A		ep Date: 5/15/201 3	Analyst: LB
Mercury	0.25	0.025	mg/Kg-dr	y 1	5/15/2013
Metals by ICP/MS	SW60	20 (SW305	6 0B) Pre	ep Date: 5/15/201 3	Analyst: JG
Antimony	ND	4.8	mg/Kg-dr	•	5/16/2013
Cadmium	2	1.2	mg/Kg-dn	y 20	5/16/2013
Chromium	15	2.4	mg/Kg-dr	y 20	5/16/2013
Copper	83	6.1	mg/Kg-dry	/ 20	5/16/2013
Lead	400	1.2	mg/Kg-dn	/ 20	5/16/2013
Tin	35	12	* mg/Kg-dn	/ 20	5/16/2013
Zinc	550	12	mg/Kg-dry	/ 20	5/16/2013
TCLP Metals by ICP/MS	SW13:	11/6020 (SI	W3005A) Pre	p Date: 5/15/2013	Analyst: JG
Lead	0.065	0.005	mg/L	5	5/15/2013
oH (25 °C)	SW90-	45C	Pre	p Date: 5/16/201 3	Analyst: RW
Hq	7.7		pH Units	. 1	5/16/2013
Percent Moisture	D2974	,	Pre	p Date: 5/16/2013	Analyst: RW
Percent Moisture	20.7	0.2	* wt%	1	5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting . Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-92-02(0-6)-050813

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 3:40:00 PM

Lab ID:

13050358-014B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Prep Date: 5/19/2013

DF

Date Analyzed Analyst: JG

Metals by ICP/MS Lead

SW6020 (SW3050B) 250

4.8

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

- Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-14-01(0-6)-050913

Lab Order:

13050358

Tag Number:

Project:

Collection Date 5/9/2013 8:50:00 AM

Lab ID:

13050358-015A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 5/15/2013	Analyst: LB
Mercury	0.093	0.023		mg/Kg-dry	1	5/15/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 5/15/2013	Analyst: JG
Antimony	ND	4.7		mg/Kg-dry	20	5/16/2013
Cadmium	ND	1.2		mg/Kg-dry	20	5/16/2013
Chromium	18	2.3		mg/Kg-dry	20	5/16/2013
Copper	55	5.9		mg/Kg-dry	20	5/16/2013
Lead	140	1.2		mg/Kg-dry	20	5/16/2013
Tln	13	12		mg/Kg-dry	20	5/16/2013
Zinc	220	12		mg/Kg-dry	20	5/16/2013
CLP Metals by ICP/MS	SW13	11/6020 (S	W3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.026	0.005	-	mg/L	5	5/15/2013
oH (25 °C)	SW90	45C		Prep	Date: 5/16/2013	Analyst: RW
pH	7.3			pH Units	1	5/16/2013
Percent Moisture	D2974	,		Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	17.2	0.2	0.00	wt%	14	5/16/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-14-01(0-6)-050913.

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 8:50:00 AM

Lab ID:

13050358-015B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Prep Date: 5/19/2013

Analyst: JG

Date Analyzed

Metals by ICP/MS Lead

200

SW6020 (SW3050B) 5

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

- Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-14-02(0-6)-050913

Lab Order:

13050358

Tag Number:

Project:

Collection Date 5/9/2013 8:55:00 AM

Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL 13050358-016A

Matrix: Soil

			_	17246112	k. Don	
Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/15/2013	Analyst: LB
Mercury	0.2	0.03		mg/Kg-dry	1	5/15/2013
Metals by ICP/MS	SW602	0 (SW3)	050B)	Prep	Date: 5/15/2013	Analyst: JG
Antimony	ND	5.9		mg/Kg-dry	20	5/16/2013
Cadmium	ND	1.5		mg/Kg-dry	20	5/16/2013
Chromium	24	3		mg/Kg-dry	20	5/16/2013
Copper	96	7.4		mg/Kg-dry	20	5/16/2013
Lead	480	1.5		mg/Kg-dry	20	5/16/2013
Tin	ND	15	•	mg/Kg-dry	20	5/16/2013
Zinc	520	15		mg/Kg-dry	20	5/16/2013
TCLP Metals by ICP/MS	SW131	1/6020 (SW3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.074	0.005		mg/L	5	5/15/2013
pH (25 °C)	SW904	5C		Prep	Date: 5/16/2013	Analyst: RW
pН	7.4			pH Units	1	5/16/2013
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	33.8	0.2	*	wt%	31	5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-14-02(0-6)-050913

Lab Order:

13050358

Tag Number: Fine Grained

Project:

and the state of t

Collection Date 5/9/2013 8:55:00 AM

Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses

13050358-016B

RL Qualifier Units DF

Date Analyzed

Metals by ICP/MS

Result

SW6020 (SW3050B)

Prep Date: 5/19/2013

50

Analyst: JG

Lead

560

6

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting . Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-14-03(0-6)-050913

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 9:00:00 AM

Lab ID:

13050358-017A

Matrix: Soil

								
Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed		
Mercury	SW7471	I A		Prep	Date: 5/15/201 3	Analyst: LB		
Mercury	0.2	0.022		mg/Kg-dry	1	5/15/2013		
Metals by ICP/MS	SW6020	(SW30	50B)	Prep	Date: 5/15/2013	Analyst: JG		
Antimony	ND	5		mg/Kg-dry	20	5/16/2013		
Cadmium	1.7	1.2		mg/Kg-dry	20	5/16/2013		
Chromium	15	2.4		mg/Kg-dry	20	5/16/2013		
Copper	110	6.2		mg/Kg-dry	20	5/16/2013		
Lead	710	1.2		mg/Kg-dry	20	5/16/2013		
Tin	ND	12	*	mg/Kg-dry	20	5/16/2013		
Zinc	530	12		mg/Kg-dry	20	5/16/2013		
CLP Metals by ICP/MS	SW1311	/6020 (5	SW3005A)	Prep	Date: 5/15/2013	Analyst: JG		
Lead	0.37	0.005	ŕ	mg/L	5	5/15/2013		
ьН (25 °C)	SW9045	C		Prep	Date: 5/16/2013	Analyst: RW		
PΗ	7.4			pH Units	1	5/16/2013		
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW		
Percent Moisture	22.0	0.2	*	wt%	1	5/16/2013		

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-14-03(0-6)-050913

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 9:00:00 AM

Lab ID:

13050358-017B

Matrix: Soil

Analyses

Result

Qualifier Units \mathbf{RL}

Prep Date: 5/19/2013

DF

Date Analyzed Analyst: JG

Metals by ICP/MS

Lead

SW6020 (SW3050B) 980

4.9

mg/Kg-dry

50

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

" - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-304-01(0-6)-050913

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 10:00:00 AM

Lab ID:

13050358-018A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed	
Mercury	SW7471	IA		Prep	Date: 5/15/2013	3 Analyst: LB	
Mercury	0.067	0.018		mg/Kg-dry	1	5/15/2013	
Metals by ICP/MS	SW692) (SW30)50B)	Prep	Date: 5/15/2013	3 Analyst: JG	
Antimony	ND (A)	4.2		mg/Kg-dry	20	5/16/2013	
Cadmium	ND	1		mg/Kg-dry	20	5/16/2013	
Chromium	13	2.1		mg/Kg-dry	20	5/16/2013	
Copper	27	5.2		mg/Kg-dry	20	5/16/2013	
Lead	58	1		mg/Kg-dry	20	5/16/2013	
Tin	ND	10	*	mg/Kg-dry	20	5/16/2013	
Zinc	130	10		mg/Kg-dry	20	5/16/2013	
CLP Metals by ICP/MS	SW1311	/6020 (5	SW3005A)	Prep	Date: 5/15/2013	Analyst: JG	
Lead	0.0092 🔰	0.005	•	mg/L	5	5/15/2013	
oH (25 °C)	SW9045	iC		Prep	Date: 5/16/2013	Analyst: RW	
PΗ	7.6			pH Units	1	5/16/2013	
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW	
Percent Molsture	10.4	0.2		wt%	1	5/16/2013	



B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

^{* -} Non-accredited parameter

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-304-01(0-6)-050913

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 10:00:00 AM

Lab ID:
Analyses

13050358-018B

Matrix: Soil

Date Analyzed

Metals by ICP/MS

Result

SW6020 (SW3050B) Prep

Qualifier Units

Prep Date: 5/19/2013

DF

Analyst: JG

Lead

77

4.9

RL

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-465-01(0-6)-050913

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 11:30:00 AM

Lab ID:

13050358-019A

Matrix: Soil

	Trade III Boil						
Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed	
Mercury	SW74	71A		Prep	Date: 5/15/2013	Analyst: LB	
Mercury	0.38	0.021		mg/Kg-dry	1	5/15/2013	
Metals by ICP/MS	SW60	20 (SW30	050B)	Prep	Date: 5/15/2013	Analyst: JG	
Antimony	ND	4.7		mg/Kg-dry	20	5/16/2013	
Cadmium	1.7	1.2		mg/Kg-dry	20	5/16/2013	
Chromium	46	2.3		mg/Kg-dry	20	5/16/2013	
Copper	84	5.9		mg/Kg-dry	20	5/16/2013	
Lead	370	1.2		mg/Kg-dry	20	5/16/2013	
Tin	17	12		mg/Kg-dry	20	5/16/2013	
Zinc	300	12		mg/Kg-dry	20	5/16/2013	
CLP Metals by ICP/MS	SW13 ⁻	11/6020 (SW3005A)	Prep	Date: 5/15/2013	Analyst: JG	
Lead	0.05	0.005	-	mg/L	5	5/16/2013	
oH (25 °C)	SW904	15C		Prep	Date: 5/16/2013	Analyst: RW	
pH	7.8			pH Units	1	5/16/2013	
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW	
Percent Moisture	14.6	0.2	*	wt%	1	5/16/2013	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time.

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-465-01(0-6)-050913

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 11:30:00 AM

DF

Lab ID:

Analyses

13050358-019B

Matrix: Soil

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

5

Result

mg/Kg-dry

RL Qualifier Units

Prep Date: 5/19/2013

Analyst: JG

50 5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

% - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-465-01(0-6)-050913D

Lab Order:

13050358

Tag Number:

Project:

15050550

Collection Date 5/9/2013 11:35:00 AM

Lab ID:

13050358-020A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/15/2013	Analyst: LB
Mercury	0.45	0.021		mg/Kg-dry	1	5/15/2013
Metals by ICP/MS	SW602) (SW3)	050B)	Prep	Date: 5/15/2013	Analyst: JG
Antimony	ND	4.4	•	mg/Kg-dry	20	5/16/2013
Cadmium	1.5	1,1		mg/Kg-dry	20	5/16/2013
Chromium	56	2.2		mg/Kg-dry	20	5/16/2013
Copper	87	5.5		mg/Kg-dry	20	5/16/2013
Lead	340	1.1		mg/Kg-dry	20	5/16/2013
Tin	14	11	*	mg/Kg-dry	20	5/16/2013
Zinc	310	11		mg/Kg-dry	20	5/16/2013
TCLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.067	0.005	•	mg/L	5	5/16/2013
оН (25 °C)	SW9045	iC		Prep	Date: 5/16/2013	Analyst: RW
На	7.8			pH Units	1	5/16/2013
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	14.6	0.2	*	wt%	1	5/16/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-465-01(0-6)-050913D

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 11:35:00 AM

Lab ID:

13050358-020B

Matrix: Soil

Analyses

Result

Prep Date: 5/19/2013

DF

Date Analyzed Analyst: JG

Metals by ICP/MS Lead

SW6020 (SW3050B)

mg/Kg-dry

RL Qualifier Units

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-465-02.03.04(0-12)-050913

Lab Order:

13050358

Tag Number:

Project:

13030330

Collection Date 5/9/2013 11:40:00 AM

Lab ID:

13050358-021A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 5/15/2013	Analyst: LB
Mercury	0.33	0.019		mg/Kg-dry	1	5/15/2013
Metals by ICP/MS	SW60	20 (SW305	0B)	Prep	Date: 5/15/2013	Analyst: JG
Antimony	ND	4.7	•	mg/Kg-dry	20	5/16/2013
Cadmium	1.5	1.2		mg/Kg-dry	20	5/16/2013
Chromium	26	2.3		mg/Kg-dry	20	5/16/2013
Copper	53	5.9		mg/Kg-dry	20	5/16/2013
Lead	350	1.2		rng/Kg-dry	20	5/16/2013
Tin	13	12	*	mg/Kg-dry	20	5/16/2013
Zinc	310	12		mg/Kg-dry	20	5/16/2013
CLP Metals by ICP/MS	SW13	11/6020 (SV	V3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.063	0.005	•	mg/L	5	5/16/2013
ьН (25 °C)	SW90-	45C		Prep	Date: 5/16/2013	Analyst: RW
PΗ	7.7			pH Units	1	5/16/2013
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	16.4	0.2	240	wt%	1	5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-465-02.03.04(0-12)-050913

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 11:40:00 AM

Lab ID:

13050358-021B

Matrix: Soil

Analyses Result RL Qualifier Units DF Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 400 4.7 Prep Date: 5/19/2013

Analyst: JG

mg/Kg-dry 50

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050358-022A

Client Sample ID: PA-466-01(0-6)-050913

Lab Order:

13050358

Project:

Tag Number:

Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 2:15:00 PM

Matrix: Soil

Analyses	 Result	RL Qu	alifier	Units	DF	Date Analyzed
Mercury	SW7471	IA		Prep	Date: 5/15/2013	Analyst: LB
Mercury	0.59	0.021		mg/Kg-dry	1	5/15/2013
Metals by ICP/MS	SW6020	(SW3050B))	Prep	Date: 5/15/2013	Analyst: JG
Antimony	ND	4.5	r	mg/Kg-dry	20	5/16/2013
Cadmium	3.4	1.1	г	mg/Kg-dry	20	5/16/2013
Chromium	23	2.2	1	mg/Kg-dry	20	5/16/2013
Copper	210	5.6	r	mg/Kg-dry	20	5/16/2013
Lead	730	1.1	г	ng/Kg-dry	20	5/16/2013
Tin	25	11	* r	ng/Kg-dry	20	5/16/2013
Zinc	900	11	r	ng/Kg-dry	20	5/16/2013
CLP Metals by ICP/MS	SW1311	/6020 (SW30	005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.04	0.005		mg/L	5	5/16/2013
оН (25 °C)	SW9045	iC		Prep	Date: 5/16/2013	Analyst: RW
рН	7.8			pH Units	1	5/16/2013
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	14.9	0.2	*	wt%	1	5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting | Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-466-01(0-6)-050913

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

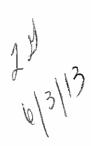
Collection Date 5/9/2013 2:15:00 PM

Lab ID:

13050358-022B

Matrix: Soil

Lab ID. 13030336-022B							_
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed	
In Vitro Extractable Metals by ICP/MS Lead	EPA 92	200/6020 0.1	(SW3005A) *	Prep mg/L	Date:	5/19/2013 Analyst: JG 5/22/2013	
In Vitro Bioaccessibility Lead	EPA 9 3	200/6020 0.01	*	Prep %	Date:	5/22/2013 Analyst: JG 5/22/2013	
Metals by ICP/MŞ Lead	SW602 870	20 (SW36 4.9		Prep ng/Kg-dry	Date: 50	5/19/2013 Analyst: JG 5/19/2013	



ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, 1L 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-466-02(0-6)-050913

Tag Number:

Lab Order: Project:

13050358

Collection Date 5/9/2013 2:20:00 PM

Lab ID:

13050358-023A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

· · ·								
Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed		
Mercury	SW7471	A		Prep	Date: 5/15/2013	Analyst: LB		
Mercury	0.52	0.023		mg/Kg-dry	1	5/15/2013		
Metals by ICP/MS	SW6020	(SW30)50B)	Prep	Date: 5/15/2013	Analyst: JG		
Antimony	ND	4.3		mg/Kg-dry	20	5/16/2013		
Cadmium	2.8	1.1		mg/Kg-dry	20	5/16/2013		
Chromium	47	2.2		mg/Kg-dry	20	5/16/2013		
Copper	120	5.5		mg/Kg-dry	20	5/16/2013		
Lead	650	1.1		mg/Kg-dry	20	5/16/2013		
Tin	23	11	•	mg/Kg-dry	20	5/16/2013		
Zinc	780	11		mg/Kg-dry	20	5/16/2013		
CLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Analyst: JG			
Lead	0.061	0.005		mg/L	5	5/16/2013		
oH (25 °C)	SW9045	С		Prep	Date: 5/16/2013	Analyst: RW		
Hq	7.9			pH Units	1	5/16/2013		
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW		
Percent Moisture	14.6	0.2	891	wt%	1	5/16/2013		

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-466-02(0-6)-050913

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 2:20:00 PM

Lab ID:

13050358-023B

Matrix: Soil

Analyses

SW6020 (SW3050B)

Prep Date: 5/19/2013

DF

Date Analyzed Analyst: JG

Metals by ICP/MS Lead

750

Result

 \mathbf{RL}

mg/Kg-dry

Qualifier Units

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-466-03(0-6)-050913

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 2:25:00 PM

Lab ID:

13050358-024A

Matrix: Soil

Analyses	Result RL	Qualifier	Units DF	Date Analyzed
Metals by ICP/MS Lead	SW6020 (SW3 0 700 1.1	,	Prep Date: 5/15/2 g/Kg-dry 20	2013 Analyst: JG 5/16/2013
Percent Moisture Percent Moisture	D2974 16.3 0.2	*	Prep Date: 5/16/2 wt% 1	2013 Analyst: RW 5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

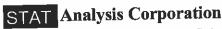
* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-466-04(0-6)-050913

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/9/2013 2:30:00 PM

Lab ID:

13050358-025A

Matrix: Soil

Lau ID.	10000000						
Analyses		Result	RL	Qualifie	Units	DF	Date Analyzed
Metals by ICP/M	s	SW6020 580	(SW305		Prep mg/Kg-dry		15/2013 Analyst: JG 5/16/2013
Percent Moisture		D2974 15.3	0.2	20	Prep wt%	Date: 5/ 1	16/2013 Analyst: RW 5/16/2013

HT - Sample received past holding time

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

B - Analyte detected in the associated Method Blank

^{* -} Non-accredited parameter

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-466-05(0-6)-050913

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 2:35:00 PM

Lab ID:

13050358-026A

Matrix: Soil

Analyses	Result	RL	Qualifier Un	its DF	Date Analyzed
Mercury	SW747	'1A		Prep Date: 5/15/	2013 Analyst: LB
Mercury	2.1	0.12	mg/Kg	-dry 5	5/15/2013
Metals by ICP/MS	SW602	0 (SW30	50B) I	Prep Date: 5/15/	2013 Analyst: JG
Antimony	ND	5	mg/Kg	-dry 20	5/16/2013
Cadmium	8.5	1.2	mg/Kg-	-dry 20	5/16/2013
Chromium	31	2.5	mg/Kg-	-dry 20	5/16/2013
Copper	460	6.3	mg/Kg-	dry 20	5/16/2013
Lead	2400	1.2	mg/Kg-	-dry 20	5/16/2013
Tin	58	12	* mg/Kg-	-dry 20	5/16/2013
Zinc	2400	12	mg/Kg-	dry 20	5/16/2013
TCLP Metals by ICP/MS	SW131	1/6020 (S	W3005A) F	Prep Date: 5/15/ 2	2013 Analyst: JG
Lead	0.78	0.005	mg/l	-	5/16/2013
pH (25 °C)	SW904	5C	F	Prep Date: 5/16/ 2	2013 Analyst: RW
рН	7.1		pH Un	•	5/16/2013
Percent Moisture	D2974		F	Prep Date: 5/16/2	2013 Analyst: RW
Percent Moisture	23.6	0.2	* wt%		5/16/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-466-05(0-6)-050913

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 2:35:00 PM

Lab ID:

13050358-026B

Matrix: Soil

Analyses Result RL Qualifier Units DF Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 3100 5

Prep Date: 5/21/2013

Analyst: **JG**

mg/Kg-dry 50

5/21/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-467-01(0-6)-050913

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 3:00:00 PM

Lab ID:

13050358-027A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/15/2013	Analyst: LB
Mercury	0.62	0.025		mg/Kg-dry	1	5/15/2013
Metals by ICP/MS	SW602	0 (SW30:	50B)	Prep	Date: 5/15/2013	Analyst: JG
Antimony	5.2 J	4.8		mg/Kg-dry	20	5/16/2013
Cadmium	7	1.2		mg/Kg-dry	20	5/16/2013
Chromium	55	2.5		mg/Kg-dry	20	5/16/2013
Copper	250	6.1		mg/Kg-dry	20	5/16/2013
Lead	1400	1.2		mg/Kg-dry	20	5/16/2013
∏n	34	12	*	mg/Kg-dry	20	5/16/2013
Zinc	1600	12		mg/Kg-dry	20	5/16/2013
CLP Metals by ICP/MS	SW1311	1/6020 (S	W3005A)	· Prep	Date: 5/15/2013	Analyst: JG
Lead	0.097	0.005		mg/L	5	5/16/2013
oH (25 °C)	SW9045	5C		Prep	Date: 5/16/2013	Analyst: RW
Hq	6.7			pH Units	1	5/16/2013
Percent Moisture	D2974			Prep	Date: 5/16/2 013	Analyst: RW
Percent Moisture	22.5	0.2		wt%	1	5/16/2013



ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-467-01(0-6)-050913

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 3:00:00 PM

Lab ID:

13050358-027B

Matrix: Soil

Analyses

Result

Qualifier Units RL

Metals by ICP/MS

SW6020 (SW3050B)

mg/Kg-dry

Prep Date: 5/21/2013

Analyst: JG

Date Analyzed

Lead

1600

50

5/21/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-468-01(0-6)-050913

Lab Order:

13050358

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 3:30:00 PM

Lab ID:

13050358-028A

Matrix: Soil

Analyses	Result	RL (Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/15/2013	Analyst: LB
Mercury	0.64	0.025		mg/Kg-dry	1	5/15/2013
Metals by ICP/MS	SW602	20 (SW305	0B)	Prep	Date: 5/15/2013	Analyst: JG
Antimony	5.2 J	5.2	•	mg/Kg-dry	20	5/16/2013
Cadmium	5.9	1.3		mg/Kg-dry	20	5/16/2013
Chromium	36	2.5		mg/Kg-dry	20	5/16/2013
Copper	290	6.5		mg/Kg-dry	20	5/16/2013
Lead	1300	1.3		mg/Kg-dry	20	5/16/2013
Tin	` 30	13	*	mg/Kg-dry	20	5/16/2013
Zinc	1600	13		mg/Kg-dry	20	5/16/2013
TCLP Metals by ICP/MS	SW131	1/6020 (SV	V3005A)	Prep	Date: 5/15/2013	Analyst: JG
Lead	0.066	0.005	,	mg/L	5	5/16/2013
pH (25 °C)	SW904	5C		Prep	Date: 5/16/2013	Analyst: RW
рН	7.1			pH Units	1	5/16/2013
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW
Percent Molsture	25.0	0.2	251	wt%	1	5/16/2013



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

- Non-accredited parameter

RL - Reporting | Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-468-01(0-6)-050913

Lab Order:

13050358

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/8/2013 3:30:00 PM

DF

Lab ID:

13050358-028B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Prep Date: 5/20/2013

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B)

Analyst: JG

960

2.5

mg/Kg-dry

5/20/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting ! Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

PILSEN AREA SOIL SITE CHICAGO, ILLINOIS DATA VALIDATION REPORT

Date: May 28, 2013

Laboratory: STAT Analysis Corporation (STAT), Chicago, Illinois

Laboratory Project #: 13050411

Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund

Technical Assessment and Response Team (START)

Analytical TDD and Work Order #: S05-0001-1211-003/20405.016.001.2038.00

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for 7 soil samples collected for the Pilsen Area Soil Site that were analyzed for the following parameters and U.S. Environmental Protection Agency methods:

- Total Metals by SW-846 Methods 6020 and 7471A
- Fine Grained Lead by SW-846 Method 6020
- Bioavailablity Lead by EPA Method 9200 and SW-846 Method 6020
- Toxicity Characteristic Leaching Procedure (TCLP) Lead by SW-846 Methods 1311 and 6020
- pH by SW-846 Method 9045C
- Moisture Content by ASTM D2974

A level II data package was requested from STAT. The data validation was conducted in general accordance with the EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

TOTAL METALS AND FINE GRAINED LEAD BY EPA SW-846 METHODS 6020 AND 7471A AND BIOAVAILABLE LEAD BY EPA METHOD 9200 AND SW-846 METHOD 6020

1. <u>Samples</u>

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. Holding Times

The samples were analyzed within the required holding time limit of 28 days for mercury and 180 days from sample collection to analysis for all other metals.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050411

3. Blank Results

Method blanks were analyzed with the metals analyses. The blanks contained some minor contamination. In most instances, the sample results were much greater or contained no detections of these metals and no qualifications were required. The exception is tin which was detected above the reporting limit at 2.9 milligrams per kilogram. All tin results were at less than ten times the blank result and were flagged "U" as not detected.

4. Laboratory Control Sample (LCS) Results

The LCS recoveries were within the quality control (QC) limits except for as follows.

In one LCS, antimony and tin were detected high. Because antimony was not detected in the samples, no qualifications were required. The tin results were flagged "J" as estimated.

5. Matrix Spike (MS) and MS Duplicate (MSD) Results

STAT analyzed several site-specific MS/MSDs. The percent recoveries and relative percent differences (RPD) were within QC limits except for as follows.

In many instances of QC limits not being met, the sample concentration was more than four times the spike amount. In these instances, no qualifications were required.

In the MS and MSD of sample PA-469-02(0-6)-051013, the antimony and tin recoveries were high. Detected results for antimony and tin were flagged "J" as estimated.

In the MS and MSD of sample PA-469-05(0-6)-051013, the antimony and copper were detected low. In this sample, detected results were flagged "J" and the quantiation limit for non-detected results were flagged "UJ" as estimated.

6. Field Duplicate Results

There are two field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. There is no established QC limit for RPD for field duplicates; however, 50 RPD is generally used for evaluation. The RPDs for detected metals were generally below 50 which is acceptable. The chromium RPD in one field duplicate was 57 percent; however, the difference between the two chromium results was minor and no qualifications were deemed necessary.

7. Overall Assessment

The metals data are acceptable for use as qualified based on the information received.

TCLP METALS BY EPA SW-846 METHODS 1311 AND 6020

1. Samples

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. <u>Holding Times</u>

The samples were analyzed within the required holding time limit of 180 days from sample collection.

3. Blank Results

Method blanks were analyzed with the metals analyses. Some of the blanks contained some minor lead contamination. In one method blank, TCLP lead was detected below the reporting limit at 0.006 milligrams per liter. Most of the TCLP lead results were detected at less than 5 times this blank amount and were flagged "U" as not detected.

4. <u>LCS Results</u>

The LCS recoveries were within the QC limits.

5. MS and MSD Results

STAT analyzed a few site-specific MS/MSD samples. The percent recoveries and RPDs were within QC limits.

6. Field Duplicate Results

There are two field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. The RPDs were below 50 which is acceptable.

7. Overall Assessment

The TCLP lead data are acceptable for use as qualified based on the information received.

GENERAL CHEMISTRY PARAMETERS (pH by SW-846 Method 9045C and Moisture Content by ASTM D2974)

1. <u>Samples</u>

Attachment A summarizes the samples for which this data validation is being conducted. It includes but the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. <u>Holding Times</u>

The holding time for pH is "as soon as possible" and the holding time for moisture is 28 days. The holding time for moisture was met. For pH, the samples were analyzed approximately 7 days from sample collection. No qualifications were applied.

3. Blank Results

Method blanks were analyzed with the moisture analyses and were all non-detect for moisture which is acceptable.

4. LCS Results

LCSs were analyzed with the moisture analyses. The LCS recoveries were within the QC limits except for one which was slightly below the QC limit. No qualification was applied for the minor discrepancy.

5. <u>Laboratory Duplicates</u>

Laboratory duplicates were analyzed with the pH and moisture analyses. The RPDs were within QC limits.

6. Field Duplicate Results

There are two field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. The RPDs were below 50 which is acceptable.

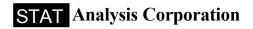
Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050411

7. Overall Assessment

The pH and moisture data are acceptable for use as qualified based on the information received.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050411

ATTACHMENT A SAMPLE LIST



Date: May 23, 2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL Work Order Sample Summary

Lab Order: 13050411

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13050411-001A	PA-469-01(0-6)-051013		5/10/2013 11:30:00 AM	5/10/2013
13050411-001B	PA-469-01(0-6)-051013	Fine Grained	5/10/2013 11:30:00 AM	5/10/2013
13050411-002A	PA-469-01(0-6)-051013D		5/10/2013 11:35:00 AM	5/10/2013
13050411-002B	PA-469-01(0-6)-051013D	Fine Grained	5/10/2013 11:35:00 AM	5/10/2013
13050411-003A	PA-469-02(0-6)-051013		5/10/2013 11:55:00 AM	5/10/2013
13050411-003B	PA-469-02(0-6)-051013	Fine Grained	5/10/2013 11:55:00 AM	5/10/2013
13050411-004A	PA-469-03(0-6)-051013		5/10/2013 12:30:00 PM	5/10/2013
13050411-004B	PA-469-03(0-6)-051013	Fine Grained	5/10/2013 12:30:00 PM	5/10/2013
13050411-005A	PA-469-04(0-6)-051013		5/10/2013 12:50:00 PM	5/10/2013
13050411-005B	PA-469-04(0-6)-051013	Fine Grained	5/10/2013 12:50:00 PM	5/10/2013
13050411-006A	PA-469-04(0-6)-051013D		5/10/2013 12:55:00 PM	5/10/2013
13050411-006B	PA-469-04(0-6)-051013D	Fine Grained	5/10/2013 12:55:00 PM	5/10/2013
13050411-007A	PA-469-05(0-6)-051013		5/10/2013 1:10:00 PM	5/10/2013
13050411-007B	PA-469-05(0-6)-051013	Fine Grained	5/10/2013 1:10:00 PM	5/10/2013

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13050411

ATTACHMENT B

STAT ANALYSIS CORPORATION RESULTS SUMMARY WITH QUALIFIERS

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 **Print Date:** May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-01(0-6)-051013

Lab Order:

13050411

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 11:30:00 AM

Lab ID:

13050411-001A

Matrix: Soil

Analyses	Result	RL	Qualific	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.67	0.021		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW60	20 (SW30)50B)	Prep	Date: 5/16/2013	Analyst: JG
Antimony	ND	4.5		mg/Kg-dry	20	5/16/2013
Cadmium	ND	1.1		mg/Kg-dry	20	5/16/2013
Chromium	35	2.3		mg/Kg-dry	20	5/16/2013
Copper	56	5.6		mg/Kg-dry	20	5/16/2013
Lead	130	1.1		mg/Kg-dry	20	5/16/2013
Tin	14 <i>U</i> J	11	*	mg/Kg-dry	20	5/16/2013
Zinc	180	11		mg/Kg-dry	20	5/16/2013
TCLP Metals by ICP/MS	SW13	11/6020 (SW3005A)	Prep	Date: 5/16/2013	Analyst: JG
Lead	0.019 ህ	0.0075	·	mg/L	5	5/17/2013
pH (25 °C)	SW90	45C		Prep	Date: 5/17/2013	Analyst: PB0
рН	7.8			pH Units	1	5/17/2013
Percent Moisture	D2974	ı		Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	17.8	0.2	*.	wt%	1	5/16/2013

24 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-01(0-6)-051013

Lab Order:

13050411

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 11:30:00 AM

Lab ID:

13050411-001B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 160

7.8

Prep Date: 5/19/2013 mg/Kg-dry

Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-01(0-6)-051013D

Lab Order:

13050411

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 11:35:00 AM

Lab ID:

13050411-002A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed	
Mercury	SW747	1A		Prep	Date: 5/13/2013	B Analyst: LB	
Mercury	0.49	0.022		mg/Kg-dry	1	5/13/2013	
Metals by ICP/MS	SW602	0 (SW30)50B)	Prep	Date: 5/16/2013	Analyst: JG	
Antimony	ND	4.8		mg/Kg-dry	20	5/16/2013	
Cadmium	ND	1.2		mg/Kg-dry	20	5/16/2013	
Chromium	23	2.3		mg/Kg-dry	20	5/16/2013	
Copper	49	6		mg/Kg-dry	20	5/16/2013	
Lead	120	1.2		mg/Kg-dry	20	5/16/2013	
Tin	13 レゴ	12	*	mg/Kg-dry	20	5/16/2013	
Zinc	170	12		mg/Kg-dry	20	5/16/2013	
TCLP Metals by ICP/MS	SW131	1/6020 (SW3005A)	Prep	Date: 5/16/2013	Analyst: JG	
Lead	0.016 U	0.0075	·	mg/L	5	5/17/2013	
pH (25 °C)	SW904	5C		Prep	Date: 5/17/2013	Analyst: PBG	
pH	7.7			pH Units	1	5/17/2013	
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW	
Percent Moisture	17.9	0.2	*6	wt%	1	5/16/2013	

28 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-01(0-6)-051013D

Lab Order:

13050411

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 11:35:00 AM

Lab ID:

13050411-002B

Matrix: Soil

Date Analyzed

Analyses

Result

RL Qualifier Units

Prep Date: 5/19/2013

DF

Analyst: JG

Metals by ICP/MS

SW6020 (SW3050B) 150

mg/Kg-dry

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-02(0-6)-051013

Lab Order:

13050411

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 11:55:00 AM

Lab ID: 13050411-003A **Matrix:** Soil

Analyses	Result	RL (Qualifier Units	DF	Date Analyzed
Mercury	SW74	71A	Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.25	0.025	mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW60	20 (SW3056	0B) Prep	Date: 5/16/2013	Analyst: JG
Antimony	ND	4.6	mg/Kg-dry	20	5/17/2013
Cadmium	ND	1.1	mg/Kg-dry	20	5/16/2013
Chromium	17	2.2	mg/Kg-dry	20	5/16/2013
Copper	44	5.7	mg/Kg-dry	20	5/16/2013
Lead	100	1.1	mg/Kg-dry	20	5/17/2013
Tin	13 ().	J 11	mg/Kg-dry	20	5/16/2013
Zinc	170	11	mg/Kg-dry	20	5/16/2013
TCLP Metals by ICP/MS	SW13	11/6020 (SV	V3005A) Prep	Date: 5/16/2013	Analyst: JG
Lead	0.012 U	0.0075	mg/L	5	5/17/2013
pH (25 °C)	SW90	45C	Prep	Date: 5/17/2013	Analyst: PBG
рΗ	7.8		pH Units	1	5/17/2013
Percent Moisture	D2974	1	Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	19.6	0.2	* wt%	1	5/16/2013

Jy 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-02(0-6)-051013

Lab Order:

13050411

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 11:55:00 AM

Lab ID:

13050411-003B

Matrix: Soil

Analyses

Result

RL Qualifier Units

Prep Date: 5/19/2013

Date Analyzed

Analyst: JG

Metals by ICP/MS

Lead

SW6020 (SW3050B) 170 5

mg/Kg-dry

50

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

- Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-03(0-6)-051013

Lab Order:

13050411

Tag Number:

Project:

13030411

Collection Date 5/10/2013 12:30:00 PM

Lab ID:

13050411-004A

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/13/2013	B Analyst: LB
Mercury	0.2	0.022		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	0 (SW30	50B)	Prep	Date: 5/16/2013	B Analyst: JG
Antimony	ND	4.9	•	mg/Kg-dry	20	5/16/2013
Cadmium	ND	1.2		mg/Kg-dry	20	5/16/2013
Chromium	19	2.5		mg/Kg-dry	20	5/16/2013
Copper	50	6.2		mg/Kg-dry	20	5/16/2013
Lead	120 11	1.2		mg/Kg-dry	20	5/16/2013
Tin	17 03	12	*	mg/Kg-dry	20	5/16/2013
Zinc	160	12		mg/Kg-dry	20	5/16/2013
TCLP Metals by ICP/MS	SW131	1/6020 (SW3005A)	Prep	Date: 5/16/2013	Analyst: JG
Lead	0.012	0.005	·	mg/L	5	5/17/2013
pH (25 °C)	SW904	5C		Prep	Date: 5/17/2013	Analyst: PBG
рН	7.5			pH Units	1	5/17/2013
Percent Moisture Percent Moisture	D2974 21.2	0.2	*	Prep wt%	Date: 5/16/2013	Analyst: RW 5/16/2013



ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-03(0-6)-051013

Lab Order:

13050411

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 12:30:00 PM

Lab ID:

13050411-004B

Matrix: Soil

Analyses

Result

RL Qualifier Units

DF Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 180 5

B) Pi

Prep Date: **5/19/2013** mg/Kg-dry 50

Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-04(0-6)-051013

Lab Order:

13050411

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 12:50:00 PM

Lab ID: 13050411-005A

Matrix: Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 5/13/2013	Analyst: LB
Mercury	0.17	0.023		mg/Kg-dry	1	5/13/2013
Metals by ICP/MS	SW602	0 (SW30	50B)	Prep	Date: 5/16/2013	Analyst: JG
Antimony	ND	4.8	·	mg/Kg-dry	20	5/16/2013
Cadmium	ND	1.2		mg/Kg-dry	20	5/16/2013
Chromium	34	2.5		mg/Kg-dry	20	5/16/2013
Copper	59	6.1		mg/Kg-dry	20	5/16/2013
Lead	110	1.2		mg/Kg-dry	20	5/16/2013
Tin	12 /	12	*	mg/Kg-dry	20	5/16/2013
Zinc	190	12		mg/Kg-dry	20	5/16/2013
TCLP Metals by ICP/MS	SW131	1/6020 (\$	SW3005A)	Prep	Date: 5/16/2013	Analyst: JG
Lead	0.0082 /	0.005	ŕ	mg/L	5	5/17/2013
pH (25 °C)	SW904	5C		Prep	Date: 5/17/2013	Analyst: PBG
рH	7.6		5	pH Units	1	5/17/2013
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	23.2	0.2	*	wt%	30	5/16/2013

2× 5/28/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-04(0-6)-051013

Lab Order:

13050411

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 12:50:00 PM

Lab ID:

13050411-005B

Matrix: Soil

Analyses

Result

 \mathbf{RL} Qualifier Units

Date Analyzed

Metals by ICP/MS Lead

SW6020 (SW3050B) 120

5

Prep Date: 5/19/2013 mg/Kg-dry

Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-04(0-6)-051013D

Lab Order:

13050411

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 12:55:00 PM

Lab ID:

13050411-006A

Matrix: Soil

Analyses	Result	RL Qı	ıalifier Units	DF	Date Analyzed
Mercury	SW747	'1A	Prep	Date: 5/14/2013	Analyst: LB
Mercury	0.13	0.024	mg/Kg-dry	1	5/14/2013
Metals by ICP/MS	SW602	20 (SW3050E) Prep	Date: 5/16/2013	Analyst: JG
Antimony	ND	5.1	mg/Kg-dry	20	5/16/2013
Cadmium	ND	1.3	mg/Kg-dry	20	5/16/2013
Chromium	19	2.6	mg/Kg-dry	20	5/16/2013
Copper	41	6.4	mg/Kg-dry	20	5/16/2013
Lead	80	1.3	mg/Kg-dry	20	5/16/2013
Tin	ND	13	* mg/Kg-dry	20	5/16/2013
Zinc	150	13	mg/Kg-dry	20	5/16/2013
TCLP Metals by ICP/MS	SW131	1/6020 (SW3	005A) Prep	Date: 5/16/2013	Analyst: JG
Lead	0.0095	0.005	mg/L	5	5/17/2013
pH (25 °C)	SW904	5C	Prep	Date: 5/17/2013	Analyst: PBG
рН	7.6		pH Units	1	5/17/2013
Percent Moisture	D2974		Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	21.7	0.2	* wt%	1	5/16/2013

ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013
Print Date: May 23, 2013

Client:

Weston Solutions

13050411-006B

Client Sample ID: PA-469-04(0-6)-051013D

Lab Order:

13050411

Tag Number: Fine Grained

Project:

13030411

Tag Number. Time Grames

Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 12:55:00 PM

Matrix: Soil

Analyses

Result

RL Qualifier Units

Prep Date: 5/19/2013

Date Analyzed

Metals by ICP/MS

Lead

SW6020 (SW3050B) 110 4.9

mg/Kg-dry

13 Analyst: JG

5/19/2013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

13050411-007A

Client Sample ID: PA-469-05(0-6)-051013

Lab Order:

13050411

Tag Number:

Project: Lab ID: Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 1:10:00 PM

Matrix: Soil

Analyses	Result	RL	Qualifie	er Units	DF	Date Analyzed
Mercury	SW7471	IA		Prep	Date: 5/14/2013	Analyst: LB
Mercury	0.28	0.024		mg/Kg-dry	1	5/14/2013
Metals by ICP/MS	SW6020	(SW30)50B)	Prep	Date: 5/16/2013	Analyst: JG
Antimony	CV DN	5.1		mg/Kg-dry	20	5/17/2013
Cadmium	ND	1.3		mg/Kg-dry	20	5/17/2013
Chromium	12	2.5		mg/Kg-dry	20	5/17/2013
Copper	94 🕇	6.4		mg/Kg-dry	20	5/17/2013
Lead	340 📈	1.3		mg/Kg-dry	20	5/17/2013
Tîn	22 0	13	*	mg/Kg-dry	20	5/17/2013
Zinc	360	13		mg/Kg-dry	20	5/17/2013
TCLP Metals by ICP/MS	SW1311	/6020 (SW3005A)	Prep	Date: 5/16/2013	Analyst: JG
Lead	0.57	0.005		mg/L	5	5/17/2013
pH (25 °C)	SW9045	iC		Prep	Date: 5/17/2013	Analyst: PBG
рH	8.0			pH Units	1	5/17/2013
Percent Moisture	D2974			Prep	Date: 5/16/2013	Analyst: RW
Percent Moisture	26.4	0.2		wt%	1	5/16/2013



ND - Not Detected at the Reporting Limit

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

> Report Date: May 23, 2013 Print Date: May 23, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-05(0-6)-051013

Lab Order:

13050411

Tag Number: Fine Grained

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date 5/10/2013 1:10:00 PM

Lah ID:

13050411-007B

Matrix: Soil

Lab ID: 13030411-00/B				TIAM CT 1		
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
In Vitro Extractable Metals by ICP/MS			(SW3005A)		Date: 5/19/201	3 Analyst: JG 5/22/2013
Lead	1.8	0.1	*	mg/L	20	5/22/2013
In Vitro Bioaccessibility	EPA 9	200/6020		Prep	Date: 5/22/201	•
Lead	54.3	0.01		%	1	5/22/2013
Metals by ICP/MS	SW60	20 (SW3	-		Date: 5/19/201	
Lead	330	5	n	ng/Kg-dry	50	5/19/2013

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

- Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

PILSEN AREA SOIL SITE CHICAGO, ILLINOIS DATA VALIDATION REPORT

Date: July 31, 2013

Laboratory: STAT Analysis Corporation (STAT), Chicago, Illinois

Laboratory Project #: 13070526

Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund

Technical Assessment and Response Team (START)

Analytical TDD and Work Order #: S05-0001-1211-003/20405.016.001.2038.00

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for 5 solid samples collected for the Pilsen Area Soil Site. The samples are source samples from a baghouse and have been held under custody by NEIC/USGS/EPA since collection in Colorado. The chain-of-custody for the samples state that the samples are less than 75 microns in particle size. The samples were analyzed for the following parameters and U.S. Environmental Protection Agency methods:

- Total Metals by SW-846 Methods 6020 and 7471A
- Moisture Content by ASTM D2974

A level II data package was requested from STAT. The data validation was conducted in general accordance with the EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

Laboratory Project #: 13070526

TOTAL METALS BY EPA SW-846 METHODS 6020 AND 7471A

1. <u>Samples</u>

The following table summarizes the samples for which this data validation is being conducted.

			Date	
Samples	Lab ID	Matrix	Collected	Date Analyzed
BH-1 N105006-05 Split B	13070526-001	Solid	Unknown	7/17/2013
BH-2 N105006-06 Split B	13070526-002	Solid	Unknown	7/17/2013
BH-4 N105006-08 Split B	13070526-003	Solid	Unknown	7/17/2013
BH-4 N105006-09 Split B	13070526-004	Solid	Unknown	7/17/2013
BH-5 N105006-07 Split B	13070526-005	Solid	Unknown	7/17/2013

2. <u>Holding Times</u>

The collection dates of the samples are unknown. However, the holding times for metals are 28 days for mercury and 180 days from sample collection to analysis for all other metals. Due to the long holding times for these analyses, it is assumed that they were likely not exceeded and no qualifications are necessary.

3. Blank Results

Method blanks were analyzed with the metals analyses. The blanks contained no metals contamination above the reporting limits. There were detections of lead, tin, and mercury below the reporting limits in the blanks. However, the sample results were much greater or contained no detections of these metals. No qualifications were required.

4. Laboratory Control Sample (LCS) Results

The LCS recoveries were within the quality control (QC) limits.

5. Matrix Spike (MS) and MS Duplicate (MSD) Results

STAT did not analyze a site-specific MS/MSD. Therefore matrix interferences could not be evaluated. No qualifications were applied.

6. Overall Assessment

The metals data are acceptable for use as qualified based on the information received.

GENERAL CHEMISTRY PARAMETERS (Moisture Content by ASTM D2974)

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

			Date	
Samples	Lab ID	Matrix	Collected	Date Analyzed
BH-1 N105006-05 Split B	13070526-001	Solid	Unknown	7/15/2013
BH-2 N105006-06 Split B	13070526-002	Solid	Unknown	7/15/2013
BH-4 N105006-08 Split B	13070526-003	Solid	Unknown	7/15/2013
BH-4 N105006-09 Split B	13070526-004	Solid	Unknown	7/15/2013
BH-5 N105006-07 Split B	13070526-005	Solid	Unknown	7/15/2013

2. Holding Times

The holding time for moisture is 28 days. The collection dates of the samples are unknown. Due to the long holding time for this analysis, it is assumed that they were likely not exceeded and no qualifications are necessary.

3. Blank Results

The method blank was non-detect for moisture which is acceptable.

4. LCS Results

The LCS recoveries were within the QC limits.

5. <u>Laboratory Duplicates</u>

The RPD was within QC limits for the laboratory duplicate.

6. Overall Assessment

The moisture data are acceptable for use based on the information received.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13070526

ATTACHMENT

STAT ANALYSIS CORPORATION RESULTS SUMMARY WITH QUALIFIERS

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

July 24, 2013

Weston Solutions
750 E. Bunker Court
Suite 500
Vernon Hills, IL 60061

Telephone: (847) 918-4094 Fax: (847) 918-4055

RE: VP1049, Pilsen Superfund

STAT Project No 13070526

Dear Tonya Balla:

STAT Analysis received 5 samples for the referenced project on 7/10/2013 9:37:00 AM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

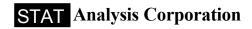
Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Thomas M. Bauer

General Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.



Date: July 24, 2013

Client: Weston Solutions

Project: VP1049, Pilsen Superfund Work Order Sample Summary

Lab Order: 13070526

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13070526-001A	BH-1 N105006-05 Split B			7/10/2013
13070526-002A	BH-2 N105006-06 Split B			7/10/2013
13070526-003A	BH-3 N105006-08 Split B			7/10/2013
13070526-004A	BH-4 N105006-09 Split B			7/10/2013
13070526-005A	BH-5 N105006-07 Split B			7/10/2013

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: July 24, 2013 Print Date: July 24, 2013

Client: Weston Solutions Client Sample ID: BH-1 N105006-05 Split B

Lab Order:13070526Tag Number:Project:VP1049, Pilsen SuperfundCollection DateLab ID:13070526-001AMatrix: Soil

Analyses	Result	RL Q	Qualifie	r Units	DF	Date Analyzed
Mercury	SW7471A			Prep	Analyst: LB	
Mercury	2.6	0.16		mg/Kg-dry	10	7/17/2013
Metals by ICP/MS	SW60	20 (SW3050)B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	75	36		mg/Kg-dry	100	7/17/2013
Cadmium	1500	8.9		mg/Kg-dry	100	7/17/2013
Chromium	44	18		mg/Kg-dry	100	7/17/2013
Copper	12000	45		mg/Kg-dry	100	7/17/2013
Lead	51000	890		mg/Kg-dry	10000	7/17/2013
Tin	5800	89	*	mg/Kg-dry	100	7/17/2013
Zinc	600000	8900		mg/Kg-dry	10000	7/17/2013
Percent Moisture	D2974	1		Prep	Date: 7/15/2013	Analyst: SDA
Percent Moisture	0.3	0.2	*	wt%	1	7/15/2013

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: July 24, 2013 Print Date: July 24, 2013

Client: Weston Solutions Client Sample ID: BH-2 N105006-06 Split B

Lab Order:13070526Tag Number:Project:VP1049, Pilsen SuperfundCollection DateLab ID:13070526-002AMatrix: Soil

Analyses	Result	RL Q	ualifie	er Units	DF	Date Analyzed
Mercury	SW747	SW7471A Prep			Date: 7/17/2013	Analyst: LB
Mercury	0.52	0.018		mg/Kg-dry	1	7/17/2013
Metals by ICP/MS	SW602	20 (SW3050)	B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	68	39		mg/Kg-dry	100	7/17/2013
Cadmium	1100	9.7		mg/Kg-dry	100	7/17/2013
Chromium	90	19		mg/Kg-dry	100	7/17/2013
Copper	12000	48		mg/Kg-dry	100	7/17/2013
Lead	42000	970		mg/Kg-dry	10000	7/17/2013
Tin	11000	97	*	mg/Kg-dry	100	7/17/2013
Zinc	550000	9700		mg/Kg-dry	10000	7/17/2013
Percent Moisture	D2974	ļ		Prep	Date: 7/15/2013	Analyst: SDA
Percent Moisture	0.3	0.2	*	wt%	1	7/15/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: July 24, 2013 Print Date: July 24, 2013

Client: Weston Solutions Client Sample ID: BH-3 N105006-08 Split B

Lab Order: 13070526 Tag Number: Project: VP1049, Pilsen Superfund **Collection Date** Lab ID:

13070526-003A Matrix: Soil

Analyses	Result	RL Q	Qualifi	er Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 7/17/2013	Analyst: LB
Mercury	3.2	0.21		mg/Kg-dry	10	7/17/2013
Metals by ICP/MS	SW602	0 (SW3050	B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	180	40		mg/Kg-dry	100	7/17/2013
Cadmium	510	9.9		mg/Kg-dry	100	7/17/2013
Chromium	92	20		mg/Kg-dry	100	7/17/2013
Copper	62000	5000		mg/Kg-dry	10000	7/17/2013
Lead	12000	990		mg/Kg-dry	10000	7/17/2013
Tin	5800	99	*	mg/Kg-dry	100	7/17/2013
Zinc	400000	9900		mg/Kg-dry	10000	7/17/2013
Percent Moisture	D2974			Prep	Date: 7/15/2013	Analyst: SDA
Percent Moisture	0.9	0.2	*	wt%	1	7/15/2013

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - $Reporting\ /\ Quantitation\ Limit\ for\ the\ analysis$

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: July 24, 2013 Print Date: July 24, 2013

Client: Weston Solutions Client Sample ID: BH-4 N105006-09 Split B

Lab Order:13070526Tag Number:Project:VP1049, Pilsen SuperfundCollection DateLab ID:13070526-004AMatrix: Soil

Analyses	Result	RL Qu	alifie	er Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 7/17/2013	Analyst: LB
Mercury	1.8	0.18		mg/Kg-dry	10	7/17/2013
Metals by ICP/MS	SW602	0 (SW3050B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	140	39		mg/Kg-dry	100	7/17/2013
Cadmium	500	9.7		mg/Kg-dry	100	7/17/2013
Chromium	71	19		mg/Kg-dry	100	7/17/2013
Copper	61000	4800		mg/Kg-dry	10000	7/17/2013
Lead	13000	970		mg/Kg-dry	10000	7/17/2013
Tin	5100	97	*	mg/Kg-dry	100	7/17/2013
Zinc	480000	9700		mg/Kg-dry	10000	7/17/2013
Percent Moisture	D2974			Prep	Date: 7/15/2013	Analyst: SDA
Percent Moisture	0.9	0.2	*	wt%	1	7/15/2013

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: July 24, 2013
Print Date: July 24, 2013

Client: Weston Solutions Client Sample ID: BH-5 N105006-07 Split B

Lab Order:13070526Tag Number:Project:VP1049, Pilsen SuperfundCollection DateLab ID:13070526-005AMatrix: Soil

Analyses	Result	RL (Qualifie	er Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/17/2013	Analyst: LB
Mercury	5.2	0.17		mg/Kg-dry	10	7/17/2013
Metals by ICP/MS	SW60	20 (SW3050)B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	49	35		mg/Kg-dry	100	7/17/2013
Cadmium	700	8.8		mg/Kg-dry	100	7/17/2013
Chromium	ND	18		mg/Kg-dry	100	7/17/2013
Copper	ND	4400		mg/Kg-dry	10000	7/17/2013
Lead	34000	880		mg/Kg-dry	10000	7/17/2013
Tin	6300	88	*	mg/Kg-dry	100	7/17/2013
Zinc	650000	8800		mg/Kg-dry	10000	7/17/2013
Percent Moisture	D2974	4		Prep	Date: 7/15/2013	Analyst: SDA
Percent Moisture	0.3	0.2	*	wt%	1	7/15/2013

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

NATIONAL ENFORCEMENT INVESTIGATIONS CENTER REMARKS Building 53, Box 25227, Deriver Federal Center Received by: (Signature) NOLVOISBER OV. FRANCS Received by: (Signature) 80225 Denver, Colorado Size forchor TAG NUMBERS Date / Time Date / Time 4 75 LLP > 2 > Remarks Relinquished by: (Signature) Relinquished by: (Signature) 7/10/13 937 13070526 CHAIN OF CUSTODY RECORD Date /Time TAINERS CON-NO. 10 Received for Laboratory by: Received by: (Signature) Received by: (Signeture) Semples split by T. Hosick 4/21/2013 NOSCODE - OS SPLIFB NIOS006-06 Split 3 Niosoul- of split B MIDSOOF-09 Spil B N105006-08 SplitB STATION LOCATION (Signature) Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files Pilsen Supuchural Date / Time Date / Time Date / Time ENVIRONMENTAL PROTECTION AGENCY Office of Enforcement and Compliance Monitoring Ca/27/2018 BARD PROJECT NAME Huray 9 Horich COMP Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature) TIME SAMPLERS: (Signature) DATE PROJ. NO. 471-1 STA. NO. 7-玉 P- 46 500 か・ま 一五 アナナス 58 ह 8

8 of 16

N 13703

* U. A. GOVERNMENT PRINTING OFFICE: 1986-772-427

Sample Receipt Checklist

Client Name EPA			Date and Tin	ne Received:	7/10/2013 9:37:00 AM
Work Order Number 13070526			Received by:	TJW	
Checklist completed by: J - US	7////	3	Reviewed by:	MAS	7/11/13
Matrix: Carrier	name <u>FedE</u>	×			
Shipping container/cooler in good condition?	Yes	~	No 🗆	Not Present .	
Custody seals intact on shippping container/cooler?	Yes		No 🗆	Not Present 🗹	
Custody seals intact on sample bottles?	Yes		No 🗆	Not Present 🗹	
Chain of custody present?	Yes	~	No 🗆		
Chain of custody signed when relinquished and received?	Yes	~	No 🗆		
Chain of custody agrees with sample labels/containers?	Yes	✓	No 🗆		
Samples in proper container/bottle?	Yes	~	No 🗆		
Sample containers intact?	Yes	v	No 🗆		
Sufficient sample volume for indicated test?	Yes (~	No .		
All samples received within holding time?	Yes (~	No 🗆		
Container or Temp Blank temperature in compliance?	Yes 6	~	No 🗆	Temperatur	re Ambient °C
Water - VOA vials have zero headspace? No VOA vial	s submitted		Yes 🗌	No 🗆	
Water - Samples pH checked?	Yes [No 🗆	Checked by:	
Water - Samples properly preserved?	Yes [No 🗆	pH Adjusted?	
Any No response must be detailed in the comments section be	low.		====		
Comments:					
Client / Person Date contacted:	t:		Conta	cled by:	
Response:					

PREP BATCH REPORT

STAT Analysis Corporation

7/16/2013 9:50:24 A 7/16/2013 1:05:00 P Prep Start Date:

Prep End Date:

mL/g Technician: VA M_S_PREP Prep Code: Prep Batch 70581

Prep Factor Units:

7/16/2013 PrepEnd **PrepStart** 7/16/2013 45.746 47.710 47.755 50.000 50.000 46.512 46.685 45.126 48.828 49.407 47.847 48.123 47.985 44.843 47.259 41.876 88.968 96.339 98.619 95.969 87.566 45.005 42.194 47.037 factor 20 Fin Vol 20 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Sol Recov 0 Sol Added 0 1.075 1.012 1.048 1.045 1.115 0.519 1.108 1.185 1.093 1.063 1.039 1.042 1.058 1.024 1.047 1.194 0.562 SampAmt 1.071 0.507 0.521 0.571 1.1 된 Matrix Soil 13070622-031AMSD 13070622-031AMS 13070622-030A 13070622-031A 13070526-001A 13070622-021A 13070622-023A 13070622-024A 13070622-025A 13070622-026A 13070622-027A 13070622-029A 13070622-032A 13070622-034A 13070622-035A 13070526-002A 13070526-003A 13070526-005A 13070622-028A 13070622-033A 13070526-004A 13070622-022A ILCSS2 7/16/13 IMBS2 7/16/13 Sample ID

CLIENT: Weston Solutions

Work Order: 13070526

Project: VP1049, Pilsen Superfund

ANALYTICAL QC SUMMARY REPORT

BatchID: 70581

Sample ID: IMBS2 7/16/13	SampType: MBLK	TestCod	TestCode: M_ICPMS_S	Units: mg/Kg		Prep Date:	7/16/2013		Run ID: ICP	Run ID: ICPMS_130717A	_
Client ID: ZZZZ	Batch ID: 70581	TestN	TestNo: SW6020			Analysis Date	Analysis Date: 7/17/2013		SeqNo: 2463021	3021	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit R	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	QN	1.0									
Cadmium	Q	0.25									
Chromium	Q	0.50									
Copper	Q	1.2									
Lead	0.0925	0.25									7
Tin	1.639	2.5									*
Zinc	ND	2.5									
Sample ID: ILCSS2 7/16/13	SampType: LCS	TestCod	TestCode: M_ICPMS_S	Units: mg/Kg		Prep Date:	7/16/2013		Run ID: ICP	Run ID: ICPMS_130717A	
Client ID: ZZZZ	Batch ID: 70581	TestN	TestNo: SW6020			Analysis Date:	9: 7/17/2013		SeqNo: 2463022	3022	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit R	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	14.68	1.0	12.5	0	117	80	120	0	0		
Cadmium	24.96	0.25	25	0	8.66	80	120	0	0		
Chromium	26.78	0.50	25	0	107	80	120	0	0		
Copper	27.12	1.2	25	0	108	80	120	0	0		
Lead	26.34	0.25	25	0.0925	105	80	120	0	0		
Tin	14.98	2.5	12.5	1.639	107	80	120	0	0		*
Zinc	23.39	2.5	25	0	93.6	80	120	0	0		
Sample ID: 13070622-031AMS	SampType: MS	TestCod	TestCode: M_ICPMS_S	Units: mg/Kg-dry	lry	Prep Date:	7/16/2013		Run ID: ICP	Run ID: ICPMS-2_130718A	8A
Client ID: ZZZZ	Batch ID: 70581	TestN	TestNo: SW6020			Analysis Date:	9: 7/18/2013		SeqNo: 2464940	4940	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit R	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	3123	110	28.58	3106	58.8	75	125	0	0		S

B - Analyte detected in the associated Method Blank E - Value above quantitation range S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded J - Analyte detected below quantitation limits ND - Not Detected at the Reporting Limit * - Non Accredited Parameter

Qualifiers:

11 of 16

CLIENT: Weston Solutions

Work Order: 13070526

Project: VP1049, Pilsen Superfund

ANALYTICAL QC SUMMARY REPORT

BatchID: 70581

Sample ID: 13070622-031AMS Client ID: ZZZZ	SampType: MS Batch ID: 70581	TestCode	TestCode: M_ICPMS_S TestNo: SW6020	Units: mg/Kg-dry	y-dry	Prep Date: Analysis Date:	s: 7/16/2013 e: 7/18/2013	e e	Run ID: ICPMS-2_130718A SeqNo: 2464993	MS-2_130718 4993	A 8
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony Cadmium Lead Tin	11.36 48.68 4565 119	4 + + + 6 + + +	14.29 28.58 28.58 14.29	9.899 20.88 4337 183.9	10.2 97.3 798 455	75 75 75 75	125 125 125 125	0000	0000		တ တ *တ
Sample ID: 13070622-031AMS Client ID: ZZZZ	SampType: MS Batch ID: 70581	TestCode	TestCode: M_ICPMS_S TestNo: SW6020	Units: mg/Kg-dry	y-dry	Prep Date: Analysis Date:	s: 7/16/2013 e: 7/19/2013	e e	Run ID: ICPMS-2_130719A SeqNo: 2466317	MS-2_130719	Αſ
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium Copper	114.2 539.5	2.3 5.7	28.58 28.58	91.32 584.7	80 -158	75 75	125 125	0	0		s
Sample ID: 13070622-031AMSD Client ID: ZZZZ	SampType: MSD Batch ID: 70581	TestCode TestNc	TestCode: M_ICPMS_S TestNo: SW6020	Units: mg/Kg-dry	y-dry	Prep Date: 7/16/2013 Analysis Date: 7/18/2013	s: 7/16/2013 e: 7/18/2013	e e	Run ID: ICPMS-2_130718A SeqNo: 2464941	MS-2_130718 4941	Αş
Analyte	Result 4577	PQL	SPK value 3	SPK Ref Val	%REC	LowLimit 75	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID: 13070622-031AMSD Client ID: ZZZZ	SampType: MSD Batch ID: 70581	TestCode	TestCode: M_ICPMS_S TestNo: SW6020	Uni		Prep Date: 7/16/2013 Analysis Date: 7/18/2013	2: 7/16/2013 9: 7/18/2013		Run ID: ICPMS-2_130718A SeqNo: 2464994	MS-2_130718	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony Cadmium Lead Tin	10.07 59.16 5219 182.1	4 + + + + + + + + + + + + + + + + + + +	14.18 28.36 28.36 14.18	9.899 20.88 4337 183.9	1.19 135 3110 -12.9	75 75 75 75	125 125 125 125	11.36 48.68 4565 119	12.1 19.4 13.4 1.9	20 20 20 20	S S S \$\text{S} \text{S}

B - Analyte detected in the associated Method Blank E - Value above quantitation range S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded J - Analyte detected below quantitation limits ND - Not Detected at the Reporting Limit * - Non Accredited Parameter

Qualifiers:

Weston Solutions CLIENT:

13070526 VP1049, Pilsen Superfund Work Order: Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: 70581

Sample ID:	Sample ID: 13070622-031AMSD SampType: MSD	SampType: MSD	TestCod	e: M_ICPMS_S	TestCode: M_ICPMS_S Units: mg/Kg-dry	lry	Prep Dat	Prep Date: 7/16/2013	13	Run ID: ICPI	Run ID: ICPMS-2_130719A	⋖
Client ID: ZZZZ	TITI I	Batch ID: 70581	TestN	TestNo: SW6020			Analysis Date: 7/19/2013	e: 7/19/201	3	SeqNo: 2466320	6320	
Analyte		Result	PQL	SPK value SPK Ref Val	PK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Chromium		126.6	2.3	28.36	91.32	125	75	125	114.2	10.3	20	
Copper		678.9	2.7	28.36	584.7	332	75	125	539.5	22.9	20	SR

/ limits B - Analyte detected in the associated Method Blank	E - Value above quantitation range	
S - Spike Recovery outside accepted recovery lin	R - RPD outside accepted recovery limits	H/HT - Holding Time Exceeded
ND - Not Detected at the Reporting Limit	J - Analyte detected below quantitation limits	* - Non Accredited Parameter
Qualifiers:		

PREP BATCH REPORT

Prep Factor Units:

STAT Analysis Corporation

Prep Start Date: 7/17/2013 12:45:00

Prep End Date: 7/17/2013 1:24:00 P

7/16/2013 7/16/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/16/2013 7/16/2013 7/16/2013 7/16/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 PrepEnd **PrepStart** 7/16/2013 7/16/2013 7/16/2013 7/16/2013 7/16/2013 7/16/2013 7/16/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 7/17/2013 93.750 78.125 100.000 84.034 91.185 91.463 80.645 80.863 90.090 95.847 82.645 89.552 78.125 83.333 93.750 84.034 80.645 88.496 106.007 88.235 83.565 85.960 90.634 factor 100.000 mL/g 30 30 30 Fin Vol 30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Sol Recov 0 Sol Added 0 Prep Code: M_HG_S_PRE Technician: LB 0.313 0.335 0.32 0.3 0.3 0.349 0.372 0.333 0.36 0.32 0.372 0.339 0.283 SampAmt 0.357 0.329 0.328 0.363 0.384 0.384 0.3590.331 0.371 0.357 된 Matrix Soil Prep Batch 70598 13070512-002BMSD 13070512-002BMS HGLCSS2 7/16/13 HGMBS2 7/16/13 13070512-001B 13070512-002B 13070477-001B 13070477-003B 13070477-004B 13070477-006B 13070477-007B 13070477-011B 13070478-001B 13070526-001A 13070701-001B 13070477-002B 13070477-005B 13070477-010B 13070526-004A 13070526-005A 13070477-008B 13070477-009B 13070526-002A 13070526-003A Sample ID

Weston Solutions CLIENT:

13070526 Work Order:

VP1049, Pilsen Superfund Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: 70598

Sample ID: HGMBS2 7/16/13 Client ID: ZZZZ	SampType: MBLK Batch ID: 70598	TestCox Testh	sstCode: M_HG_SOI TestNo: SW7471A	TestCode: M_HG_SOLID Units: mg/Kg TestNo: SW7471A		Prep Date	Prep Date: 7/16/2013 Analysis Date: 7/16/2013	e	Run ID: CETAC_ SeqNo: 2461593	Run ID: CETAC_130716B SeqNo: 2461593	
Analyte	Result	Pal	SPK value	SPK Ref Val	%REC	%REC LowLimit	HighLimit RPD Ref Val	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.002	0.020									٦
Sample ID: HGLCSS2 7/16/13	SampType: LCS	TestCoc	de: M_HG_SOI	TestCode: M_HG_SOLID Units: mg/Kg		Prep Date	Prep Date: 7/16/2013	8	Run ID: CEI	Run ID: CETAC_130716B	
Client ID: ZZZZ	Batch ID: 70598	Test	TestNo: SW7471A			Analysis Dat	Analysis Date: 7/16/2013	m	SeqNo: 2461594	1594	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.239	0.020	0.25	0.002	94.8	80	120	0	0		
Sample ID: 13070512-002BMS	SampType: MS	TestCoc	te: M_HG_SOI	TestCode: M_HG_SOLID Units: mg/Kg-dry	r,	Prep Date	Prep Date: 7/16/2013	3	Run ID: CEI	Run ID: CETAC_130716B	
Client ID: ZZZZ	Batch ID: 70598	Test	TestNo: SW7471A		•	Analysis Dat	Analysis Date: 7/16/2013	8	SeqNo: 2461598	1598	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.2931	0.025	0.3066	0.01111	92	75	125	0	0		
Sample ID: 13070512-002BMSD	SampType: MSD	TestCoc	te: M_HG_SOI	TestCode: M_HG_SOLID Units: mg/Kg-dry	7.	Prep Date	Prep Date: 7/16/2013	8	Run ID: CEI	Run ID: CETAC_130716B	
Client ID: ZZZZ	Batch ID: 70598	Test	TestNo: SW7471A		•	Analysis Date:	e: 7/16/2013	e	SeqNo: 2461599	1599	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.3069	0.025	0.3094	0.01111	92.6	75	125	0.2931	4.61	20	

ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated
J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	E - Value above quantitation range
* - Non Accredited Parameter	H/HT - Holding Time Exceeded	

Qualifiers:

B - Analyte detected in the associated Method Blank

CLIENT: Weston Solutions

Work Order: 13070526

Project: VP1049, Pilsen Superfund

ANALYTICAL QC SUMMARY REPORT

BatchID: R91092

Sample ID: PMMBK 1 7/15/13	SampType: MBLK	TestCode: PMOIST	NOIST	Units: wt%		Prep Date:	Prep Date: 7/15/2013		Run ID: BALANCE_130715B	ANCE_13071	5B
Client ID: ZZZZ	Batch ID: R91092	TestNo: D2974	974		-	Analysis Date: 7/15/2013	E 7/15/2013		SeqNo: 2460796	9620	
Analyte	Result	PQL SPM	SPK value	SPK Ref Val	%REC	LowLimit HighLimit		RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	QN	0.200									*
Sample ID: PMLCS-S 1 7/15/13 Client ID: ZZZZ	SampType: LCS Batch ID: R91092	TestCode: PMOIST TestNo: D2974	AOIST 974	Units: wt%	ì	Prep Date: 7/15/2013 Analysis Date: 7/15/2013	Prep Date: 7/15/2013 alysis Date: 7/15/2013		Run ID: BALANCE_130715B SeqNo: 2460797	ANCE_13071	5B
Analyte	Result	PQL SPK	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD F	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	4.4	0.200	2	0	88	80	120	0	0		*
Sample ID: PMLCS-W 1 7/15/13 Client ID: ZZZZ	SampType: LCS Batch ID: R91092	TestCode: PMOIST TestNo: D2974	AOIST 974	Units: wt%		Prep Date: 7/15/2013 Analysis Date: 7/15/2013	Prep Date: 7/15/2013 alysis Date: 7/15/2013		Run ID: BALANCE_130715B SeqNo: 2460798	ANCE_13071	15B
Analyte	Result	PQL SPM	SPK value	SPK Ref Val	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	99.84	0.200	8.66	0	100	80	120	0	0		*
Sample ID: 13070617-008B DUP Client ID: ZZZZ	SampType: DUP Batch ID: R91092	TestCode: PMOIST TestNo: D2974	AOIST 974	Units: wt%		Prep Date: 7/15/2013 Analysis Date: 7/15/2013	Prep Date: 7/15/2013 alysis Date: 7/15/2013		Run ID: BALANCE_130715B SeqNo: 2460816	ANCE_13071	15B
Analyte	Result	PQL SPM	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD F	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	13.86	0.200	0	0	0	0	0	14.94	7.50	20	*

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

Qualifiers:

* - Non Accredited Parameter

B - Analyte detected in the associated Method Blank E - Value above quantitation range

PILSEN AREA SOIL SITE CHICAGO, ILLINOIS DATA VALIDATION REPORT

Date: August 8, 2013

Laboratory: STAT Analysis Corporation (STAT), Chicago, Illinois

Laboratory Project #: 13070622

Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund

Technical Assessment and Response Team (START)

Analytical TDD and Work Order #: S05-0001-1211-003/20405.016.001.2038.00

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for 35 soil samples collected for the Pilsen Area Soil Site that were analyzed for the following parameters and U.S. Environmental Protection Agency methods:

- Total Metals by SW-846 Methods 6020 and 7471A
- Fine Grained Lead by SW-846 Method 6020
- Moisture Content by ASTM D2974

A level II data package was requested from STAT. The data validation was conducted in general accordance with the EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

TOTAL METALS AND FINE GRAINED LEAD BY EPA SW-846 METHODS 6020 AND 7471A

1. <u>Samples</u>

Attachment A summarizes the samples for which this data validation is being conducted. It includes the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. <u>Holding Times</u>

The samples were analyzed within the required holding time limit of 28 days for mercury and 180 days from sample collection to analysis for all other metals.

Data Validation Report
Pilsen Area Soil Site
STAT Analysis Corporation
Laboratory Project #: 13070622

3. Blank Results

Method blanks were analyzed with the metals analyses. The blanks contained no metals contamination above the reporting limits. There were detections of some metals below the reporting limits in the blanks. However, the sample results were much greater or contained no detections of these metals. No qualifications were required.

4. <u>Laboratory Control Sample (LCS) Results</u>

The LCS recoveries were within the quality control (QC) limits except for as follows.

In two LCSs, antimony was detected high. Detected antimony results were flagged "J" as estimated.

5. Matrix Spike (MS) and MS Duplicate (MSD) Results

STAT analyzed several site-specific MS/MSDs. The percent recoveries and relative percent differences (RPD) were within QC limits except for as follows.

In many instances of QC limits not being met, the sample concentration was more than four times the spike amount. In these instances, no qualifications were required.

In the MS and MSD of sample PA-484-01(6-18)-071213, cadmium had a high recovery and antimony had a low recovery. In the MS/MSD of sample PA-474-02(0-6)-071013, the antimony and mercury recovery was low. In these samples, the quantitation limits for non-detected results were flagged "UJ" and the detected results were flagged "J" as estimated.

6. Field Duplicate Results

There are four field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. There is no established QC limit for RPD for field duplicates; however, 50 RPD is generally used for evaluation. Most of the RPDs for detected metals were below 50 which is acceptable.

The exceptions were tin in field duplicate PA-472-01(0-6)-070913D had an RPD of 102 and lead in field duplicate PA-469-03(6-15)-071113D which had an RPD of 77. These two higher RPDs indicate minor sample heterogeneity. However, in general the field duplicate results agreed well with the investigative sample results.

Laboratory Project #: 13070622

7. Overall Assessment

The metals data are acceptable for use as qualified based on the information received.

GENERAL CHEMISTRY PARAMETER (Moisture Content by ASTM D2974)

1. Samples

Attachment A summarizes the samples for which this data validation is being conducted. It includes the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. Holding Times

The holding time for moisture is 28 days. The holding time for moisture was met.

3. Blank Results

Method blanks were analyzed with the moisture analyses and were all non-detect for moisture which is acceptable.

4. LCS Results

LCSs were analyzed with the moisture analyses. The LCS recoveries were within the QC limits.

5. Laboratory Duplicates

Laboratory duplicates were analyzed with the moisture analyses. The RPDs were within QC limits.

6. <u>Field Duplicate Results</u>

There are three field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. The RPDs were below 50 which is acceptable.

7. Overall Assessment

The moisture data are acceptable for use based on the information received.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13070622

ATTACHMENT A SAMPLE LIST

Date: August 02, 2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL Work Order Sample Summary

Lab Order: 13070622

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13070622-001A	-	rag rumber	7/9/2013 10:15:00 AM	7/12/2013
	PA-92-01(6-12)-070913	Fine Grained		
13070622-001B	PA-92-01(6-12)-070913	rine Grained	7/9/2013 10:15:00 AM	7/12/2013
13070622-002A	PA-92-01(12-24)-070913	E. C . 1	7/9/2013 11:40:00 AM	7/12/2013
13070622-002B	PA-92-01(12-24)-070913	Fine Grained	7/9/2013 11:40:00 AM	7/12/2013
13070622-003A	PA-470-01(0-6)-070913	E. C . 1	7/9/2013 11:45:00 AM	7/12/2013
13070622-003B	PA-470-01(0-6)-070913	Fine Grained	7/9/2013 11:45:00 AM	7/12/2013
13070622-004A	PA-471-01(0-6)-070913	F: 0 : 1	7/9/2013 1:30:00 PM	7/12/2013
13070622-004B	PA-471-01(0-6)-070913	Fine Grained	7/9/2013 1:30:00 PM	7/12/2013
13070622-005A	PA-472-01(0-6)-070913		7/9/2013 2:45:00 PM	7/12/2013
13070622-005B	PA-472-01(0-6)-070913	Fine Grained	7/9/2013 2:45:00 PM	7/12/2013
13070622-006A	PA-472-01(0-6)-070913D		7/9/2013 2:50:00 PM	7/12/2013
13070622-006B	PA-472-01(0-6)-070913D	Fine Grained	7/9/2013 2:50:00 PM	7/12/2013
13070622-007A	PA-473-01(0-6)-070913		7/9/2013 3:45:00 PM	7/12/2013
13070622-007B	PA-473-01(0-6)-070913	Fine Grained	7/9/2013 3:45:00 PM	7/12/2013
13070622-008A	PA-473-01(6-18)-070913		7/9/2013 3:50:00 PM	7/12/2013
13070622-008B	PA-473-01(6-18)-070913	Fine Grained	7/9/2013 3:50:00 PM	7/12/2013
13070622-009A	PA-473-01(18-24)-070913		7/9/2013 3:55:00 PM	7/12/2013
13070622-009B	PA-473-01(18-24)-070913	Fine Grained	7/9/2013 3:55:00 PM	7/12/2013
13070622-010A	PA-474-01(0-6)-071013		7/10/2013 10:45:00 AM	7/12/2013
13070622-010B	PA-474-01(0-6)-071013	Fine Grained	7/10/2013 10:45:00 AM	7/12/2013
13070622-011A	PA-474-01(6-18)-071013		7/10/2013 10:50:00 AM	7/12/2013
13070622-011B	PA-474-01(6-18)-071013	Fine Grained	7/10/2013 10:50:00 AM	7/12/2013
13070622-012A	PA-474-02(0-6)-071013		7/10/2013 10:55:00 AM	7/12/2013
13070622-012B	PA-474-02(0-6)-071013	Fine Grained	7/10/2013 10:55:00 AM	7/12/2013
13070622-013A	PA-475-01(0-6)-071013		7/10/2013 11:45:00 AM	7/12/2013
13070622-013B	PA-475-01(0-6)-071013	Fine Grained	7/10/2013 11:45:00 AM	7/12/2013
13070622-014A	PA-476-01(0-6)-071013		7/10/2013 2:30:00 PM	7/12/2013
13070622-014B	PA-476-01(0-6)-071013	Fine Grained	7/10/2013 2:30:00 PM	7/12/2013
13070622-015A	PA-477-01(0-6)-071013		7/10/2013 4:00:00 PM	7/12/2013
13070622-015B	PA-477-01(0-6)-071013	Fine Grained	7/10/2013 4:00:00 PM	7/12/2013
13070622-016A	PA-477-01(6-18)-071013		7/10/2013 4:05:00 PM	7/12/2013
13070622-016B	PA-477-01(6-18)-071013	Fine Grained	7/10/2013 4:05:00 PM	7/12/2013
13070622-017A	PA-478-01(0-6)-071013		7/10/2013 5:25:00 PM	7/12/2013
13070622-017B	PA-478-01(0-6)-071013	Fine Grained	7/10/2013 5:25:00 PM	7/12/2013
13070622-018A	PA-478-01(0-6)-071013D		7/10/2013 5:30:00 PM	7/12/2013
13070622-018B	PA-478-01(0-6)-071013D	Fine Grained	7/10/2013 5:30:00 PM	7/12/2013
13070622-019A	PA-479-01(0-6)-071113		7/11/2013 10:40:00 AM	7/12/2013
13070622-019B	PA-479-01(0-6)-071113	Fine Grained	7/11/2013 10:40:00 AM	7/12/2013
	. /			

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL

Lab Order: 13070622

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13070622-020A	PA-480-01(0-6)-071113		7/11/2013 10:45:00 AM	7/12/2013
13070622-020B	PA-480-01(0-6)-071113	Fine Grained	7/11/2013 10:45:00 AM	7/12/2013
13070622-021A	PA-481-01(0-6)-071113		7/11/2013 11:50:00 AM	7/12/2013
13070622-021B	PA-481-01(0-6)-071113	Fine Grained	7/11/2013 11:50:00 AM	7/12/2013
13070622-022A	PA-482-01(0-6)-071113		7/11/2013 2:30:00 PM	7/12/2013
13070622-022B	PA-482-01(0-6)-071113	Fine Grained	7/11/2013 2:30:00 PM	7/12/2013
13070622-023A	PA-482-01(6-18)-071113		7/11/2013 2:35:00 PM	7/12/2013
13070622-023B	PA-482-01(6-18)-071113	Fine Grained	7/11/2013 2:35:00 PM	7/12/2013
13070622-024A	PA-469-01(6-15)-071113		7/11/2013 4:50:00 PM	7/12/2013
13070622-024B	PA-469-01(6-15)-071113	Fine Grained	7/11/2013 4:50:00 PM	7/12/2013
13070622-025A	PA-469-02(6-15)-071113		7/11/2013 4:55:00 PM	7/12/2013
13070622-025B	PA-469-02(6-15)-071113	Fine Grained	7/11/2013 4:55:00 PM	7/12/2013
13070622-026A	PA-469-03(6-15)-071113		7/11/2013 5:00:00 PM	7/12/2013
13070622-026B	PA-469-03(6-15)-071113	Fine Grained	7/11/2013 5:00:00 PM	7/12/2013
13070622-027A	PA-469-03(6-15)-071113D		7/11/2013 5:05:00 PM	7/12/2013
13070622-027B	PA-469-03(6-15)-071113D	Fine Grained	7/11/2013 5:05:00 PM	7/12/2013
13070622-028A	PA-483-01(0-6)-071213		7/12/2013 9:55:00 AM	7/12/2013
13070622-028B	PA-483-01(0-6)-071213	Fine Grained	7/12/2013 9:55:00 AM	7/12/2013
13070622-029A	PA-483-01(6-24)-071213		7/12/2013 10:00:00 AM	7/12/2013
13070622-029B	PA-483-01(6-24)-071213	Fine Grained	7/12/2013 10:00:00 AM	7/12/2013
13070622-030A	PA-484-01(0-6)-071213		7/12/2013 11:40:00 AM	7/12/2013
13070622-030B	PA-484-01(0-6)-071213	Fine Grained	7/12/2013 11:40:00 AM	7/12/2013
13070622-031A	PA-484-01(6-18)-071213		7/12/2013 11:45:00 AM	7/12/2013
13070622-031B	PA-484-01(6-18)-071213	Fine Grained	7/12/2013 11:45:00 AM	7/12/2013
13070622-032A	PA-485-01(0-6)-071213		7/12/2013 1:30:00 PM	7/12/2013
13070622-032B	PA-485-01(0-6)-071213	Fine Grained	7/12/2013 1:30:00 PM	7/12/2013
13070622-033A	PA-486-01(0-6)-071213		7/12/2013 2:40:00 PM	7/12/2013
13070622-033B	PA-486-01(0-6)-071213	Fine Grained	7/12/2013 2:40:00 PM	7/12/2013
13070622-034A	PA-486-01(6-24)-071213		7/12/2013 2:45:00 PM	7/12/2013
13070622-034B	PA-486-01(6-24)-071213	Fine Grained	7/12/2013 2:45:00 PM	7/12/2013
13070622-035A	PA-48601(6-24)-071213D		7/12/2013 2:50:00 PM	7/12/2013
13070622-035B	PA-48601(6-24)-071213D	Fine Grained	7/12/2013 2:50:00 PM	7/12/2013

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13070622

ATTACHMENT B

STAT ANALYSIS CORPORATION RESULTS SUMMARY WITH QUALIFIERS

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-92-01(6-12)-070913

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 10:15:00 AM

Lab ID: 13070622-001A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF I	Date Analyzed
Mercury	SW747	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	1.4	0.12		mg/Kg-dry	5	7/18/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.7		mg/Kg-dry	20	7/18/2013
Cadmium	2.3	1.2		mg/Kg-dry	20	7/18/2013
Chromium	18	2.3		mg/Kg-dry	20	7/18/2013
Copper	88	5.8		mg/Kg-dry	20	7/18/2013
Lead	550	1.2		mg/Kg-dry	20	7/18/2013
Tin	22	12	*	mg/Kg-dry	20	7/18/2013
Zinc	650	12		mg/Kg-dry	20	7/18/2013
Percent Moisture	D2974			Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	20.1	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-92-01(6-12)-070913

Lab Order: 13070622 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 10:15:00 AM

Lab ID: 13070622-001B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 920
 5
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-92-01(12-24)-070913

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 11:40:00 AM

Lab ID: 13070622-002A **Matrix:** Soil

Analyses	Result	RL Q	ualifier	Units	DF I	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	2.5	0.22		mg/Kg-dry	10	7/18/2013
Metals by ICP/MS	SW60	20 (SW305	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.3		mg/Kg-dry	20	7/18/2013
Cadmium	3.2	1.1		mg/Kg-dry	20	7/18/2013
Chromium	23	2.2		mg/Kg-dry	20	7/18/2013
Copper	140	5.4		mg/Kg-dry	20	7/18/2013
Lead	890	1.1		mg/Kg-dry	20	7/18/2013
Tin	35	11	*	mg/Kg-dry	20	7/18/2013
Zinc	1000	11		mg/Kg-dry	20	7/18/2013
Percent Moisture	D2974	ļ		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	18.3	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-92-01(12-24)-070913

Lab Order: 13070622 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 11:40:00 AM

Lab ID: 13070622-002B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 850
 5
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-470-01(0-6)-070913

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 11:45:00 AM

Lab ID: 13070622-003A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF I	Date Analyzed
Mercury	SW747	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	1.2	0.23		mg/Kg-dry	10	7/18/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	5.2		mg/Kg-dry	20	7/18/2013
Cadmium	12	1.3		mg/Kg-dry	20	7/18/2013
Chromium	39	2.6		mg/Kg-dry	20	7/18/2013
Copper	430	6.4		mg/Kg-dry	20	7/18/2013
Lead	3200	1.3		mg/Kg-dry	20	7/18/2013
Tin	120	13	*	mg/Kg-dry	20	7/18/2013
Zinc	3500	130		mg/Kg-dry	200	7/18/2013
Percent Moisture	D2974			Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	26.9	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions **Client Sample ID:** PA-470-01(0-6)-070913

Lab Order: 13070622 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL **Collection Date:** 7/9/2013 11:45:00 AM

Lab ID: 13070622-003B Matrix: Soil

Analyses Result RLQualifier Units DF **Date Analyzed**

Metals by ICP/MS SW6020 (SW3050B) Prep Date: 7/25/2013 Analyst: JG 3300 7/25/2013 Lead 4.8 mg/Kg-dry 100

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-471-01(0-6)-070913

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 1:30:00 PM

Lab ID: 13070622-004A **Matrix:** Soil

Analyses	Result	RL Q	Qualifie	er Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	1	0.11		mg/Kg-dry	5	7/18/2013
Metals by ICP/MS	SW60	20 (SW305	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	5.4		mg/Kg-dry	20	7/18/2013
Cadmium	7.2	1.4		mg/Kg-dry	20	7/18/2013
Chromium	46	2.7		mg/Kg-dry	20	7/18/2013
Copper	230	6.8		mg/Kg-dry	20	7/18/2013
Lead	1900	1.4		mg/Kg-dry	20	7/18/2013
Tin	40	14	*	mg/Kg-dry	20	7/18/2013
Zinc	2000	14		mg/Kg-dry	20	7/18/2013
Percent Moisture	D2974	ı		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	30.1	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-471-01(0-6)-070913

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 1:30:00 PM

Lab ID: 13070622-004B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1800
 4.5
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions **Client Sample ID:** PA-472-01(0-6)-070913

Lab Order: 13070622 Tag Number:

Collection Date: Project: Pilsen Soil Site, Pilsen, Chicago, IL 7/9/2013 2:45:00 PM

Lab ID: 13070622-005A Matrix:

Analyses	Result	RL Q	ualifie	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.67	0.02		mg/Kg-dry	1	7/18/2013
Metals by ICP/MS	SW60	20 (SW3050	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.6		mg/Kg-dry	20	7/19/2013
Cadmium	5.6	1.2		mg/Kg-dry	20	7/19/2013
Chromium	45	2.3		mg/Kg-dry	20	7/19/2013
Copper	130	5.8		mg/Kg-dry	20	7/19/2013
Lead	940	1.2		mg/Kg-dry	20	7/19/2013
Tin	52	12	*	mg/Kg-dry	20	7/19/2013
Zinc	1100	12		mg/Kg-dry	20	7/19/2013
Percent Moisture	D2974	ļ		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	19.5	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-472-01(0-6)-070913

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 2:45:00 PM

Lab ID: 13070622-005B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1100
 4.4
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-472-01(0-6)-070913D

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 2:50:00 PM

Lab ID: 13070622-006A **Matrix:** Soil

Analyses	Result	RL (Qualifie	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.68	0.021		mg/Kg-dry	1	7/18/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.9		mg/Kg-dry	20	7/19/2013
Cadmium	4.7	1.2		mg/Kg-dry	20	7/19/2013
Chromium	49	2.5		mg/Kg-dry	20	7/19/2013
Copper	140	6.1		mg/Kg-dry	20	7/19/2013
Lead	1200	1.2		mg/Kg-dry	20	7/19/2013
Tin	160	12	*	mg/Kg-dry	20	7/19/2013
Zinc	730	12		mg/Kg-dry	20	7/19/2013
Percent Moisture	D2974	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	19.5	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-472-01(0-6)-070913D

Lab Order: 13070622 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 2:50:00 PM

Lab ID: 13070622-006B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1000
 4.8
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-473-01(0-6)-070913

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 3:45:00 PM

Lab ID: 13070622-007A **Matrix:** Soil

Analyses	Result	RL (Qualifie	er Units	DF	Date Analyzed
Mercury	SW747	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	1.1	0.13		mg/Kg-dry	5	7/18/2013
Metals by ICP/MS	SW602	20 (SW305	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	5.2		mg/Kg-dry	20	7/19/2013
Cadmium	9.1	1.3		mg/Kg-dry	20	7/19/2013
Chromium	87	2.6		mg/Kg-dry	20	7/19/2013
Copper	160	6.5		mg/Kg-dry	20	7/19/2013
Lead	1700	1.3		mg/Kg-dry	20	7/19/2013
Tin	43	13	*	mg/Kg-dry	20	7/19/2013
Zinc	970	13		mg/Kg-dry	20	7/19/2013
Percent Moisture	D2974			Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	26.6	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-473-01(0-6)-070913

Lab Order: 13070622 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 3:45:00 PM

Lab ID: 13070622-007B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1600
 4.8
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-473-01(6-18)-070913

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 3:50:00 PM

Lab ID: 13070622-008A **Matrix:** Soil

Analyses	Result	RL (Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	'1A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	1.4	0.12		mg/Kg-dry	5	7/18/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.9		mg/Kg-dry	20	7/19/2013
Cadmium	5.8	1.2		mg/Kg-dry	20	7/19/2013
Chromium	47	2.5		mg/Kg-dry	20	7/19/2013
Copper	150	6.2		mg/Kg-dry	20	7/19/2013
Lead	1600	1.2		mg/Kg-dry	20	7/19/2013
Tin	39	12	*	mg/Kg-dry	20	7/19/2013
Zinc	880	12		mg/Kg-dry	20	7/19/2013
Percent Moisture	D2974			Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	21.2	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-473-01(6-18)-070913

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 3:50:00 PM

Lab ID: 13070622-008B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1300
 4.6
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-473-01(18-24)-070913

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 3:55:00 PM

Lab ID: 13070622-009A **Matrix:** Soil

Analyses	Result	RL (Qualifie	er Units	DF I	Date Analyzed
Mercury	SW747	1A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.99	0.1		mg/Kg-dry	5	7/18/2013
Metals by ICP/MS	SW602	0 (SW305	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.3		mg/Kg-dry	20	7/19/2013
Cadmium	ND	1.1		mg/Kg-dry	20	7/19/2013
Chromium	19	2.2		mg/Kg-dry	20	7/19/2013
Copper	37	5.4		mg/Kg-dry	20	7/19/2013
Lead	140	1.1		mg/Kg-dry	20	7/19/2013
Tin	ND	11	*	mg/Kg-dry	20	7/19/2013
Zinc	150	11		mg/Kg-dry	20	7/19/2013
Percent Moisture	D2974			Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	19.6	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-473-01(18-24)-070913

Lab Order: 13070622 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/9/2013 3:55:00 PM

Lab ID: 13070622-009B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 170
 8.7
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-474-01(0-6)-071013

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 10:45:00 AM

Lab ID: 13070622-010A **Matrix:** Soil

Analyses	Result	RL Qu	alifier Units	s DF	Date Analyzed
Mercury	SW74	171A	Р	rep Date: 7/18/	2013 Analyst: LB
Mercury	0.6	0.022	mg/Kg-	dry 1	7/18/2013
Metals by ICP/MS	SW60	020 (SW3050	B) P	rep Date: 7/16/	2013 Analyst: JG
Antimony	ND	5.1	mg/Kg-	dry 20	7/19/2013
Cadmium	3.5	1.3	mg/Kg-	dry 20	7/19/2013
Chromium	34	2.5	mg/Kg-	dry 20	7/19/2013
Copper	130	6.4	mg/Kg-	dry 20	7/19/2013
Lead	2600	1.3	mg/Kg-	dry 20	7/19/2013
Tin	180	13	* mg/Kg-	dry 20	7/19/2013
Zinc	870	13	mg/Kg-	dry 20	7/19/2013
Percent Moisture	D297	4	Р	rep Date: 7/16 /	2013 Analyst: SDA
Percent Moisture	23.9	0.2	* wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-474-01(0-6)-071013

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 10:45:00 AM

Lab ID: 13070622-010B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 2000
 6
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

E - value above quantitation rang

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-474-01(6-18)-071013

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 10:50:00 AM

Lab ID: 13070622-011A **Matrix:** Soil

Analyses	Result	RL Q	Qualifie	r Units	DF I	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	1.2	0.23		mg/Kg-dry	10	7/18/2013
Metals by ICP/MS	SW602	20 (SW305	60B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	5.3		mg/Kg-dry	20	7/19/2013
Cadmium	4.2	1.3		mg/Kg-dry	20	7/19/2013
Chromium	32	2.6		mg/Kg-dry	20	7/19/2013
Copper	170	6.6		mg/Kg-dry	20	7/19/2013
Lead	2300	1.3		mg/Kg-dry	20	7/19/2013
Tin	130	13	*	mg/Kg-dry	20	7/19/2013
Zinc	1200	13		mg/Kg-dry	20	7/19/2013
Percent Moisture	D2974			Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	24.6	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-474-01(6-18)-071013

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 10:50:00 AM

Lab ID: 13070622-011B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 2400
 6.7
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 Print Date: August 02, 2013

Client:

Weston Solutions

Client Sample ID: PA-474-02(0-6)-071013

Lab Order:

13070622

Tag Number:

20 7221

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

....

Collection Date: 7/10/2013 10:55:00 AM

Lab ID:

13070622-012A

Matrix: Soil

Lab ID: 130/0022-012A IVIAUTX: Soil							
Analyses	Resu	lt	RL	Qualifier	Units	DF	Date Analyzed
Mercury	S	W7471	Α		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.79	ナ	0.048		mg/Kg-dry	2	7/18/2013
Metals by ICP/MS	S	W6020	(SW3	050B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	UJ	4.9		mg/Kg-dry	20	7/18/2013
Cadmium	3.1		1.2		mg/Kg-dry	20	7/18/2013
Chromium	26		2.4		mg/Kg-dry	20	7/18/2013
Copper	95		6.1		mg/Kg-dry	20	7/18/2013
Lead	2200		1.2		mg/Kg-dry	20	7/18/2013
Tin	24		12		mg/Kg-dry	20	7/18/2013
Zinc	740		12		mg/Kg-dry	20	7/18/2013
Percent Moisture	D	2974			Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	19.8		0.2		wt%	1	7/17/2013



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-474-02(0-6)-071013

Lab Order: 13070622 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 10:55:00 AM

Lab ID: 13070622-012B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 3300
 4.8
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-475-01(0-6)-071013

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 11:45:00 AM

Lab ID: 13070622-013A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF 1	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.76	0.024		mg/Kg-dry	1	7/18/2013
Metals by ICP/MS	SW60	20 (SW305	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	5		mg/Kg-dry	20	7/19/2013
Cadmium	6.6	1.2		mg/Kg-dry	20	7/19/2013
Chromium	53	2.5		mg/Kg-dry	20	7/19/2013
Copper	160	6.2		mg/Kg-dry	20	7/19/2013
Lead	3700	1.2		mg/Kg-dry	20	7/19/2013
Tin	55	12	*	mg/Kg-dry	20	7/19/2013
Zinc	1700	12		mg/Kg-dry	20	7/19/2013
Percent Moisture	D2974	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	21.7	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-475-01(0-6)-071013

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 11:45:00 AM

Lab ID: 13070622-013B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 3100
 5.1
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-476-01(0-6)-071013

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 2:30:00 PM

Lab ID: 13070622-014A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	r Units	DF 1	Date Analyzed
Mercury	SW74	471A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.92	0.077		mg/Kg-dry	3	7/18/2013
Metals by ICP/MS	SW60	020 (SW305	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	5		mg/Kg-dry	20	7/19/2013
Cadmium	8.5	1.3		mg/Kg-dry	20	7/19/2013
Chromium	34	2.5		mg/Kg-dry	20	7/19/2013
Copper	170	6.3		mg/Kg-dry	20	7/19/2013
Lead	2000	1.3		mg/Kg-dry	20	7/19/2013
Tin	32	13	*	mg/Kg-dry	20	7/19/2013
Zinc	1800	13		mg/Kg-dry	20	7/19/2013
Percent Moisture	D297	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	25.2	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-476-01(0-6)-071013

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 2:30:00 PM

Lab ID: 13070622-014B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1900
 5
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-477-01(0-6)-071013

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 4:00:00 PM

Lab ID: 13070622-015A **Matrix:** Soil

Analyses	Result	RL (Qualifiei	· Units	DF I	Date Analyzed
Mercury	SW74	171A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.69	0.025		mg/Kg-dry	1	7/18/2013
Metals by ICP/MS	SW60)20 (SW305	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	5.1		mg/Kg-dry	20	7/19/2013
Cadmium	4.1	1.3		mg/Kg-dry	20	7/19/2013
Chromium	42	2.5		mg/Kg-dry	20	7/19/2013
Copper	98	6.3		mg/Kg-dry	20	7/19/2013
Lead	1700	1.3		mg/Kg-dry	20	7/19/2013
Tin	26	13	*	mg/Kg-dry	20	7/19/2013
Zinc	720	13		mg/Kg-dry	20	7/19/2013
Percent Moisture	D297	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	22.4	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-477-01(0-6)-071013

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 4:00:00 PM

Lab ID: 13070622-015B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 980
 4.8
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

R - KFD outside accepted recovery mint

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-477-01(6-18)-071013

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 4:05:00 PM

Lab ID: 13070622-016A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	r Units	DF	Date Analyzed
Mercury	SW74	171A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.62	0.022		mg/Kg-dry	1	7/18/2013
Metals by ICP/MS	SW60)20 (SW305	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	5		mg/Kg-dry	20	7/19/2013
Cadmium	4.1	1.2		mg/Kg-dry	20	7/19/2013
Chromium	32	2.5		mg/Kg-dry	20	7/19/2013
Copper	100	6.2		mg/Kg-dry	20	7/19/2013
Lead	1100	1.2		mg/Kg-dry	20	7/19/2013
Tin	24	12	*	mg/Kg-dry	20	7/19/2013
Zinc	810	12		mg/Kg-dry	20	7/19/2013
Percent Moisture	D297	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	19.4	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-477-01(6-18)-071013

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 4:05:00 PM

Lab ID: 13070622-016B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1300
 4.7
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-478-01(0-6)-071013

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 5:25:00 PM

Lab ID: 13070622-017A **Matrix:** Soil

Analyses	Result	RL Qual	ifier Units	DF I	Date Analyzed
Mercury	SW74	71A	Prep	Date: 7/18/2013	Analyst: LB
Mercury	2	0.25	mg/Kg-dry	10	7/18/2013
Metals by ICP/MS	SW60	20 (SW3050B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.3	mg/Kg-dry	20	7/19/2013
Cadmium	17	1.1	mg/Kg-dry	20	7/19/2013
Chromium	220	2.2	mg/Kg-dry	20	7/19/2013
Copper	230	5.4	mg/Kg-dry	20	7/19/2013
Lead	1400	1.1	mg/Kg-dry	20	7/19/2013
Tin	42	11	* mg/Kg-dry	20	7/19/2013
Zinc	1400	11	mg/Kg-dry	20	7/19/2013
Percent Moisture	D2974	ļ.	Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	22.9	0.2	* wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-478-01(0-6)-071013

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 5:25:00 PM

Lab ID: 13070622-017B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1500
 4.8
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-478-01(0-6)-071013D

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 5:30:00 PM

Lab ID: 13070622-018A **Matrix:** Soil

Analyses	Result	RL Qu	alifier Units	DF I	Date Analyzed
Mercury	SW74	71 A	Prep	Date: 7/18/2013	Analyst: LB
Mercury	1.7	0.25	mg/Kg-dry	10	7/18/2013
Metals by ICP/MS	SW60	20 (SW3050	B) Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.9	mg/Kg-dry	20	7/19/2013
Cadmium	19	1.2	mg/Kg-dry	20	7/19/2013
Chromium	190	2.5	mg/Kg-dry	20	7/19/2013
Copper	260	6.2	mg/Kg-dry	20	7/19/2013
Lead	1700	1.2	mg/Kg-dry	20	7/19/2013
Tin	55	12	* mg/Kg-dry	20	7/19/2013
Zinc	1800	12	mg/Kg-dry	20	7/19/2013
Percent Moisture	D2974	ļ	Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	22.4	0.2	* wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-478-01(0-6)-071013D

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/10/2013 5:30:00 PM

Lab ID: 13070622-018B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1500
 4.7
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-479-01(0-6)-071113

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 10:40:00 AM

Lab ID: 13070622-019A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	er Units	DF I	Oate Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.54	0.021		mg/Kg-dry	1	7/18/2013
Metals by ICP/MS	SW60	20 (SW305	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.3		mg/Kg-dry	20	7/19/2013
Cadmium	5.3	1.1		mg/Kg-dry	20	7/19/2013
Chromium	53	2.1		mg/Kg-dry	20	7/19/2013
Copper	140	5.3		mg/Kg-dry	20	7/19/2013
Lead	1200	1.1		mg/Kg-dry	20	7/19/2013
Tin	33	11	*	mg/Kg-dry	20	7/19/2013
Zinc	970	11		mg/Kg-dry	20	7/19/2013
Percent Moisture	D297	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	11.8	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-479-01(0-6)-071113

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 10:40:00 AM

Lab ID: 13070622-019B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1600
 4.7
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 Print Date: August 02, 2013

Client: Weston Solutions **Client Sample ID:** PA-480-01(0-6)-071113

Lab Order: 13070622 Tag Number:

Collection Date: 7/11/2013 10:45:00 AM **Project:** Pilsen Soil Site, Pilsen, Chicago, IL

Lab ID: 13070622-020A Matrix: Soil

Analyses	Result	RL Q	ualifier	Units	DF I	Date Analyzed
Mercury	SW74	471A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.62	0.021		mg/Kg-dry	1	7/18/2013
Metals by ICP/MS	SW60	020 (SW305	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.8		mg/Kg-dry	20	7/19/2013
Cadmium	4.9	1.2		mg/Kg-dry	20	7/19/2013
Chromium	58	2.4		mg/Kg-dry	20	7/19/2013
Copper	180	6		mg/Kg-dry	20	7/19/2013
Lead	3200	1.2		mg/Kg-dry	20	7/19/2013
Tin	37	12	*	mg/Kg-dry	20	7/19/2013
Zinc	1300	12		mg/Kg-dry	20	7/19/2013
Percent Moisture	D297	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	20.4	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-480-01(0-6)-071113

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 10:45:00 AM

Lab ID: 13070622-020B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 3600
 4.7
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-481-01(0-6)-071113

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 11:50:00 AM

Lab ID: 13070622-021A **Matrix:** Soil

Analyses	Result	RL Q	Qualifie	Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	2.1	0.25		mg/Kg-dry	10	7/19/2013
Metals by ICP/MS	SW602	20 (SW305	60B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.5		mg/Kg-dry	20	7/18/2013
Cadmium	5.4	1.1		mg/Kg-dry	20	7/18/2013
Chromium	30	2.3		mg/Kg-dry	20	7/18/2013
Copper	120	5.6		mg/Kg-dry	20	7/18/2013
Lead	1600	1.1		mg/Kg-dry	20	7/18/2013
Tin	36	11	*	mg/Kg-dry	20	7/18/2013
Zinc	1300	11		mg/Kg-dry	20	7/18/2013
Percent Moisture	D2974			Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	20.0	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-481-01(0-6)-071113

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 11:50:00 AM

Lab ID: 13070622-021B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 2000
 4.7
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-482-01(0-6)-071113

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 2:30:00 PM

Lab ID: 13070622-022A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	r Units	DF	Date Analyzed
Mercury	SW7471A			Prep	Analyst: LB	
Mercury	0.094	0.022		mg/Kg-dry	1	7/19/2013
Metals by ICP/MS	SW60)20 (SW3050	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.5		mg/Kg-dry	20	7/18/2013
Cadmium	3.7	1.1		mg/Kg-dry	20	7/18/2013
Chromium	24	2.2		mg/Kg-dry	20	7/18/2013
Copper	66	5.6		mg/Kg-dry	20	7/18/2013
Lead	210	1.1		mg/Kg-dry	20	7/18/2013
Tin	13	11	*	mg/Kg-dry	20	7/18/2013
Zinc	380	11		mg/Kg-dry	20	7/18/2013
Percent Moisture	D297	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	17.3	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-482-01(0-6)-071113

Lab Order: 13070622 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 2:30:00 PM

Lab ID: 13070622-022B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 200
 4.6
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-482-01(6-18)-071113

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 2:35:00 PM

Lab ID: 13070622-023A **Matrix:** Soil

Analyses	Result	RL Ç	Qualifier	Units	DF 1	Date Analyzed
Mercury	SW7471A			Prep Date: 7/18/2013		Analyst: LB
Mercury	0.12	0.019		mg/Kg-dry	1	7/19/2013
Metals by ICP/MS	SW60	20 (SW305	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.4		mg/Kg-dry	20	7/18/2013
Cadmium	5.2	1.1		mg/Kg-dry	20	7/18/2013
Chromium	21	2.2		mg/Kg-dry	20	7/18/2013
Copper	53	5.5		mg/Kg-dry	20	7/18/2013
Lead	250	1.1		mg/Kg-dry	20	7/18/2013
Tin	ND	11	*	mg/Kg-dry	20	7/18/2013
Zinc	300	11		mg/Kg-dry	20	7/18/2013
Percent Moisture	D297	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	15.6	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-482-01(6-18)-071113

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 2:35:00 PM

Lab ID: 13070622-023B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 320
 4.8
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-469-01(6-15)-071113

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 4:50:00 PM

Lab ID: 13070622-024A **Matrix:** Soil

Analyses	Result	RL (Qualifie	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.68	0.021		mg/Kg-dry	1	7/19/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	3.9		mg/Kg-dry	20	7/18/2013
Cadmium	1.1	0.99		mg/Kg-dry	20	7/18/2013
Chromium	20	2		mg/Kg-dry	20	7/18/2013
Copper	93	4.9		mg/Kg-dry	20	7/18/2013
Lead	340	0.99		mg/Kg-dry	20	7/18/2013
Tin	36	9.9	*	mg/Kg-dry	20	7/18/2013
Zinc	270	9.9		mg/Kg-dry	20	7/18/2013
Percent Moisture	D2974	1		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	8.6	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-469-01(6-15)-071113

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 4:50:00 PM

Lab ID: 13070622-024B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 380
 4.8
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Report Date: August 02, 2013

Print Date: August 02, 2013

Client:

Weston Solutions

Client Sample ID: PA-469-02(6-15)-071113

Lab Order:

13070622

Tag Number:

Collection Date: 7/11/2013 4:55:00 PM

Project: Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL 13070622-025A

Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed		
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB		
Mercury	1.2	0.19		mg/Kg-dry	10	7/19/2013		
Metals by ICP/MS	SW60	20 (SW3	050B)	Prep	Date: 7/16/2013	Analyst: JG		
Antimony	4.1 J	3.8	0	mg/Kg-dry	20	7/18/2013		
Cadmium	1.2	0.95		mg/Kg-dry	20	7/18/2013		
Chromium	14	1.9		mg/Kg-dry	20	7/18/2013		
Copper	190	4.7		mg/Kg-dry	20	7/18/2013		
Lead	330	0.95		mg/Kg-dry	20	7/18/2013		
Tin	40	9.5		mg/Kg-dry	20	7/18/2013		
Zinc	250	9.5		mg/Kg-dry	20	7/18/2013		
Percent Moisture	D2974	E.		Prep	Date: 7/16/2013	Analyst: SDA		
Percent Moisture	11.0	0.2		wt%	1	7/17/2013		

2 D 8 | 8 | 13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-469-02(6-15)-071113

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 4:55:00 PM

Lab ID: 13070622-025B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 480
 4.8
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-469-03(6-15)-071113

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 5:00:00 PM

Lab ID: 13070622-026A **Matrix:** Soil

Analyses	Result	RL (Qualifie	er Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.5	0.022		mg/Kg-dry	1	7/19/2013
Metals by ICP/MS	SW60	20 (SW305	60B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.4		mg/Kg-dry	20	7/18/2013
Cadmium	1.1	1.1		mg/Kg-dry	20	7/18/2013
Chromium	15	2.2		mg/Kg-dry	20	7/18/2013
Copper	90	5.5		mg/Kg-dry	20	7/18/2013
Lead	560	1.1		mg/Kg-dry	20	7/18/2013
Tin	24	11	*	mg/Kg-dry	20	7/18/2013
Zinc	270	11		mg/Kg-dry	20	7/18/2013
Percent Moisture	D2974	ļ		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	11.9	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

11 - Holding time exec

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-469-03(6-15)-071113

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 5:00:00 PM

Lab ID: 13070622-026B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 340
 4.8
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-469-03(6-15)-071113D

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 5:05:00 PM

Lab ID: 13070622-027A **Matrix:** Soil

Analyses	Result	RL Q	Qualifie	er Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.57	0.021		mg/Kg-dry	1	7/19/2013
Metals by ICP/MS	SW60	20 (SW305	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.4		mg/Kg-dry	20	7/18/2013
Cadmium	1.2	1.1		mg/Kg-dry	20	7/18/2013
Chromium	16	2.2		mg/Kg-dry	20	7/18/2013
Copper	86	5.5		mg/Kg-dry	20	7/18/2013
Lead	250	1.1		mg/Kg-dry	20	7/18/2013
Tin	26	11	*	mg/Kg-dry	20	7/18/2013
Zinc	290	11		mg/Kg-dry	20	7/18/2013
Percent Moisture	D2974	ļ		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	10.6	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-469-03(6-15)-071113D

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/11/2013 5:05:00 PM

Lab ID: 13070622-027B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 370
 4.8
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-483-01(0-6)-071213

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 9:55:00 AM

Lab ID: 13070622-028A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	r Units	DF	Date Analyzed
Mercury	SW74	171A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.074	0.021		mg/Kg-dry	1	7/19/2013
Metals by ICP/MS	SW60)20 (SW305	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.1		mg/Kg-dry	20	7/18/2013
Cadmium	1.2	1		mg/Kg-dry	20	7/18/2013
Chromium	17	2		mg/Kg-dry	20	7/18/2013
Copper	35	5.1		mg/Kg-dry	20	7/18/2013
Lead	200	1		mg/Kg-dry	20	7/18/2013
Tin	ND	10	*	mg/Kg-dry	20	7/18/2013
Zinc	180	10		mg/Kg-dry	20	7/18/2013
Percent Moisture	D297	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	9.7	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-483-01(0-6)-071213

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 9:55:00 AM

Lab ID: 13070622-028B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 320
 5
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-483-01(6-24)-071213

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 10:00:00 AM

Lab ID: 13070622-029A **Matrix:** Soil

Analyses	Result	RL (Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.061	0.02		mg/Kg-dry	1	7/19/2013
Metals by ICP/MS	SW602	20 (SW305	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4		mg/Kg-dry	20	7/18/2013
Cadmium	ND	1		mg/Kg-dry	20	7/18/2013
Chromium	11	2		mg/Kg-dry	20	7/18/2013
Copper	17	5		mg/Kg-dry	20	7/18/2013
Lead	140	1		mg/Kg-dry	20	7/18/2013
Tin	ND	10	*	mg/Kg-dry	20	7/18/2013
Zinc	120	10		mg/Kg-dry	20	7/18/2013
Percent Moisture	D2974			Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	6.6	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-483-01(6-24)-071213

Lab Order: 13070622 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 10:00:00 AM

Lab ID: 13070622-029B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 220
 4.8
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

•

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013

Print Date: August 02, 2013

Client:

Weston Solutions

13070622-030A

Client Sample ID: PA-484-01(0-6)-071213

Lab Order:

13070622

Tag Number:

Collection Date: 7/12/2013 11:40:00 AM

Project: Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Later Marie Court						
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst; LB
Mercury	4.6	0.23		mg/Kg-dry	10	7/19/2013
Metals by ICP/MS	SW602	20 (SW3	050B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	5.4 J	4.8		mg/Kg-dry	20	7/18/2013
Cadmium	75	1.2		mg/Kg-dry	20	7/18/2013
Chromium	770	2.4		mg/Kg-dry	20	7/18/2013
Copper	740	6		mg/Kg-dry	20	7/18/2013
Lead	1700	1.2		mg/Kg-dry	20	7/18/2013
Tin	110	12	*	mg/Kg-dry	20	7/18/2013
Zinc	2300	12		mg/Kg-dry	20	7/18/2013
Percent Moisture	D2974			Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	20.3	0.2		wt%	1	7/17/2013

28/8/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-484-01(0-6)-071213

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 11:40:00 AM

Lab ID: 13070622-030B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 2500
 5
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013

Print Date: August 02, 2013

Client:

Weston Solutions

Client Sample ID: PA-484-01(6-18)-071213

Lab Order:

13070622

Tag Number:

Collection Date: 7/12/2013 11:45:00 AM

Project: Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL 13070622-031A

Matrix: Soil

13070022-031A	Tratera. Son					
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	SW747	1A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	1.6	0.21		mg/Kg-dry	10	7/19/2013
Metals by ICP/MS	SW602	0 (SW3	050B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	9.9 J	4.5	teresterati	mg/Kg-dry	20	7/18/2013
Cadmium	215	1.1		mg/Kg-dry	20	7/18/2013
Chromium	91	2.3		mg/Kg-dry	20	7/19/2013
Copper	580	5.7		mg/Kg-dry	20	7/19/2013
Lead	4300	1.1		mg/Kg-dry	20	7/18/2013
Tin .	180	11		mg/Kg-dry	20	7/18/2013
Zinc	3700	110		mg/Kg-dry	200	7/18/2013
Percent Moisture	D2974			Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	15.8	0.2	0.00	wt%	1	7/17/2013

28/8/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-484-01(6-18)-071213

Lab Order: 13070622 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 11:45:00 AM

Lab ID: 13070622-031B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 5500
 4.7
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-485-01(0-6)-071213

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 1:30:00 PM

Lab ID: 13070622-032A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.29	0.022		mg/Kg-dry	1	7/19/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.8		mg/Kg-dry	20	7/18/2013
Cadmium	1.8	1.2		mg/Kg-dry	20	7/18/2013
Chromium	21	2.4		mg/Kg-dry	20	7/18/2013
Copper	100	6		mg/Kg-dry	20	7/18/2013
Lead	510	1.2		mg/Kg-dry	20	7/18/2013
Tin	ND	12	*	mg/Kg-dry	20	7/18/2013
Zinc	390	12		mg/Kg-dry	20	7/18/2013
Percent Moisture	D297	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	20.2	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-485-01(0-6)-071213

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 1:30:00 PM

Lab ID: 13070622-032B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 650
 4.7
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-486-01(0-6)-071213

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 2:40:00 PM

Lab ID: 13070622-033A **Matrix:** Soil

Analyses	Result	RL Q	ualifier	Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.37	0.023		mg/Kg-dry	1	7/19/2013
Metals by ICP/MS	SW60	20 (SW305	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.7		mg/Kg-dry	20	7/18/2013
Cadmium	4.4	1.2		mg/Kg-dry	20	7/18/2013
Chromium	32	2.4		mg/Kg-dry	20	7/18/2013
Copper	130	5.9		mg/Kg-dry	20	7/18/2013
Lead	880	1.2		mg/Kg-dry	20	7/18/2013
Tin	26	12	*	mg/Kg-dry	20	7/18/2013
Zinc	840	12		mg/Kg-dry	20	7/18/2013
Percent Moisture	D2974	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	24.4	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-486-01(0-6)-071213

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 2:40:00 PM

Lab ID: 13070622-033B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1100
 5.4
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-486-01(6-24)-071213

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 2:45:00 PM

Lab ID: 13070622-034A **Matrix:** Soil

Analyses	Result	RL Q	ualifier	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.59	0.025		mg/Kg-dry	1	7/19/2013
Metals by ICP/MS	SW60)20 (SW305	0B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	5.2		mg/Kg-dry	20	7/18/2013
Cadmium	5.3	1.3		mg/Kg-dry	20	7/18/2013
Chromium	31	2.6		mg/Kg-dry	20	7/18/2013
Copper	160	6.5		mg/Kg-dry	20	7/18/2013
Lead	1100	1.3		mg/Kg-dry	20	7/18/2013
Tin	33	13	*	mg/Kg-dry	20	7/18/2013
Zinc	1000	13		mg/Kg-dry	20	7/18/2013
Percent Moisture	D297	4		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	27.4	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-486-01(6-24)-071213

Lab Order: 13070622 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 2:45:00 PM

Lab ID: 13070622-034B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1200
 11
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-48601(6-24)-071213D

Lab Order: 13070622 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 2:50:00 PM

Lab ID: 13070622-035A **Matrix:** Soil

Analyses	Result	RL Ç	Qualifier	Units	DF I	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/18/2013	Analyst: LB
Mercury	0.4	0.022		mg/Kg-dry	1	7/19/2013
Metals by ICP/MS	SW60	20 (SW305	60B)	Prep	Date: 7/16/2013	Analyst: JG
Antimony	ND	4.5		mg/Kg-dry	20	7/18/2013
Cadmium	5.2	1.1		mg/Kg-dry	20	7/18/2013
Chromium	28	2.3		mg/Kg-dry	20	7/18/2013
Copper	160	5.6		mg/Kg-dry	20	7/18/2013
Lead	960	1.1		mg/Kg-dry	20	7/18/2013
Tin	29	11	*	mg/Kg-dry	20	7/18/2013
Zinc	1000	11		mg/Kg-dry	20	7/18/2013
Percent Moisture	D2974	1		Prep	Date: 7/16/2013	Analyst: SDA
Percent Moisture	25.8	0.2	*	wt%	1	7/17/2013

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 02, 2013 **Print Date:** August 02, 2013

Client: Weston Solutions Client Sample ID: PA-48601(6-24)-071213D

Lab Order: 13070622 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/12/2013 2:50:00 PM

Lab ID: 13070622-035B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 7/25/2013
 Analyst: JG

 Lead
 1100
 9.5
 mg/Kg-dry
 100
 7/25/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

PILSEN AREA SOIL SITE CHICAGO, ILLINOIS DATA VALIDATION REPORT

Date: August 8, 2013

Laboratory: STAT Analysis Corporation (STAT), Chicago, Illinois

Laboratory Project #: 13070839

Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund

Technical Assessment and Response Team (START)

Analytical TDD and Work Order #: S05-0001-1211-003/20405.016.001.2038.00

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for 11 soil samples collected for the Pilsen Area Soil Site that were analyzed for the following parameters and U.S. Environmental Protection Agency methods:

- Total Metals by SW-846 Methods 6020 and 7471A
- Fine Grained Lead by SW-846 Method 6020
- Moisture Content by ASTM D2974

A level II data package was requested from STAT. The data validation was conducted in general accordance with the EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

TOTAL METALS AND FINE GRAINED LEAD BY EPA SW-846 METHODS 6020 AND 7471A

1. <u>Samples</u>

Attachment A summarizes the samples for which this data validation is being conducted. It includes the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. <u>Holding Times</u>

The samples were analyzed within the required holding time limit of 28 days for mercury and 180 days from sample collection to analysis for all other metals.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13070839

3. Blank Results

Method blanks were analyzed with the metals analyses. The blanks contained no metals contamination above the reporting limits. There were detections of some metals below the reporting limits in the blanks. However, the sample results were much greater or contained no detections of these metals. No qualifications were required.

4. <u>Laboratory Control Sample (LCS) Results</u>

The LCS recoveries were within the quality control (QC) limits except for as follows.

In one LCS, antimony was detected high. Detected antimony results were flagged "J" as estimated.

5. Matrix Spike (MS) and MS Duplicate (MSD) Results

STAT analyzed several site-specific MS/MSDs. The percent recoveries and relative percent differences (RPD) were within QC limits except for as follows.

In many instances of QC limits not being met, the sample concentration was more than four times the spike amount. In these instances, no qualifications were required.

In the MS and MSD of sample PA-127-01(6-21)-0711613, antimony had a low recovery. In this sample, the quantitation limit was flagged "UJ" as estimated.

6. Field Duplicate Results

There is one field duplicate sample associated with this work order that is identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. There is no established QC limit for RPD for field duplicates; however, 50 RPD is generally used for evaluation. Most of the RPDs for detected metals were below 50 which is acceptable.

The exceptions were cadmium and lead in field duplicate PA-122-01(18-24)-071513D which had RPDs of 54 and 61, respectively. These two higher RPDs indicate minor sample heterogeneity. However, in general the field duplicate results agreed well with the investigative sample results.

7. Overall Assessment

The metals data are acceptable for use as qualified based on the information received.

GENERAL CHEMISTRY PARAMETER (Moisture Content by ASTM D2974)

1. Samples

Attachment A summarizes the samples for which this data validation is being conducted. It includes the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. Holding Times

The holding time for moisture is 28 days. The holding time for moisture was met.

3. Blank Results

Method blanks were analyzed with the moisture analyses and were all non-detect for moisture which is acceptable.

4. LCS Results

LCSs were analyzed with the moisture analyses. The LCS recoveries were within the QC limits.

5. Laboratory Duplicates

Laboratory duplicates were analyzed with the moisture analyses. The RPDs were within QC limits.

6. <u>Field Duplicate Results</u>

There are three field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. The RPDs were below 50 which is acceptable.

7. Overall Assessment

The moisture data are acceptable for use based on the information received.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13070839

ATTACHMENT A SAMPLE LIST

Date: August 01, 2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL Work Order Sample Summary

Lab Order: 13070839

eived

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13070839

ATTACHMENT B

STAT ANALYSIS CORPORATION RESULTS SUMMARY WITH QUALIFIERS

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202-

> Report Date: August 01, 2013 Print Date: August 01, 2013

Client:

Weston Solutions

Client Sample ID:

PA-276-01(6-18)-071513

Lab Order:

13070839

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date: 7/15/2013 10:00:00 AM

Lab ID:

13070839-001A

Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/22/2013	Analyst: LB
Mercury	0.72	0.022		mg/Kg-dry	1	7/22/2013
Metals by ICP/MS	SW60	20 (SW3	050B)	Prep	Date: 7/26/2013	Analyst: JG
Antimony	6.6	5.2		mg/Kg-dry	20	7/26/2013
Cadmium	13	1.3		mg/Kg-dry	20	7/26/2013
Chromium	ND	26		mg/Kg-dry	200	7/26/2013
Copper	1100	6.6		mg/Kg-dry	20	7/26/2013
Lead	1700	1.3		mg/Kg-dry	20	7/26/2013
Tin	130	13	•	mg/Kg-dry	20	7/26/2013
Zinc	4700	130		mg/Kg-dry	200	7/26/2013
Percent Moisture	D2974	ı		Prep	Date: 7/22/2013	Analyst: RW
Percent Moisture	24.0	0.2		wt%	1	7/23/2013

18/8/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-276-01(6-18)-071513

Lab Order: 13070839 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/15/2013 10:00:00 AM

Lab ID: 13070839-001B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/1/2013
 Analyst: JG

 Lead
 2000
 4.9
 mg/Kg-dry
 100
 8/1/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013

Print Date: August 01, 2013

Client:

Weston Solutions

Client Sample ID: PA-276-01(18-24)-071513

Lab Order:

13070839

Tag Number:

Collection Date: 7/15/2013 10:05:00 AM

Project: Lab ID:

Pilsen Soil Site, Pilsen, Chicago, IL

Matrix: Soil

Lab ID:	13070839-002A	Matrix: Soil						
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed	
Mercury		SW74	71A		Prep	Date: 7/22/2013	Analyst: LB	
Mercury		0.33	0.026		mg/Kg-dry	1	7/22/2013	
Metals by ICP/MS		SW60	20 (SW3	050B)	Prep	Date: 7/26/2013	Analyst: JG	
Antimony		5.5 J	4.9		mg/Kg-dry	20	7/26/2013	
Cadmium		4.3	1.2		mg/Kg-dry	20	7/26/2013	
Chromium		ND	24		mg/Kg-dry	200	7/26/2013	
Copper		370	6.1		mg/Kg-dry	20	7/26/2013	
Lead		550	1.2		mg/Kg-dry	20	7/26/2013	
Tin		440	12	**	mg/Kg-dry	20	7/26/2013	
Zinc		1600	120		mg/Kg-dry	200	7/26/2013	
Percent Moisture		D2974			Prep	Date: 7/22/2013	Analyst: RW	
Percent Moisture		23.3	0.2		wt%	1	7/23/2013	



Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-276-01(18-24)-071513

Lab Order: 13070839 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/15/2013 10:05:00 AM

Lab ID: 13070839-002B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/1/2013
 Analyst: JG

 Lead
 480
 5.3
 mg/Kg-dry
 100
 8/1/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-487-01(0-6)-071513

Lab Order: 13070839 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/15/2013 11:50:00 AM

Lab ID: 13070839-003A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF 1	Date Analyzed
Mercury	SW74	71A		Prep	Date: 7/22/2013	Analyst: LB
Mercury	0.58	0.022		mg/Kg-dry	1	7/22/2013
Metals by ICP/MS	SW60	20 (SW305	50B)	Prep	Date: 7/26/2013	Analyst: JG
Antimony	ND	5		mg/Kg-dry	20	7/26/2013
Cadmium	3.1	1.3		mg/Kg-dry	20	7/26/2013
Chromium	ND	25		mg/Kg-dry	200	7/26/2013
Copper	140	6.3		mg/Kg-dry	20	7/26/2013
Lead	1400	1.3		mg/Kg-dry	20	7/26/2013
Tin	65	13	*	mg/Kg-dry	20	7/26/2013
Zinc	600	130		mg/Kg-dry	200	7/26/2013
Percent Moisture	D2974	4		Prep	Date: 7/22/2013	Analyst: RW
Percent Moisture	25.1	0.2	*	wt%	1	7/23/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-487-01(0-6)-071513

Lab Order: 13070839 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/15/2013 11:50:00 AM

Lab ID: 13070839-003B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/1/2013
 Analyst: JG

 Lead
 770
 4.7
 mg/Kg-dry
 100
 8/1/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-488-01(0-6)-071513

Lab Order: 13070839 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/15/2013 2:00:00 PM

Lab ID: 13070839-004A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	SW7471A			Prep	Analyst: LB	
Mercury	0.27	0.02		mg/Kg-dry	1	7/22/2013
Metals by ICP/MS	SW602	20 (SW3	050B)	Prep	Date: 7/26/2013	Analyst: JG
Antimony	ND	4.7		mg/Kg-dry	20	7/26/2013
Cadmium	1.7	1.2		mg/Kg-dry	20	7/26/2013
Chromium	ND	24		mg/Kg-dry	200	7/26/2013
Copper	56	5.9		mg/Kg-dry	20	7/26/2013
Lead	410	1.2		mg/Kg-dry	20	7/26/2013
Tin	17	12	*	mg/Kg-dry	20	7/26/2013
Zinc	390	120		mg/Kg-dry	200	7/26/2013
Percent Moisture	D2974			Prep	Date: 7/22/2013	Analyst: RW
Percent Moisture	15.2	0.2	*	wt%	1	7/23/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

ii - Holding time exec

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-488-01(0-6)-071513

Lab Order: 13070839 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/15/2013 2:00:00 PM

Lab ID: 13070839-004B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/1/2013
 Analyst: JG

 Lead
 790
 4.8
 mg/Kg-dry
 100
 8/1/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-122-01(6-18)-071513

Lab Order: 13070839 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/15/2013 3:25:00 PM

Lab ID: 13070839-005A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	r Units	DF 1	Date Analyzed
Mercury	SW7471A		Prep Date: 7/22/2013		Analyst: LB	
Mercury	1.4	0.13		mg/Kg-dry	5	7/22/2013
Metals by ICP/MS	SW602	20 (SW3050	0B)	Prep	Date: 7/26/2013	Analyst: JG
Antimony	ND	4.9		mg/Kg-dry	20	7/26/2013
Cadmium	9.2	1.2		mg/Kg-dry	20	7/26/2013
Chromium	ND	25		mg/Kg-dry	200	7/26/2013
Copper	590	6.2		mg/Kg-dry	20	7/26/2013
Lead	1900	1.2		mg/Kg-dry	20	7/26/2013
Tin	130	12	*	mg/Kg-dry	20	7/26/2013
Zinc	2600	120		mg/Kg-dry	200	7/26/2013
Percent Moisture	D2974	ļ		Prep	Date: 7/22/2013	Analyst: RW
Percent Moisture	24.2	0.2	*	wt%	1	7/23/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-122-01(6-18)-071513

Lab Order: 13070839 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/15/2013 3:25:00 PM

Lab ID: 13070839-005B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/1/2013
 Analyst: JG

 Lead
 1600
 4.8
 mg/Kg-dry
 100
 8/1/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-122-01(18-24)-071513

Lab Order: 13070839 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/15/2013 3:30:00 PM

Lab ID: 13070839-006A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF 1	Date Analyzed
Mercury	SW7471A			Prep	Analyst: LB	
Mercury	1.3	0.24		mg/Kg-dry	10	7/22/2013
Metals by ICP/MS	SW602	20 (SW30)50B)	Prep	Date: 7/26/2013	Analyst: JG
Antimony	ND	5		mg/Kg-dry	20	7/26/2013
Cadmium	2.6	1.2		mg/Kg-dry	20	7/26/2013
Chromium	ND	25		mg/Kg-dry	200	7/26/2013
Copper	110	6.2		mg/Kg-dry	20	7/26/2013
Lead	470	1.2		mg/Kg-dry	20	7/26/2013
Tin	32	12	*	mg/Kg-dry	20	7/26/2013
Zinc	710	120		mg/Kg-dry	200	7/26/2013
Percent Moisture	D2974			Prep Date: 7/22/2013		Analyst: RW
Percent Moisture	20.4	0.2	*	wt%	1	7/23/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-122-01(18-24)-071513

Lab Order: 13070839 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/15/2013 3:30:00 PM

Lab ID: 13070839-006B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/1/2013
 Analyst: JG

 Lead
 420
 6.9
 mg/Kg-dry
 100
 8/1/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions **Client Sample ID:** PA-122-01(18-24)-071513D

Lab Order: 13070839 Tag Number:

Collection Date: 7/15/2013 3:35:00 PM **Project:** Pilsen Soil Site, Pilsen, Chicago, IL

Lab ID: 13070839-007A Matrix:

Analyses	Result	RL	Qualifier	Units	DF 1	Date Analyzed
Mercury	SW7471A			Prep Date: 7/22/2013		Analyst: LB
Mercury	0.86	0.1		mg/Kg-dry	5	7/22/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 7/26/2013	Analyst: JG
Antimony	ND	4.6		mg/Kg-dry	20	7/26/2013
Cadmium	1.5	1.1		mg/Kg-dry	20	7/26/2013
Chromium	ND	23		mg/Kg-dry	200	7/26/2013
Copper	75	5.7		mg/Kg-dry	20	7/26/2013
Lead	250	1.1		mg/Kg-dry	20	7/26/2013
Tin	22	11	*	mg/Kg-dry	20	7/26/2013
Zinc	430	110		mg/Kg-dry	200	7/26/2013
Percent Moisture	D2974			Prep	Date: 7/22/2013	Analyst: RW
Percent Moisture	19.9	0.2	*	wt%	1	7/23/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-122-01(18-24)-071513D

Lab Order: 13070839 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/15/2013 3:35:00 PM

Lab ID: 13070839-007B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/1/2013
 Analyst: JG

 Lead
 440
 5.3
 mg/Kg-dry
 100
 8/1/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-104-01(6-12)-071613

Lab Order: 13070839 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/16/2013 9:00:00 AM

Lab ID: 13070839-008A **Matrix:** Soil

Analyses	Result	RL (Qualifie	r Units	DF I	Date Analyzed
Mercury	SW747	71A		Prep	Date: 7/22/2013	Analyst: LB
Mercury	0.9	0.1		mg/Kg-dry	5	7/22/2013
Metals by ICP/MS	SW602	20 (SW305	50B)	Prep	Date: 7/26/2013	Analyst: JG
Antimony	ND	4.6		mg/Kg-dry	20	7/26/2013
Cadmium	5.8	1.1		mg/Kg-dry	20	7/26/2013
Chromium	ND	23		mg/Kg-dry	200	7/26/2013
Copper	190	5.7		mg/Kg-dry	20	7/26/2013
Lead	1200	1.1		mg/Kg-dry	20	7/26/2013
Tin	68	11	*	mg/Kg-dry	20	7/26/2013
Zinc	1100	110		mg/Kg-dry	200	7/26/2013
Percent Moisture	D2974			Prep	Date: 7/22/2013	Analyst: RW
Percent Moisture	18.1	0.2	*	wt%	1	7/23/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

ii - Holding time exec

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-104-01(6-12)-071613

Lab Order: 13070839 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/16/2013 9:00:00 AM

Lab ID: 13070839-008B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/1/2013
 Analyst: JG

 Lead
 890
 4.8
 mg/Kg-dry
 100
 8/1/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-104-01(12-24)-071613

Lab Order: 13070839 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/16/2013 9:05:00 AM

Lab ID: 13070839-009A **Matrix:** Soil

Analyses	Result	RL Q	ualifier (U nits	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 7/22/2013	Analyst: LB
Mercury	0.31	0.019	mg	/Kg-dry	1	7/22/2013
Metals by ICP/MS	SW60)20 (SW3050)B)	Prep	Date: 7/26/2013	Analyst: JG
Antimony	ND	4.7	mg	/Kg-dry	20	7/26/2013
Cadmium	4.9	1.2	mg	/Kg-dry	20	7/26/2013
Chromium	ND	24	mg	/Kg-dry	200	7/26/2013
Copper	67	5.9	mg	/Kg-dry	20	7/26/2013
Lead	500	1.2	mg	/Kg-dry	20	7/26/2013
Tin	17	12	* mg	/Kg-dry	20	7/26/2013
Zinc	630	120	mg	/Kg-dry	200	7/26/2013
Percent Moisture	D297	4		Prep	Date: 7/22/2013	Analyst: RW
Percent Moisture	16.7	0.2	*	wt%	1	7/23/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions **Client Sample ID:** PA-104-01(12-24)-071613

Lab Order: 13070839 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL **Collection Date:** 7/16/2013 9:05:00 AM

Lab ID: 13070839-009B Matrix: Soil

Analyses Result RLQualifier Units DF **Date Analyzed**

Metals by ICP/MS SW6020 (SW3050B) Prep Date: 8/1/2013 Analyst: JG 6.6 8/1/2013 Lead 470 mg/Kg-dry 100

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-349-03(6-14)-071613

Lab Order: 13070839 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/16/2013 10:10:00 AM

Lab ID: 13070839-010A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 7/22/2013	Analyst: LB
Mercury	0.31	0.017		mg/Kg-dry	1	7/22/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 7/26/2013	Analyst: JG
Antimony	ND	4.1		mg/Kg-dry	20	7/26/2013
Cadmium	2	1		mg/Kg-dry	20	7/26/2013
Chromium	ND	20		mg/Kg-dry	200	7/26/2013
Copper	63	5.1		mg/Kg-dry	20	7/26/2013
Lead	680	1		mg/Kg-dry	20	7/26/2013
Tin	14	10	*	mg/Kg-dry	20	7/26/2013
Zinc	390	100		mg/Kg-dry	200	7/26/2013
Percent Moisture	D297	4		Prep	Date: 7/22/2013	Analyst: RW
Percent Moisture	8.6	0.2	*	wt%	1	7/23/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-349-03(6-14)-071613

Lab Order: 13070839 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/16/2013 10:10:00 AM

Lab ID: 13070839-010B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/1/2013
 Analyst: JG

 Lead
 990
 4.8
 mg/Kg-dry
 100
 8/1/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Report Date: August 01, 2013

Print Date: August 01, 2013

Client:

Weston Solutions

Client Sample ID: PA-127-01(6-21)-071613

Lab Order:

13070839

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date: 7/16/2013 2:30:00 PM

Lab ID:

13070839-011A

Matrix: Soil

Lau ID: 13070039-011A	Matrix. Son						
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed	
Mercury	SW74	71A		Prep	Date: 7/22/2013	Analyst: LB	
Mercury	2.6	0.24		mg/Kg-dry	10	7/22/2013	
Metals by ICP/MS	SW60	20 (SW:	3050B)	Prep	Date: 7/26/2013	Analyst: JG	
Antimony	ND	4.4	UJ	mg/Kg-dry	20	7/26/2013	
Cadmium	7.9	1.1		mg/Kg-dry	20	7/26/2013	(0)
Chromium	21	2.2		mg/Kg-dry	20	7/26/2013	
Copper	420	5.5		mg/Kg-dry	20	7/26/2013	
Lead	2500	1.1		mg/Kg-dry	20	7/26/2013	
Tin	67	11		mg/Kg-dry	20	7/26/2013	
Zinc	2700	110		mg/Kg-dry	200	7/26/2013	
Percent Moisture	D2974	4		Prep	Date: 7/22/2013	Analyst: RW	
Percent Moisture	16.3	0.2	3.00 L	wt%	1	7/23/2013	

18 8|8|13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 01, 2013 **Print Date:** August 01, 2013

Client: Weston Solutions Client Sample ID: PA-127-01(6-21)-071613

Lab Order: 13070839 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 7/16/2013 2:30:00 PM

Lab ID: 13070839-011B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/1/2013
 Analyst: JG

 Lead
 4200
 4.9
 mg/Kg-dry
 100
 8/1/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

PILSEN AREA SOIL SITE CHICAGO, ILLINOIS DATA VALIDATION REPORT

Date: September 4, 2013

Laboratory: STAT Analysis Corporation (STAT), Chicago, Illinois

Laboratory Project #: 13080639

Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund

Technical Assessment and Response Team (START)

Analytical TDD and Work Order #: S05-0001-1211-003/20405.016.001.2038.00

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for 43 soil samples collected for the Pilsen Area Soil Site that were analyzed for the following parameters and U.S. Environmental Protection Agency methods:

- Total Metals by SW-846 Methods 6020 and 7471A
- Fine Grained Lead by SW-846 Method 6020
- Moisture Content by ASTM D2974

A level II data package was requested from STAT. The data validation was conducted in general accordance with the EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

TOTAL METALS AND FINE GRAINED LEAD BY EPA SW-846 METHODS 6020 AND 7471A

1. <u>Samples</u>

Attachment A summarizes the samples for which this data validation is being conducted. It includes the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. <u>Holding Times</u>

The samples were analyzed within the required holding time limit of 28 days for mercury and 180 days from sample collection to analysis for all other metals.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13070839

3. Blank Results

Method blanks were analyzed with the metals analyses. The blanks contained no metals contamination above the reporting limits. There were detections of metals below the reporting limits in the blanks. However, the sample results were much greater or contained no detections of these metals. No qualifications were required.

4. <u>Laboratory Control Sample (LCS) Results</u>

The LCS recoveries were within the quality control (QC) limits except for as follows.

In one LCS, antimony was detected high. Detected antimony results were flagged "J" as estimated.

5. Matrix Spike (MS) and MS Duplicate (MSD) Results

STAT analyzed several site-specific MS/MSDs. The percent recoveries and relative percent differences (RPD) were within QC limits except for as follows.

In many instances of QC limits not being met, the sample concentration was more than four times the spike amount. In these instances, no qualifications were required.

In the MS and/or MSD of sample PA-499-01(0-6)-081413, antimony, tin, and mercury had low recoveries. In this sample, the mercury and tin results were flagged "J" and the quantitation limit for antimony was flagged "UJ" as estimated due to potential matrix interference.

In the MS and MSD of sample PA-515-01(0-6)-081613, antimony and mercury had low recoveries and tin had a high recovery. In this sample, the antimony, mercury and tin results were flagged "J" as estimated due to potential matrix interference.

In the MS and MSD of sample PA-516-01(6-18)-081613, antimony had a low recovery and tin had a high recovery. In this sample, the quantitation limit for antimony was flagged "UJ" as estimated due to potential matrix interference. Note that tin did not required qualification because it was not detected in the sample and the high MS/MSD recoveries indicate a high bias.

6. Field Duplicate Results

There are five field duplicate samples associated with this work order that is identified by a "D" suffix in the sample name.

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. There is no established QC limit for RPD for field duplicates;

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation

Laboratory Project #: 13070839

however, 50 RPD is generally used for evaluation. Most of the RPDs for detected metals were below 50 which is acceptable.

There were only two instances where the RPD exceeded 50; chromium in sample PA-491-01(6-18)-081213D and mercury in sample PA-516-01(0-6)-081613D. These two discrepancies are minor and in general the field duplicate results agreed well with the investigative sample results.

7. Overall Assessment

The metals data are acceptable for use as qualified based on the information received.

GENERAL CHEMISTRY PARAMETER (Moisture Content by ASTM D2974)

1. <u>Samples</u>

Attachment A summarizes the samples for which this data validation is being conducted. It includes the laboratory sample identification, the WESTON START sample identification, and the date and time of sample collection.

2. Holding Times

The holding time for moisture is 28 days. The holding time for moisture was met.

3. Blank Results

Method blanks were analyzed with the moisture analyses and were all non-detect for moisture which is acceptable.

4. <u>LCS Results</u>

LCSs were analyzed with the moisture analyses. The LCS recoveries were within the QC limits.

5. Laboratory Duplicates

Laboratory duplicates were analyzed with the moisture analyses. The RPDs were within QC limits.

6. Field Duplicate Results

There are five field duplicate samples associated with this work order that are identified by a "D" suffix in the sample name.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13070839

The field duplicate results were evaluated by calculating the RPDs between the investigative and field duplicate sample results. The RPDs were below 50 which is acceptable.

7. Overall Assessment

The moisture data are acceptable for use based on the information received.

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13070839

ATTACHMENT A SAMPLE LIST

Date: August 26, 2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL Work Order Sample Summary

Lab Order: 13080639

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13080639-001A	PA-489-01(0-6)-081213		8/12/2013 2:40:00 PM	8/17/2013
13080639-001B	PA-489-01(0-6)-081213	Fine Grained	8/12/2013 2:40:00 PM	8/17/2013
13080639-002A	PA-489-01(6-18)-081213		8/12/2013 2:45:00 PM	8/17/2013
13080639-002B	PA-489-01(6-18)-081213	Fine Grained	8/12/2013 2:45:00 PM	8/17/2013
13080639-003A	PA-490-01(0-6)-081213		8/12/2013 3:30:00 PM	8/17/2013
13080639-003B	PA-490-01(0-6)-081213	Fine Grained	8/12/2013 3:30:00 PM	8/17/2013
13080639-004A	PA-491-01(0-6)-081213		8/12/2013 4:20:00 PM	8/17/2013
13080639-004B	PA-491-01(0-6)-081213	Fine Grained	8/12/2013 4:20:00 PM	8/17/2013
13080639-005A	PA-491-01(6-18)-081213		8/12/2013 4:25:00 PM	8/17/2013
13080639-005B	PA-491-01(6-18)-081213	Fine Grained	8/12/2013 4:25:00 PM	8/17/2013
13080639-006A	PA-491-01(6-18)-081213D		8/12/2013 4:30:00 PM	8/17/2013
13080639-006B	PA-491-01(6-18)-081213D	Fine Grained	8/12/2013 4:30:00 PM	8/17/2013
13080639-007A	PA-492-01(0-6)-081313		8/13/2013 10:00:00 AM	8/17/2013
13080639-007B	PA-492-01(0-6)-081313	Fine Grained	8/13/2013 10:00:00 AM	8/17/2013
13080639-008A	PA-493-01(0-6)-081313		8/13/2013 10:45:00 AM	8/17/2013
13080639-008B	PA-493-01(0-6)-081313	Fine Grained	8/13/2013 10:45:00 AM	8/17/2013
13080639-009A	PA-494-01(0-6)-081313		8/13/2013 12:00:00 PM	8/17/2013
13080639-009B	PA-494-01(0-6)-081313	Fine Grained	8/13/2013 12:00:00 PM	8/17/2013
13080639-010A	PA-495-01(0-6)-081313		8/13/2013 2:00:00 PM	8/17/2013
13080639-010B	PA-495-01(0-6)-081313	Fine Grained	8/13/2013 2:00:00 PM	8/17/2013
13080639-011A	PA-495-01(6-24)-081313		8/13/2013 2:05:00 PM	8/17/2013
13080639-011B	PA-495-01(6-24)-081313	Fine Grained	8/13/2013 2:05:00 PM	8/17/2013
13080639-012A	PA-496-01(0-6)-081313		8/13/2013 3:00:00 PM	8/17/2013
13080639-012B	PA-496-01(0-6)-081313	Fine Grained	8/13/2013 3:00:00 PM	8/17/2013
13080639-013A	PA-497-01(0-6)-081313		8/13/2013 3:50:00 PM	8/17/2013
13080639-013B	PA-497-01(0-6)-081313	Fine Grained	8/13/2013 3:50:00 PM	8/17/2013
13080639-014A	PA-498-01(0-6)-081313		8/13/2013 4:50:00 PM	8/17/2013
13080639-014B	PA-498-01(0-6)-081313	Fine Grained	8/13/2013 4:50:00 PM	8/17/2013
13080639-015A	PA-498-01(0-6)-081313D		8/13/2013 4:55:00 PM	8/17/2013
13080639-015B	PA-498-01(0-6)-081313D	Fine Grained	8/13/2013 4:55:00 PM	8/17/2013
13080639-016A	PA-498-01(6-15)-081313		8/13/2013 5:00:00 PM	8/17/2013
13080639-016B	PA-498-01(6-15)-081313	Fine Grained	8/13/2013 5:00:00 PM	8/17/2013
13080639-017A	PA-499-01(0-6)-081413		8/14/2013 9:45:00 AM	8/17/2013
13080639-017B	PA-499-01(0-6)-081413	Fine Grained	8/14/2013 9:45:00 AM	8/17/2013
13080639-018A	PA-500-01(0-6)-081413		8/14/2013 11:00:00 AM	8/17/2013
13080639-018B	PA-500-01(0-6)-081413	Fine Grained	8/14/2013 11:00:00 AM	8/17/2013
13080639-019A	PA-500-01(6-24)-081413		8/14/2013 11:05:00 AM	8/17/2013
13080639-019B	PA-500-01(6-24)-081413	Fine Grained	8/14/2013 11:05:00 AM	8/17/2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL

Lab Order: 13080639

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13080639-020A	PA-501-01(0-6)-081413		8/14/2013 12:00:00 PM	8/17/2013
13080639-020B	PA-501-01(0-6)-081413	Fine Grained	8/14/2013 12:00:00 PM	8/17/2013
13080639-021A	PA-502-01(0-6)-081413		8/14/2013 2:00:00 PM	8/17/2013
13080639-021B	PA-502-01(0-6)-081413	Fine Grained	8/14/2013 2:00:00 PM	8/17/2013
13080639-022A	PA-502-01(6-24)-081413		8/14/2013 2:05:00 PM	8/17/2013
13080639-022B	PA-502-01(6-24)-081413	Fine Grained	8/14/2013 2:05:00 PM	8/17/2013
13080639-023A	PA-503-01(0-6)-081413		8/14/2013 3:15:00 PM	8/17/2013
13080639-023B	PA-503-01(0-6)-081413	Fine Grained	8/14/2013 3:15:00 PM	8/17/2013
13080639-024A	PA-503-01(6-24)-081413		8/14/2013 3:20:00 PM	8/17/2013
13080639-024B	PA-503-01(6-24)-081413	Fine Grained	8/14/2013 3:20:00 PM	8/17/2013
13080639-025A	PA-504-01(0-6)-081513		8/15/2013 9:15:00 AM	8/17/2013
13080639-025B	PA-504-01(0-6)-081513	Fine Grained	8/15/2013 9:15:00 AM	8/17/2013
13080639-026A	PA-505-01(0-6)-081513		8/15/2013 10:25:00 AM	8/17/2013
13080639-026B	PA-505-01(0-6)-081513	Fine Grained	8/15/2013 10:25:00 AM	8/17/2013
13080639-027A	PA-505-01(0-6)-081513D		8/15/2013 10:30:00 AM	8/17/2013
13080639-027B	PA-505-01(0-6)-081513D	Fine Grained	8/15/2013 10:30:00 AM	8/17/2013
13080639-028A	PA-506-01(0-6)-081513		8/15/2013 11:40:00 AM	8/17/2013
13080639-028B	PA-506-01(0-6)-081513	Fine Grained	8/15/2013 11:40:00 AM	8/17/2013
13080639-029A	PA-507-01(0-6)-081513		8/15/2013 1:30:00 PM	8/17/2013
13080639-029B	PA-507-01(0-6)-081513	Fine Grained	8/15/2013 1:30:00 PM	8/17/2013
13080639-030A	PA-508-01(0-6)-081513		8/15/2013 2:45:00 PM	8/17/2013
13080639-030B	PA-508-01(0-6)-081513	Fine Grained	8/15/2013 2:45:00 PM	8/17/2013
13080639-031A	PA-508-01(6-24)-081513		8/15/2013 2:50:00 PM	8/17/2013
13080639-031B	PA-508-01(6-24)-081513	Fine Grained	8/15/2013 2:50:00 PM	8/17/2013
13080639-032A	PA-509-01(0-6)-081513		8/15/2013 4:00:00 PM	8/17/2013
13080639-032B	PA-509-01(0-6)-081513	Fine Grained	8/15/2013 4:00:00 PM	8/17/2013
13080639-033A	PA-510-01(0-6)-081513		8/15/2013 4:50:00 PM	8/17/2013
13080639-033B	PA-510-01(0-6)-081513	Fine Grained	8/15/2013 4:50:00 PM	8/17/2013
13080639-034A	PA-511-01(0-6)-081613		8/16/2013 8:30:00 AM	8/17/2013
13080639-034B	PA-511-01(0-6)-081613	Fine Grained	8/16/2013 8:30:00 AM	8/17/2013
13080639-035A	PA-512-01(0-6)-081613		8/16/2013 9:20:00 AM	8/17/2013
13080639-035B	PA-512-01(0-6)-081613	Fine Grained	8/16/2013 9:20:00 AM	8/17/2013
13080639-036A	PA-513-01(0-6)-081613		8/16/2013 9:50:00 AM	8/17/2013
13080639-036B	PA-513-01(0-6)-081613	Fine Grained	8/16/2013 9:50:00 AM	8/17/2013
13080639-037A	PA-513-01(0-6)-081613D		8/16/2013 9:55:00 AM	8/17/2013
13080639-037B	PA-513-01(0-6)-081613D	Fine Grained	8/16/2013 9:55:00 AM	8/17/2013
13080639-038A	PA-514-01(0-6)-081613		8/16/2013 11:25:00 AM	8/17/2013
13080639-038B	PA-514-01(0-6)-081613	Fine Grained	8/16/2013 11:25:00 AM	8/17/2013
13080639-039A	PA-514-01(6-24)-081613		8/16/2013 11:30:00 AM	8/17/2013
13080639-039B	PA-514-01(6-24)-081613	Fine Grained	8/16/2013 11:30:00 AM	8/17/2013

Project: Pilsen Soil Site, Pilsen, Chicago, IL

Lab Order: 13080639

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13080639-040A	PA-515-01(0-6)-081613		8/16/2013 1:30:00 PM	8/17/2013
13080639-040B	PA-515-01(0-6)-081613	Fine Grained	8/16/2013 1:30:00 PM	8/17/2013
13080639-041A	PA-516-01(0-6)-081613		8/16/2013 2:50:00 PM	8/17/2013
13080639-041B	PA-516-01(0-6)-081613	Fine Grained	8/16/2013 2:50:00 PM	8/17/2013
13080639-042A	PA-516-01(0-6)-081613D		8/16/2013 2:55:00 PM	8/17/2013
13080639-042B	PA-516-01(0-6)-081613D	Fine Grained	8/16/2013 2:55:00 PM	8/17/2013
13080639-043A	PA-516-01(6-18)-081613		8/16/2013 3:00:00 PM	8/17/2013
13080639-043B	PA-516-01(6-18)-081613	Fine Grained	8/16/2013 3:00:00 PM	8/17/2013

Work Order Sample Summary

Data Validation Report Pilsen Area Soil Site STAT Analysis Corporation Laboratory Project #: 13070839

ATTACHMENT B

STAT ANALYSIS CORPORATION RESULTS SUMMARY WITH QUALIFIERS

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

August 26, 2013

Weston Solutions 750 E. Bunker Court Suite 500

Vernon Hills, IL 60061 Telephone: (847) 918-4094

Fax: (847) 918-4055

RE: Pilsen Soil Site, Pilsen, Chicago, IL

STAT Project No: 13080639

Dear Tonya Balla:

STAT Analysis received 43 samples for the referenced project on 8/16/2013 4:42:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely, eatra A

Catia Giannini

Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This enalytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.

Date: August 26, 2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL Work Order Sample Summary

Lab Order: 13080639

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13080639-001A	PA-489-01(0-6)-081213		8/12/2013 2:40:00 PM	8/17/2013
13080639-001B	PA-489-01(0-6)-081213	Fine Grained	8/12/2013 2:40:00 PM	8/17/2013
13080639-002A	PA-489-01(6-18)-081213		8/12/2013 2:45:00 PM	8/17/2013
13080639-002B	PA-489-01(6-18)-081213	Fine Grained	8/12/2013 2:45:00 PM	8/17/2013
13080639-003A	PA-490-01(0-6)-081213		8/12/2013 3:30:00 PM	8/17/2013
13080639-003B	PA-490-01(0-6)-081213	Fine Grained	8/12/2013 3:30:00 PM	8/17/2013
13080639-004A	PA-491-01(0-6)-081213		8/12/2013 4:20:00 PM	8/17/2013
13080639-004B	PA-491-01(0-6)-081213	Fine Grained	8/12/2013 4:20:00 PM	8/17/2013
13080639-005A	PA-491-01(6-18)-081213		8/12/2013 4:25:00 PM	8/17/2013
13080639-005B	PA-491-01(6-18)-081213	Fine Grained	8/12/2013 4:25:00 PM	8/17/2013
13080639-006A	PA-491-01(6-18)-081213D		8/12/2013 4:30:00 PM	8/17/2013
13080639-006B	PA-491-01(6-18)-081213D	Fine Grained	8/12/2013 4:30:00 PM	8/17/2013
13080639-007A	PA-492-01(0-6)-081313		8/13/2013 10:00:00 AM	8/17/2013
13080639-007B	PA-492-01(0-6)-081313	Fine Grained	8/13/2013 10:00:00 AM	8/17/2013
13080639-008A	PA-493-01(0-6)-081313		8/13/2013 10:45:00 AM	8/17/2013
13080639-008B	PA-493-01(0-6)-081313	Fine Grained	8/13/2013 10:45:00 AM	8/17/2013
13080639-009A	PA-494-01(0-6)-081313		8/13/2013 12:00:00 PM	8/17/2013
13080639-009B	PA-494-01(0-6)-081313	Fine Grained	8/13/2013 12:00:00 PM	8/17/2013
13080639-010A	PA-495-01(0-6)-081313		8/13/2013 2:00:00 PM	8/17/2013
13080639-010B	PA-495-01(0-6)-081313	Fine Grained	8/13/2013 2:00:00 PM	8/17/2013
13080639-011A	PA-495-01(6-24)-081313		8/13/2013 2:05:00 PM	8/17/2013
13080639-011B	PA-495-01(6-24)-081313	Fine Grained	8/13/2013 2:05:00 PM	8/17/2013
13080639-012A	PA-496-01(0-6)-081313		8/13/2013 3:00:00 PM	8/17/2013
13080639-012B	PA-496-01(0-6)-081313	Fine Grained	8/13/2013 3:00:00 PM	8/17/2013
13080639-013A	PA-497-01(0-6)-081313		8/13/2013 3:50:00 PM	8/17/2013
13080639-013B	PA-497-01(0-6)-081313	Fine Grained	8/13/2013 3:50:00 PM	8/17/2013
13080639-014A	PA-498-01(0-6)-081313		8/13/2013 4:50:00 PM	8/17/2013
13080639-014B	PA-498-01(0-6)-081313	Fine Grained	8/13/2013 4:50:00 PM	8/17/2013
13080639-015A	PA-498-01(0-6)-081313D		8/13/2013 4:55:00 PM	8/17/2013
13080639-015B	PA-498-01(0-6)-081313D	Fine Grained	8/13/2013 4:55:00 PM	8/17/2013
13080639-016A	PA-498-01(6-15)-081313		8/13/2013 5:00:00 PM	8/17/2013
13080639-016B	PA-498-01(6-15)-081313	Fine Grained	8/13/2013 5:00:00 PM	8/17/2013
13080639-017A	PA-499-01(0-6)-081413		8/14/2013 9:45:00 AM	8/17/2013
13080639-017B	PA-499-01(0-6)-081413	Fine Grained	8/14/2013 9:45:00 AM	8/17/2013
13080639-018A	PA-500-01(0-6)-081413		8/14/2013 11:00:00 AM	8/17/2013
13080639-018B	PA-500-01(0-6)-081413	Fine Grained	8/14/2013 11:00:00 AM	8/17/2013
13080639-019A	PA-500-01(6-24)-081413		8/14/2013 11:05:00 AM	8/17/2013
13080639-019B	PA-500-01(6-24)-081413	Fine Grained	8/14/2013 11:05:00 AM	8/17/2013

Client: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL

Lab Order: 13080639

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13080639-020A	PA-501-01(0-6)-081413		8/14/2013 12:00:00 PM	8/17/2013
13080639-020B	PA-501-01(0-6)-081413	Fine Grained	8/14/2013 12:00:00 PM	8/17/2013
13080639-021A	PA-502-01(0-6)-081413		8/14/2013 2:00:00 PM	8/17/2013
13080639-021B	PA-502-01(0-6)-081413	Fine Grained	8/14/2013 2:00:00 PM	8/17/2013
13080639-022A	PA-502-01(6-24)-081413		8/14/2013 2:05:00 PM	8/17/2013
13080639-022B	PA-502-01(6-24)-081413	Fine Grained	8/14/2013 2:05:00 PM	8/17/2013
13080639-023A	PA-503-01(0-6)-081413		8/14/2013 3:15:00 PM	8/17/2013
13080639-023B	PA-503-01(0-6)-081413	Fine Grained	8/14/2013 3:15:00 PM	8/17/2013
13080639-024A	PA-503-01(6-24)-081413		8/14/2013 3:20:00 PM	8/17/2013
13080639-024B	PA-503-01(6-24)-081413	Fine Grained	8/14/2013 3:20:00 PM	8/17/2013
13080639-025A	PA-504-01(0-6)-081513		8/15/2013 9:15:00 AM	8/17/2013
13080639-025B	PA-504-01(0-6)-081513	Fine Grained	8/15/2013 9:15:00 AM	8/17/2013
13080639-026A	PA-505-01(0-6)-081513		8/15/2013 10:25:00 AM	8/17/2013
13080639-026B	PA-505-01(0-6)-081513	Fine Grained	8/15/2013 10:25:00 AM	8/17/2013
13080639-027A	PA-505-01(0-6)-081513D		8/15/2013 10:30:00 AM	8/17/2013
13080639-027B	PA-505-01(0-6)-081513D	Fine Grained	8/15/2013 10:30:00 AM	8/17/2013
13080639-028A	PA-506-01(0-6)-081513		8/15/2013 11:40:00 AM	8/17/2013
13080639-028B	PA-506-01(0-6)-081513	Fine Grained	8/15/2013 11:40:00 AM	8/17/2013
13080639-029A	PA-507-01(0-6)-081513		8/15/2013 1:30:00 PM	8/17/2013
13080639-029B	PA-507-01(0-6)-081513	Fine Grained	8/15/2013 1:30:00 PM	8/17/2013
13080639-030A	PA-508-01(0-6)-081513		8/15/2013 2:45:00 PM	8/17/2013
13080639-030B	PA-508-01(0-6)-081513	Fine Grained	8/15/2013 2:45:00 PM	8/17/2013
13080639-031A	PA-508-01(6-24)-081513		8/15/2013 2:50:00 PM	8/17/2013
13080639-031B	PA-508-01(6-24)-081513	Fine Grained	8/15/2013 2:50:00 PM	8/17/2013
13080639-032A	PA-509-01(0-6)-081513		8/15/2013 4:00:00 PM	8/17/2013
13080639-032B	PA-509-01(0-6)-081513	Fine Grained	8/15/2013 4:00:00 PM	8/17/2013
13080639-033A	PA-510-01(0-6)-081513		8/15/2013 4:50:00 PM	8/17/2013
13080639-033B	PA-510-01(0-6)-081513	Fine Grained	8/15/2013 4:50:00 PM	8/17/2013
13080639-034A	PA-511-01(0-6)-081613		8/16/2013 8:30:00 AM	8/17/2013
13080639-034B	PA-511-01(0-6)-081613	Fine Grained	8/16/2013 8:30:00 AM	8/17/2013
13080639-035A	PA-512-01(0-6)-081613		8/16/2013 9:20:00 AM	8/17/2013
13080639-035B	PA-512-01(0-6)-081613	Fine Grained	8/16/2013 9:20:00 AM	8/17/2013
13080639-036A	PA-513-01(0-6)-081613		8/16/2013 9:50:00 AM	8/17/2013
13080639-036B	PA-513-01(0-6)-081613	Fine Grained	8/16/2013 9:50:00 AM	8/17/2013
13080639-037A	PA-513-01(0-6)-081613D		8/16/2013 9:55:00 AM	8/17/2013
13080639-037B	PA-513-01(0-6)-081613D	Fine Grained	8/16/2013 9:55:00 AM	8/17/2013
13080639-038A	PA-514-01(0-6)-081613		8/16/2013 11:25:00 AM	8/17/2013
13080639-038B	PA-514-01(0-6)-081613	Fine Grained	8/16/2013 11:25:00 AM	8/17/2013
13080639-039A	PA-514-01(6-24)-081613		8/16/2013 11:30:00 AM	8/17/2013
13080639-039B	PA-514-01(6-24)-081613	Fine Grained	8/16/2013 11:30:00 AM	8/17/2013

Project: Pilsen Soil Site, Pilsen, Chicago, IL

Lab Order: 13080639

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13080639-040A	PA-515-01(0-6)-081613		8/16/2013 1:30:00 PM	8/17/2013
13080639-040B	PA-515-01(0-6)-081613	Fine Grained	8/16/2013 1:30:00 PM	8/17/2013
13080639-041A	PA-516-01(0-6)-081613		8/16/2013 2:50:00 PM	8/17/2013
13080639-041B	PA-516-01(0-6)-081613	Fine Grained	8/16/2013 2:50:00 PM	8/17/2013
13080639-042A	PA-516-01(0-6)-081613D		8/16/2013 2:55:00 PM	8/17/2013
13080639-042B	PA-516-01(0-6)-081613D	Fine Grained	8/16/2013 2:55:00 PM	8/17/2013
13080639-043A	PA-516-01(6-18)-081613		8/16/2013 3:00:00 PM	8/17/2013
13080639-043B	PA-516-01(6-18)-081613	Fine Grained	8/16/2013 3:00:00 PM	8/17/2013

Work Order Sample Summary

Date: August 26, 2013

CLIENT: Weston Solutions

Project: Pilsen Soil Site, Pilsen, Chicago, IL CASE NARRATIVE

Lab Order: 13080639

Sample report lists:

Fraction A: Results on "as received" basis that the results are corrected for percent moisture.

Fraction B: Fine Grained (less than 250 µm sieve size)

The soils were air dried and sieved for particle size.

The total metals Matrix Spike/Matrix Spike Duplicate (MS/MSD) prepared from sample PA-515-01(0-6)-081613 (13080639-040) (Prep Batch 71453) had recoveries outside control limits. The sample, MS and MSD were redigested in batch 71524. Results are still outside control limits and reported from batch 71524.

Please refer to Analytical QC Summary Report for other QC outliers.

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-489-01(0-6)-081213

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 2:40:00 PM

Lab ID: 13080639-001A **Matrix:** Soil

Analyses	Result	RL Q	Qualifier	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/19/2013	Analyst: LB
Mercury	0.14	0.022		mg/Kg-dry	1	8/20/2013
Metals by ICP/MS	SW60)20 (SW305	60B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.2		mg/Kg-dry	20	8/22/2013
Cadmium	1.4	1		mg/Kg-dry	20	8/22/2013
Chromium	17	2.1		mg/Kg-dry	20	8/22/2013
Copper	30	5.2		mg/Kg-dry	20	8/22/2013
Lead	160	1		mg/Kg-dry	20	8/22/2013
Tin	ND	10	*	mg/Kg-dry	20	8/22/2013
Zinc	140	10		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	15.3	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-489-01(0-6)-081213

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 2:40:00 PM

Lab ID: 13080639-001B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 160
 4.7
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-489-01(6-18)-081213

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 2:45:00 PM

Lab ID: 13080639-002A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	r Units	DF	Date Analyzed
Mercury	SW7	471A		Prep	Date: 8/19/2013	Analyst: LB
Mercury	0.13	0.022		mg/Kg-dry	1	8/20/2013
Metals by ICP/MS	SW60	020 (SW305	0B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.4		mg/Kg-dry	20	8/22/2013
Cadmium	1.4	1.1		mg/Kg-dry	20	8/22/2013
Chromium	18	2.2		mg/Kg-dry	20	8/22/2013
Copper	28	5.5		mg/Kg-dry	20	8/22/2013
Lead	92	1.1		mg/Kg-dry	20	8/22/2013
Tin	ND	11	*	mg/Kg-dry	20	8/22/2013
Zinc	120	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	16.5	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-489-01(6-18)-081213

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 2:45:00 PM

Lab ID: 13080639-002B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 150
 4.6
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

R - RI D outside accepted recovery mini

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-490-01(0-6)-081213

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 3:30:00 PM

Lab ID: 13080639-003A **Matrix:** Soil

Analyses	Result	RL Q	ualifier	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/19/2013	Analyst: LB
Mercury	0.29	0.019	m	g/Kg-dry	1	8/20/2013
Metals by ICP/MS	SW60)20 (SW305	0B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.4	m	g/Kg-dry	20	8/22/2013
Cadmium	1.6	1.1	m	g/Kg-dry	20	8/22/2013
Chromium	19	2.2	m	g/Kg-dry	20	8/22/2013
Copper	33	5.6	m	g/Kg-dry	20	8/22/2013
Lead	220	1.1	m	g/Kg-dry	20	8/22/2013
Tin	ND	11	* m	g/Kg-dry	20	8/22/2013
Zinc	150	11	m	g/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	16.7	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-490-01(0-6)-081213

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 3:30:00 PM

Lab ID: 13080639-003B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 230
 4.7
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

_

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-491-01(0-6)-081213

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 4:20:00 PM

Lab ID: 13080639-004A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/19/2013	Analyst: LB
Mercury	0.42	0.024		mg/Kg-dry	1	8/20/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.8		mg/Kg-dry	20	8/22/2013
Cadmium	1.8	1.2		mg/Kg-dry	20	8/22/2013
Chromium	21	2.4		mg/Kg-dry	20	8/22/2013
Copper	68	6		mg/Kg-dry	20	8/22/2013
Lead	260	1.2		mg/Kg-dry	20	8/22/2013
Tin	16	12	*	mg/Kg-dry	20	8/22/2013
Zinc	270	12		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	17.4	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-491-01(0-6)-081213

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 4:20:00 PM

Lab ID: 13080639-004B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 280
 4.9
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-491-01(6-18)-081213

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 4:25:00 PM

Lab ID: 13080639-005A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	r Units	DF	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/19/2013	Analyst: LB
Mercury	0.6	0.022		mg/Kg-dry	1	8/20/2013
Metals by ICP/MS	SW60)20 (SW3050	0B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.5		mg/Kg-dry	20	8/22/2013
Cadmium	1.6	1.1		mg/Kg-dry	20	8/22/2013
Chromium	36	2.2		mg/Kg-dry	20	8/22/2013
Copper	71	5.6		mg/Kg-dry	20	8/22/2013
Lead	270	1.1		mg/Kg-dry	20	8/22/2013
Tin	15	11	*	mg/Kg-dry	20	8/22/2013
Zinc	250	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	8 Analyst: SDA
Percent Moisture	13.8	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-491-01(6-18)-081213

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 4:25:00 PM

Lab ID: 13080639-005B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 400
 4.7
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-491-01(6-18)-081213D

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 4:30:00 PM

Lab ID: 13080639-006A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF I	Date Analyzed
Mercury	SW7471A			Prep Date: 8/19/2013		Analyst: LB
Mercury	0.66	0.02		mg/Kg-dry	1	8/20/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.1		mg/Kg-dry	20	8/22/2013
Cadmium	1.5	1		mg/Kg-dry	20	8/22/2013
Chromium	17	2		mg/Kg-dry	20	8/22/2013
Copper	65	5.1		mg/Kg-dry	20	8/22/2013
Lead	260	1		mg/Kg-dry	20	8/22/2013
Tin	16	10	*	mg/Kg-dry	20	8/22/2013
Zinc	230	10		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974			Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	12.2	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-491-01(6-18)-081213D

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/12/2013 4:30:00 PM

Lab ID: 13080639-006B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 390
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-492-01(0-6)-081313

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 10:00:00 AM

Lab ID: 13080639-007A **Matrix:** Soil

Analyses	Result	RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SW747	'1A		Prep	Date: 8/19/2013	Analyst: LB
Mercury	0.33	0.02		mg/Kg-dry	1	8/20/2013
Metals by ICP/MS	SW602	0 (SW3))50B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.4		mg/Kg-dry	20	8/22/2013
Cadmium	2.7	1.1		mg/Kg-dry	20	8/22/2013
Chromium	24	2.2		mg/Kg-dry	20	8/22/2013
Copper	66	5.5		mg/Kg-dry	20	8/22/2013
Lead	260	1.1		mg/Kg-dry	20	8/22/2013
Tin	13	11	*	mg/Kg-dry	20	8/22/2013
Zinc	210	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974			Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	17.7	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

s - spike Recovery outside accepted recovery mini

R - RPD outside accepted recovery limits E - Value above quantitation range

H - Holding time exceeded

104

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-492-01(0-6)-081313

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 10:00:00 AM

Lab ID: 13080639-007B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 210
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-493-01(0-6)-081313

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 10:45:00 AM

Lab ID: 13080639-008A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/19/2013	Analyst: LB
Mercury	0.39	0.022		mg/Kg-dry	1	8/20/2013
Metals by ICP/MS	SW60)20 (SW305	50B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.3		mg/Kg-dry	20	8/22/2013
Cadmium	1.8	1.1		mg/Kg-dry	20	8/22/2013
Chromium	16	2.2		mg/Kg-dry	20	8/22/2013
Copper	45	5.4		mg/Kg-dry	20	8/22/2013
Lead	190	1.1		mg/Kg-dry	20	8/22/2013
Tin	ND	11	*	mg/Kg-dry	20	8/22/2013
Zinc	170	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	18.5	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-493-01(0-6)-081313

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 10:45:00 AM

Lab ID: 13080639-008B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 210
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-494-01(0-6)-081313

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 12:00:00 PM

Lab ID: 13080639-009A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/19/2013	Analyst: LB
Mercury	0.17	0.023		mg/Kg-dry	1	8/20/2013
Metals by ICP/MS	SW60	020 (SW30	50B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.6		mg/Kg-dry	20	8/22/2013
Cadmium	2	1.2		mg/Kg-dry	20	8/22/2013
Chromium	33	2.3		mg/Kg-dry	20	8/22/2013
Copper	46	5.8		mg/Kg-dry	20	8/22/2013
Lead	120	1.2		mg/Kg-dry	20	8/22/2013
Tin	ND	12	*	mg/Kg-dry	20	8/22/2013
Zinc	170	12		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	17.9	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-494-01(0-6)-081313

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 12:00:00 PM

Lab ID: 13080639-009B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 110
 4.9
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

- --- duiside accepted recovery mints

E - Value above quantitation range H - Holding time exceeded

11 Holding time exec

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-495-01(0-6)-081313

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 2:00:00 PM

Lab ID: 13080639-010A **Matrix:** Soil

Analyses	Result	RL Q	Qualifier	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.31	0.022		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60)20 (SW305	50B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	3.8		mg/Kg-dry	20	8/22/2013
Cadmium	2.6	0.95		mg/Kg-dry	20	8/22/2013
Chromium	25	1.9		mg/Kg-dry	20	8/22/2013
Copper	56	4.8		mg/Kg-dry	20	8/22/2013
Lead	930	0.95		mg/Kg-dry	20	8/22/2013
Tin	16	9.5	*	mg/Kg-dry	20	8/22/2013
Zinc	430	9.5		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	13.8	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-495-01(0-6)-081313

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 2:00:00 PM

Lab ID: 13080639-010B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1000
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-495-01(6-24)-081313

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 2:05:00 PM

Lab ID: 13080639-011A **Matrix:** Soil

Analyses	Result	RL Q	Qualifie	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.49	0.019		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	20 (SW305	0B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4		mg/Kg-dry	20	8/22/2013
Cadmium	3.6	1		mg/Kg-dry	20	8/22/2013
Chromium	21	2		mg/Kg-dry	20	8/22/2013
Copper	180	5.1		mg/Kg-dry	20	8/22/2013
Lead	1800	1		mg/Kg-dry	20	8/22/2013
Tin	50	10	*	mg/Kg-dry	20	8/22/2013
Zinc	720	10		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974	ļ		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	15.6	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-495-01(6-24)-081313

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 2:05:00 PM

Lab ID: 13080639-011B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1800
 5
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-496-01(0-6)-081313

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 3:00:00 PM

Lab ID: 13080639-012A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	er Units	DF	Date Analyzed
Mercury	SW74	471A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.12	0.021		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	020 (SW305	0B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.4		mg/Kg-dry	20	8/22/2013
Cadmium	2.8	1.1		mg/Kg-dry	20	8/22/2013
Chromium	19	2.2		mg/Kg-dry	20	8/22/2013
Copper	64	5.5		mg/Kg-dry	20	8/22/2013
Lead	230	1.1		mg/Kg-dry	20	8/22/2013
Tin	11	11	*	mg/Kg-dry	20	8/22/2013
Zinc	380	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	11.9	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-496-01(0-6)-081313

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 3:00:00 PM

Lab ID: 13080639-012B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 360
 4.6
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-497-01(0-6)-081313

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 3:50:00 PM

Lab ID: 13080639-013A **Matrix:** Soil

Analyses	Result	RL Q	ualifier	Units	DF I	Date Analyzed
Mercury	SW74	71A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.4	0.024		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	20 (SW305	0B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.4		mg/Kg-dry	20	8/22/2013
Cadmium	2.2	1.1		mg/Kg-dry	20	8/22/2013
Chromium	18	2.2		mg/Kg-dry	20	8/22/2013
Copper	53	5.5		mg/Kg-dry	20	8/22/2013
Lead	460	1.1		mg/Kg-dry	20	8/22/2013
Tin	15	11	*	mg/Kg-dry	20	8/22/2013
Zinc	350	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974	1		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	19.6	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

s - spike Recovery outside accepted recovery mini

R - RPD outside accepted recovery limits E - Value above quantitation range

H - Holding time exceeded

•

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-497-01(0-6)-081313

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 3:50:00 PM

Lab ID: 13080639-013B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 460
 4.9
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

K - KFD outside accepted recovery mini

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-498-01(0-6)-081313

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 4:50:00 PM

Lab ID: 13080639-014A **Matrix:** Soil

Analyses	Result	RL (Qualifier	r Units	DF 1	Date Analyzed
Mercury	SW747	71A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.17	0.02		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	3.9		mg/Kg-dry	20	8/22/2013
Cadmium	1.5	0.97		mg/Kg-dry	20	8/22/2013
Chromium	16	1.9		mg/Kg-dry	20	8/22/2013
Copper	38	4.8		mg/Kg-dry	20	8/22/2013
Lead	270	0.97		mg/Kg-dry	20	8/22/2013
Tin	ND	9.7	*	mg/Kg-dry	20	8/22/2013
Zinc	200	9.7		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974			Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	13.8	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-498-01(0-6)-081313

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 4:50:00 PM

Lab ID: 13080639-014B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 340
 4.6
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-498-01(0-6)-081313D

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 4:55:00 PM

Lab ID: 13080639-015A **Matrix:** Soil

Analyses	Result	RL Qu	alifier Units	DF I	Date Analyzed
Mercury	SW74	71A	Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.17	0.02	mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW602	20 (SW3050	B) Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.3	mg/Kg-dry	20	8/22/2013
Cadmium	1.5	1.1	mg/Kg-dry	20	8/22/2013
Chromium	14	2.2	mg/Kg-dry	20	8/22/2013
Copper	36	5.4	mg/Kg-dry	20	8/22/2013
Lead	280	1.1	mg/Kg-dry	20	8/22/2013
Tin	ND	11	* mg/Kg-dry	20	8/22/2013
Zinc	200	11	mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	14.0	0.2	* wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-498-01(0-6)-081313D

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 4:55:00 PM

Lab ID: 13080639-015B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 330
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-498-01(6-15)-081313

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 5:00:00 PM

Lab ID: 13080639-016A **Matrix:** Soil

Analyses	Result	RL Q	Qualifie	er Units	DF I	Date Analyzed
Mercury	SW7	SW7471A			Prep Date: 8/20/2013	
Mercury	0.31	0.019		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	020 (SW305	60B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.4		mg/Kg-dry	20	8/22/2013
Cadmium	1.9	1.1		mg/Kg-dry	20	8/22/2013
Chromium	14	2.2		mg/Kg-dry	20	8/22/2013
Copper	41	5.5		mg/Kg-dry	20	8/22/2013
Lead	550	1.1		mg/Kg-dry	20	8/22/2013
Tin	14	11	*	mg/Kg-dry	20	8/22/2013
Zinc	380	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	9.9	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-498-01(6-15)-081313

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/13/2013 5:00:00 PM

Lab ID: 13080639-016B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 640
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202-

> Report Date: August 26, 2013 Print Date: August 26, 2013

Client:

Weston Solutions

Lab Order:

Client Sample ID: PA-499-01(0-6)-081413

13080639

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date: 8/14/2013 9:45:00 AM

Lab ID:

13080639-017A

Matrix: Soil

Lab ID: 15060059-017A: Matrix: Soil						
Analyses	Result	RL	Qualifier	Units	DF -	Date Analyzed
Mercury	SW747	1A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.65 J	0.042		mg/Kg-dry	2	8/21/2013
Metals by ICP/MS		0 (SW30	50B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND VO	4.5	15	mg/Kg-dry	20	8/22/2013
Cadmium	2.5	1.1		mg/Kg-dry	20	8/22/2013
Chromium	14	2.3		mg/Kg-dry	20	8/22/2013
Copper	86	14		mg/Kg-dry	50	8/21/2013
Lead	1200	1.1		mg/Kg-dry	20	8/22/2013
Tin	26 J	11		mg/Kg-dry	20	8/22/2013
Zinc	500	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974			Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	14.3	0.2	*	wt%	1	8/20/2013

4/1/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-499-01(0-6)-081413

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 9:45:00 AM

Lab ID: 13080639-017B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1100
 5
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

30 6 134

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-500-01(0-6)-081413

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 11:00:00 AM

Lab ID: 13080639-018A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.88	0.065		mg/Kg-dry	3	8/21/2013
Metals by ICP/MS	SW60)20 (SW30	50B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	4.4		mg/Kg-dry	20	8/22/2013
Cadmium	3.4	1.1		mg/Kg-dry	20	8/22/2013
Chromium	26	2.2		mg/Kg-dry	20	8/22/2013
Copper	72	5.5		mg/Kg-dry	20	8/22/2013
Lead	760	1.1		mg/Kg-dry	20	8/22/2013
Tin	27	11	*	mg/Kg-dry	20	8/22/2013
Zinc	620	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	13.4	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-500-01(0-6)-081413

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 11:00:00 AM

Lab ID: 13080639-018B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1300
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-500-01(6-24)-081413

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 11:05:00 AM

Lab ID: 13080639-019A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF 1	Date Analyzed
Mercury	SW747	′1A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	1.7	0.2		mg/Kg-dry	10	8/21/2013
Metals by ICP/MS	SW602	20 (SW3	050B)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	3.9		mg/Kg-dry	20	8/22/2013
Cadmium	3.1	0.97		mg/Kg-dry	20	8/22/2013
Chromium	22	1.9		mg/Kg-dry	20	8/22/2013
Copper	88	4.8		mg/Kg-dry	20	8/22/2013
Lead	930	0.97		mg/Kg-dry	20	8/22/2013
Tin	28	9.7	*	mg/Kg-dry	20	8/22/2013
Zinc	690	9.7		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974			Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	12.9	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-500-01(6-24)-081413

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 11:05:00 AM

Lab ID: 13080639-019B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1400
 5
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-501-01(0-6)-081413

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 12:00:00 PM

Lab ID: 13080639-020A **Matrix:** Soil

Analyses	Result	RL Qı	ıalifier	Units	DF I	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.081	0.026	m	ıg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60)20 (SW3050	В)	Prep	Date: 8/20/2013	Analyst: JG
Antimony	ND	5.2	m	ıg/Kg-dry	20	8/22/2013
Cadmium	1.4	1.3	m	ıg/Kg-dry	20	8/22/2013
Chromium	22	2.6	m	ıg/Kg-dry	20	8/22/2013
Copper	28	6.5	m	ıg/Kg-dry	20	8/22/2013
Lead	66	1.3	m	ıg/Kg-dry	20	8/22/2013
Tin	ND	13	* m	ıg/Kg-dry	20	8/22/2013
Zinc	150	13	m	ıg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	30.7	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-501-01(0-6)-081413

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 12:00:00 PM

Lab ID: 13080639-020B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 66
 6.5
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-502-01(0-6)-081413

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 2:00:00 PM

Lab ID: 13080639-021A **Matrix:** Soil

Analyses	Result	RL (Qualifie	r Units	DF I	Date Analyzed
Mercury	SW747	71A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	1	0.22		mg/Kg-dry	10	8/21/2013
Metals by ICP/MS	SW602	20 (SW305	50B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.8		mg/Kg-dry	20	8/22/2013
Cadmium	7.3	1.2		mg/Kg-dry	20	8/22/2013
Chromium	60	2.4		mg/Kg-dry	20	8/22/2013
Copper	300	6		mg/Kg-dry	20	8/22/2013
Lead	780	1.2		mg/Kg-dry	20	8/22/2013
Tin	20	12	*	mg/Kg-dry	20	8/22/2013
Zinc	610	12		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974			Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	23.1	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-502-01(0-6)-081413

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 2:00:00 PM

Lab ID: 13080639-021B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 620
 5.5
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-502-01(6-24)-081413

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 2:05:00 PM

Lab ID: 13080639-022A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	1.2	0.25		mg/Kg-dry	10	8/21/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.5		mg/Kg-dry	20	8/22/2013
Cadmium	4.9	1.1		mg/Kg-dry	20	8/22/2013
Chromium	38	2.3		mg/Kg-dry	20	8/22/2013
Copper	91	5.6		mg/Kg-dry	20	8/22/2013
Lead	580	1.1		mg/Kg-dry	20	8/22/2013
Tin	26	11	*	mg/Kg-dry	20	8/22/2013
Zinc	490	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974			Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	22.1	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-502-01(6-24)-081413

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 2:05:00 PM

Lab ID: 13080639-022B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 770
 5.7
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-503-01(0-6)-081413

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 3:15:00 PM

Lab ID: 13080639-023A **Matrix:** Soil

Analyses	Result	RL (Qualifie	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.64	0.024		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	20 (SW305	60B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.7		mg/Kg-dry	20	8/22/2013
Cadmium	6.1	1.2		mg/Kg-dry	20	8/22/2013
Chromium	25	2.4		mg/Kg-dry	20	8/22/2013
Copper	130	5.9		mg/Kg-dry	20	8/22/2013
Lead	1400	1.2		mg/Kg-dry	20	8/22/2013
Tin	21	12	*	mg/Kg-dry	20	8/22/2013
Zinc	830	12		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974	ļ		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	17.1	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-503-01(0-6)-081413

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 3:15:00 PM

Lab ID: 13080639-023B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1700
 5.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

Page 51 of 124

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-503-01(6-24)-081413

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 3:20:00 PM

Lab ID: 13080639-024A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	er Units	DF	Date Analyzed
Mercury	SW74	471A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.74	0.062		mg/Kg-dry	3	8/21/2013
Metals by ICP/MS	SW60	020 (SW305	0B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.1		mg/Kg-dry	20	8/22/2013
Cadmium	5.1	1		mg/Kg-dry	20	8/22/2013
Chromium	23	2.1		mg/Kg-dry	20	8/22/2013
Copper	140	5.2		mg/Kg-dry	20	8/22/2013
Lead	840	1		mg/Kg-dry	20	8/22/2013
Tin	110	10	*	mg/Kg-dry	20	8/22/2013
Zinc	800	10		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	12.9	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-503-01(6-24)-081413

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/14/2013 3:20:00 PM

Lab ID: 13080639-024B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1200
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-504-01(0-6)-081513

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 9:15:00 AM

Lab ID: 13080639-025A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF I	Date Analyzed
Mercury	SW74	71A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.19	0.025		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.8		mg/Kg-dry	20	8/22/2013
Cadmium	1.8	1.2		mg/Kg-dry	20	8/22/2013
Chromium	21	2.4		mg/Kg-dry	20	8/22/2013
Copper	41	6.1		mg/Kg-dry	20	8/22/2013
Lead	390	1.2		mg/Kg-dry	20	8/22/2013
Tin	26	12	*	mg/Kg-dry	20	8/22/2013
Zinc	240	12		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974	1		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	20.2	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-504-01(0-6)-081513

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 9:15:00 AM

Lab ID: 13080639-025B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 330
 5.1
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-505-01(0-6)-081513

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 10:25:00 AM

Lab ID: 13080639-026A **Matrix:** Soil

Analyses	Result	RL (Qualifie	r Units	DF I	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.97	0.077		mg/Kg-dry	3	8/21/2013
Metals by ICP/MS	SW60)20 (SW305	50B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	5.3		mg/Kg-dry	20	8/22/2013
Cadmium	5.5	1.3		mg/Kg-dry	20	8/22/2013
Chromium	53	2.6		mg/Kg-dry	20	8/22/2013
Copper	170	6.6		mg/Kg-dry	20	8/22/2013
Lead	1300	1.3		mg/Kg-dry	20	8/22/2013
Tin	33	13	*	mg/Kg-dry	20	8/22/2013
Zinc	1300	13		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	25.4	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-505-01(0-6)-081513

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 10:25:00 AM

Lab ID: 13080639-026B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1900
 5.1
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-505-01(0-6)-081513D

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 10:30:00 AM

Lab ID: 13080639-027A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.87	0.027		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.5		mg/Kg-dry	20	8/22/2013
Cadmium	6	1.1		mg/Kg-dry	20	8/22/2013
Chromium	35	2.2		mg/Kg-dry	20	8/22/2013
Copper	180	5.6		mg/Kg-dry	20	8/22/2013
Lead	1400	1.1		mg/Kg-dry	20	8/22/2013
Tin	30	11	*	mg/Kg-dry	20	8/22/2013
Zinc	1300	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	24.9	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-505-01(0-6)-081513D

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 10:30:00 AM

Lab ID: 13080639-027B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1600
 5.3
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

 \boldsymbol{B} - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

Page 59 of 124

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-506-01(0-6)-081513

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 11:40:00 AM

Lab ID: 13080639-028A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	r Units	DF I	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.99	0.063		mg/Kg-dry	3	8/21/2013
Metals by ICP/MS	SW60	20 (SW3050	0B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.6		mg/Kg-dry	20	8/22/2013
Cadmium	4.1	1.1		mg/Kg-dry	20	8/22/2013
Chromium	28	2.3		mg/Kg-dry	20	8/22/2013
Copper	94	5.7		mg/Kg-dry	20	8/22/2013
Lead	940	1.1		mg/Kg-dry	20	8/22/2013
Tin	17	11	*	mg/Kg-dry	20	8/22/2013
Zinc	780	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	12.7	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-506-01(0-6)-081513

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 11:40:00 AM

Lab ID: 13080639-028B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1400
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-507-01(0-6)-081513

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 1:30:00 PM

Lab ID: 13080639-029A **Matrix:** Soil

Analyses	Result	RL (Qualifier	· Units	DF 1	Date Analyzed
Mercury	SW747	71A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.25	0.02		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW602	20 (SW30	50B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4		mg/Kg-dry	20	8/22/2013
Cadmium	3.2	0.99		mg/Kg-dry	20	8/22/2013
Chromium	15	2		mg/Kg-dry	20	8/22/2013
Copper	48	4.9		mg/Kg-dry	20	8/22/2013
Lead	270	0.99		mg/Kg-dry	20	8/22/2013
Tin	ND	9.9	*	mg/Kg-dry	20	8/22/2013
Zinc	280	9.9		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974			Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	11.3	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-507-01(0-6)-081513

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 1:30:00 PM

Lab ID: 13080639-029B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 630
 4.7
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-508-01(0-6)-081513

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 2:45:00 PM

Lab ID: 13080639-030A **Matrix:** Soil

Analyses	Result	RL Q	ualifie	r Units	DF	Date Analyzed
Mercury	SW74	71A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.48	0.02		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW602	20 (SW3050	0B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.4		mg/Kg-dry	20	8/22/2013
Cadmium	2.7	1.1		mg/Kg-dry	20	8/22/2013
Chromium	26	2.2		mg/Kg-dry	20	8/22/2013
Copper	52	5.5		mg/Kg-dry	20	8/22/2013
Lead	580	1.1		mg/Kg-dry	20	8/22/2013
Tin	ND	11	*	mg/Kg-dry	20	8/22/2013
Zinc	400	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974			Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	15.2	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-508-01(0-6)-081513

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 2:45:00 PM

Lab ID: 13080639-030B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 290
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-508-01(6-24)-081513

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 2:50:00 PM

Lab ID: 13080639-031A **Matrix:** Soil

Analyses	Result	RL (Qualifie	r Units	DF	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.34	0.023		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	020 (SW305	50B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.1		mg/Kg-dry	20	8/22/2013
Cadmium	1.8	1		mg/Kg-dry	20	8/22/2013
Chromium	9	2.1		mg/Kg-dry	20	8/22/2013
Copper	25	5.2		mg/Kg-dry	20	8/22/2013
Lead	140	1		mg/Kg-dry	20	8/22/2013
Tin	12	10	*	mg/Kg-dry	20	8/22/2013
Zinc	210	10		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	19.2	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-508-01(6-24)-081513

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 2:50:00 PM

Lab ID: 13080639-031B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 110
 4.4
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

K - Ki D outside accepted recovery illin

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-509-01(0-6)-081513

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 4:00:00 PM

Lab ID: 13080639-032A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	1.2	0.076		mg/Kg-dry	3	8/21/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	5		mg/Kg-dry	20	8/22/2013
Cadmium	4.7	1.2		mg/Kg-dry	20	8/22/2013
Chromium	40	2.5		mg/Kg-dry	20	8/22/2013
Copper	120	6.2		mg/Kg-dry	20	8/22/2013
Lead	1400	1.2		mg/Kg-dry	20	8/22/2013
Tin	53	12	*	mg/Kg-dry	20	8/22/2013
Zinc	830	12		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	21.3	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-509-01(0-6)-081513

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 4:00:00 PM

Lab ID: 13080639-032B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1400
 4.9
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-510-01(0-6)-081513

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 4:50:00 PM

Lab ID: 13080639-033A **Matrix:** Soil

Analyses	Result	RL Q	Qualifie	r Units	DF	Date Analyzed
Mercury	SW74	71 A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.99	0.07		mg/Kg-dry	3	8/21/2013
Metals by ICP/MS	SW60	20 (SW305	0B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.3		mg/Kg-dry	20	8/22/2013
Cadmium	4.1	1.1		mg/Kg-dry	20	8/22/2013
Chromium	28	2.1		mg/Kg-dry	20	8/22/2013
Copper	100	5.4		mg/Kg-dry	20	8/22/2013
Lead	1700	1.1		mg/Kg-dry	20	8/22/2013
Tin	25	11	*	mg/Kg-dry	20	8/22/2013
Zinc	790	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974	ļ		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	16.0	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-510-01(0-6)-081513

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/15/2013 4:50:00 PM

Lab ID: 13080639-033B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 2200
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

K - KFD outside accepted recovery mini

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-511-01(0-6)-081613

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 8:30:00 AM

Lab ID: 13080639-034A **Matrix:** Soil

Analyses	Result	RL Q	Qualifier	· Units	DF I	Date Analyzed
Mercury	SW74	71A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.2	0.021		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	20 (SW305	60B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.4		mg/Kg-dry	20	8/22/2013
Cadmium	1.7	1.1		mg/Kg-dry	20	8/22/2013
Chromium	21	2.2		mg/Kg-dry	20	8/22/2013
Copper	40	5.6		mg/Kg-dry	20	8/22/2013
Lead	210	1.1		mg/Kg-dry	20	8/22/2013
Tin	ND	11	*	mg/Kg-dry	20	8/22/2013
Zinc	170	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974	1		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	15.1	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions **Client Sample ID:** PA-511-01(0-6)-081613

Lab Order: 13080639 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL **Collection Date:** 8/16/2013 8:30:00 AM

Lab ID: 13080639-034B Matrix: Soil

Analyses Result RLQualifier Units DF **Date Analyzed**

Metals by ICP/MS SW6020 (SW3050B) Prep Date: 8/22/2013 Analyst: JG 370 8/22/2013 Lead 4.6 mg/Kg-dry 100

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-512-01(0-6)-081613

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 9:20:00 AM

Lab ID: 13080639-035A **Matrix:** Soil

Analyses	Result	RL (Qualifie	er Units	DF I	Date Analyzed
Mercury	SW747	'1A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.27	0.02		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW602	20 (SW305	50B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.7		mg/Kg-dry	20	8/22/2013
Cadmium	1.7	1.2		mg/Kg-dry	20	8/22/2013
Chromium	19	2.3		mg/Kg-dry	20	8/22/2013
Copper	37	5.9		mg/Kg-dry	20	8/22/2013
Lead	320	1.2		mg/Kg-dry	20	8/22/2013
Tin	ND	12	*	mg/Kg-dry	20	8/22/2013
Zinc	230	12		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974			Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	16.2	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-512-01(0-6)-081613

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 9:20:00 AM

Lab ID: 13080639-035B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 520
 4.6
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-513-01(0-6)-081613

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 9:50:00 AM

Lab ID: 13080639-036A **Matrix:** Soil

Analyses	Result	RL Q	ualifier	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.2	0.022		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	20 (SW3050	0B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.2		mg/Kg-dry	20	8/22/2013
Cadmium	1.4	1		mg/Kg-dry	20	8/22/2013
Chromium	31	2.1		mg/Kg-dry	20	8/22/2013
Copper	45	5.2		mg/Kg-dry	20	8/22/2013
Lead	170	1		mg/Kg-dry	20	8/22/2013
Tin	ND	10	*	mg/Kg-dry	20	8/22/2013
Zinc	200	10		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	19.7	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-513-01(0-6)-081613

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 9:50:00 AM

Lab ID: 13080639-036B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 230
 4.7
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-513-01(0-6)-081613D

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 9:55:00 AM

Lab ID: 13080639-037A **Matrix:** Soil

Analyses	Result	RL (Qualifie r	Units	DF 1	Date Analyzed
Mercury	SW74	171A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.28	0.025		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60)20 (SW305	60B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.2		mg/Kg-dry	20	8/22/2013
Cadmium	1.3	1		mg/Kg-dry	20	8/22/2013
Chromium	23	2.1		mg/Kg-dry	20	8/22/2013
Copper	42	5.2		mg/Kg-dry	20	8/22/2013
Lead	140	1		mg/Kg-dry	20	8/22/2013
Tin	ND	10	*	mg/Kg-dry	20	8/22/2013
Zinc	200	10		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	20.6	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-513-01(0-6)-081613D

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 9:55:00 AM

Lab ID: 13080639-037B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 210
 4.8
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-514-01(0-6)-081613

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 11:25:00 AM

Lab ID: 13080639-038A **Matrix:** Soil

Analyses	Result	RL Ç	Qualifie r	Units	DF I	Date Analyzed
Mercury	SW7471A			Prep Date: 8/20/2013		Analyst: LB
Mercury	0.28	0.024		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	20 (SW305	60B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.3		mg/Kg-dry	20	8/22/2013
Cadmium	2.1	1.1		mg/Kg-dry	20	8/22/2013
Chromium	23	2.1		mg/Kg-dry	20	8/22/2013
Copper	59	5.4		mg/Kg-dry	20	8/22/2013
Lead	410	1.1		mg/Kg-dry	20	8/22/2013
Tin	ND	11	*	mg/Kg-dry	20	8/22/2013
Zinc	370	11		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974	1		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	18.2	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-514-01(0-6)-081613

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 11:25:00 AM

Lab ID: 13080639-038B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 430
 5
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-514-01(6-24)-081613

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 11:30:00 AM

Lab ID: 13080639-039A **Matrix:** Soil

Analyses	Result	RL (Qualifier	Units	DF 1	Date Analyzed
Mercury	SW7471A			Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.63	0.019		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60)20 (SW30	50B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.7		mg/Kg-dry	20	8/22/2013
Cadmium	3.7	1.2		mg/Kg-dry	20	8/22/2013
Chromium	24	2.3		mg/Kg-dry	20	8/22/2013
Copper	92	5.9		mg/Kg-dry	20	8/22/2013
Lead	760	1.2		mg/Kg-dry	20	8/22/2013
Tin	31	12	*	mg/Kg-dry	20	8/22/2013
Zinc	1700	12		mg/Kg-dry	20	8/22/2013
Percent Moisture	D297	4		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	17.9	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-514-01(6-24)-081613

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 11:30:00 AM

Lab ID: 13080639-039B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 830
 4.7
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013

Print Date: August 26, 2013

Client:

Weston Solutions

Client Sample ID: PA-515-01(0-6)-081613

Lab Order:

13080639

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date: 8/16/2013 1:30:00 PM

Lab ID:

13080639-040A

Matrix: Soil

	Trind Lt. Soll							
Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed		
Mercury	SW74	71A		Prep	Date: 8/20/2013	Analyst: LB		
Mercury	0.89 J	0.096		mg/Kg-dry	5	8/21/2013		
Metals by ICP/MS	SW60:	20 (SW30	050B)	Prep	Date: 8/23/2013	Analyst: JG		
Antimony	9.2 ナ	4.8		mg/Kg-dry	20	8/23/2013		
Cadmium	7.4	1.2		mg/Kg-dry	20	8/23/2013		
Chromium	22	2.4		mg/Kg-dry	20	8/23/2013		
Copper	140	6		mg/Kg-dry	20	8/23/2013		
Lead	1600	1.2		mg/Kg-dry	20	8/23/2013		
Tin	29 J	12		mg/Kg-dry	20	8/23/2013		
Zinc	1100	12	1	mg/Kg-dry	20	8/23/2013		
Percent Moisture	D2974			Prep	Date: 8/20/2013	Analyst: SDA		
Percent Moisture	19.1	0.2	*	wt%	1	8/20/2013		

21/ 9/4/13

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-515-01(0-6)-081613

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 1:30:00 PM

Lab ID: 13080639-040B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 1600
 4.9
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-516-01(0-6)-081613

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 2:50:00 PM

Lab ID: 13080639-041A **Matrix:** Soil

Analyses	Result	RL (Qualifier	· Units	DF I	Date Analyzed
Mercury	SW7471A			Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.31	0.026		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	20 (SW30	50B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	4.8		mg/Kg-dry	20	8/22/2013
Cadmium	5.3	1.2		mg/Kg-dry	20	8/22/2013
Chromium	32	2.4		mg/Kg-dry	20	8/22/2013
Copper	70	6		mg/Kg-dry	20	8/22/2013
Lead	520	1.2		mg/Kg-dry	20	8/22/2013
Tin	ND	12	*	mg/Kg-dry	20	8/22/2013
Zinc	500	12		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974	ļ		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	23.3	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-516-01(0-6)-081613

Lab Order: 13080639 **Tag Number:** Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 2:50:00 PM

Lab ID: 13080639-041B **Matrix:** Soil

Analyses Result RL Qualifier Units DF Date Analyzed

 Metals by ICP/MS
 SW6020 (SW3050B)
 Prep Date: 8/22/2013
 Analyst: JG

 Lead
 450
 4.9
 mg/Kg-dry
 100
 8/22/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions Client Sample ID: PA-516-01(0-6)-081613D

Lab Order: 13080639 Tag Number:

Project: Pilsen Soil Site, Pilsen, Chicago, IL Collection Date: 8/16/2013 2:55:00 PM

Lab ID: 13080639-042A **Matrix:** Soil

Analyses	Result	RL Q	ualifier	· Units	DF I	Date Analyzed
Mercury	SW7471A			Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.62	0.022		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SW60	20 (SW305	0B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	5.1		mg/Kg-dry	20	8/22/2013
Cadmium	4.2	1.3		mg/Kg-dry	20	8/22/2013
Chromium	33	2.5		mg/Kg-dry	20	8/22/2013
Copper	67	6.3		mg/Kg-dry	20	8/22/2013
Lead	560	1.3		mg/Kg-dry	20	8/22/2013
Tin	ND	13	*	mg/Kg-dry	20	8/22/2013
Zinc	470	13		mg/Kg-dry	20	8/22/2013
Percent Moisture	D2974	1		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	24.0	0.2	*	wt%	1	8/20/2013

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions **Client Sample ID:** PA-516-01(0-6)-081613D

Lab Order: 13080639 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL **Collection Date:** 8/16/2013 2:55:00 PM

Lab ID: 13080639-042B Matrix: Soil

Analyses Result RLQualifier Units DF **Date Analyzed**

Metals by ICP/MS SW6020 (SW3050B) Prep Date: 8/22/2013 Analyst: JG 470 8/22/2013 Lead 5 mg/Kg-dry 100

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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> Report Date: August 26, 2013 Print Date: August 26, 2013

Client:

Weston Solutions

Client Sample ID: PA-516-01(6-18)-081613

Lab Order:

13080639

Tag Number:

Project:

Pilsen Soil Site, Pilsen, Chicago, IL

Collection Date: 8/16/2013 3:00:00 PM

Lab ID:

13080639-043A

Matrix: Soil

Analyses	Resul	t RL	Qualifie	r Units	DF	Date Analyzed
Mercury	SI	N7471A		Prep	Date: 8/20/2013	Analyst: LB
Mercury	0.5	0.022		mg/Kg-dry	1	8/21/2013
Metals by ICP/MS	SI	N6020 (SW3	050B)	Prep	Date: 8/21/2013	Analyst: JG
Antimony	ND	UJ 4.8	25	mg/Kg-dry	20	8/22/2013
Cadmium	3.2	1.2		mg/Kg-dry	20	8/22/2013
Chromium	24	2.4		mg/Kg-dry	20	8/22/2013
Copper	64	6		mg/Kg-dry	20	8/22/2013
Lead	550	1.2		mg/Kg-dry	20	8/22/2013
Tin	ND	12		mg/Kg-dry	20	8/22/2013
Zinc	610	12		mg/Kg-dry	20	8/22/2013
Percent Moisture	D	2974		Prep	Date: 8/20/2013	Analyst: SDA
Percent Moisture	20.9	0.2		wt%	1	8/20/2013



ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

Report Date: August 26, 2013 **Print Date:** August 26, 2013

Client: Weston Solutions **Client Sample ID:** PA-516-01(6-18)-081613

Lab Order: 13080639 Tag Number: Fine Grained

Project: Pilsen Soil Site, Pilsen, Chicago, IL **Collection Date:** 8/16/2013 3:00:00 PM

Lab ID: 13080639-043B Matrix: Soil

Analyses Result RLQualifier Units DF **Date Analyzed**

Metals by ICP/MS SW6020 (SW3050B) Prep Date: 8/22/2013 Analyst: JG 740 8/22/2013 Lead 5 mg/Kg-dry 100

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

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H-49c-8(18c) - 6831 5-13-13 1530	18- 489-81(6-16)-88HB	145		7777
Right -	M- 490-01(00)-081313			707
10 - 49 - 69 (c/c) - 68 313 3-3-13 1625 163	18-491-01(8-0)-081213			6.65
H-491 - 01 (6-15) - 03/3/10 5-13-13 (6-20) 1/3-13 (0-20)	19-49 - 61 (6-18)-081213	1		1-02
H-495 - 8 (e-0, -8313)	OFIE 60 (6-15) -08,013D	-		25
1-492 - 8 (20-0-6813)	M-48 - 01 (8-6)-081313			377
H-444 -	14-493 - 01 (0-6)-031313	-6		8
H-495 - 8 (6-0) - 68/313	M-44-0 (0-0)-081313	3		0000
H-495-8 (6-24)-68(3)	94-495 - 01 (9-c)-081313	3		100
H-491-8 (P-0)-681313	M-495-81 (G-34)-081313	3		000
H-497 - 01 (P-C) - 03/13/2 S-13-13 (S-C) (S-C) - 03/13/2 S-13-13 S	M-496-818-63-081313	3		Chi
12	M-497-01 (0-6)-081313	3		700
H-499 - 8 (6-15) - 68 313 9-14-13 7-20 7-	-MIG-0-081313	3	X	+55
H-499 - 8 (6-13) - 88 31	- BI (B-O) (NEI) 13 D		X	610
18-749 - 61 (6-6) - 65 413 1000 4	41.130-C1-01 B-02-1317	2		100
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DateTime: Preservation Code: A = None B = HNO, C = NaOH DateTime:	1	1	FIRE HOLES -	ているのという
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THE PLANT OF THE P	Received by (Signature)		= None B = HNO,	Company

STAT Analysis Corporation

2242 W. Harrison, Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386 AIHA, NVLAP and NELAP accredited Stat -mail address: STATinfo@STATAnalysis.com

Turn Around Results Needed ann/pm Received on Loss Yes Vin No. jo Temperature: U H Page: REPORT MS/MSD Remarks 849673 School metals = 10,2 m, Cu, Cr. Hg, Preservation Code: A = Nune B = HNO, C = NAOE D=H,SO, E=HCI F=3033/EnCore G=Other id, Sn, Sb No. CHAIN OF CUSTODY RECORD Quote No.: P.O. No. e-mail: tenge, trable with hos house whing com Containers Date of 16/13 16:42 No.of 8-16-13/16143 Client Tracking No .: Preserv 49-918-4094 Quip Comb Date/Time: Date/Time: Date/Time: Date/Time Date/Time 50.1 XILIEM Phone: මුව 030 355 915 25 935 535 Taken 28 8 85 53 330 200 Fax: Date Taken 8-14-13 Sing & William Bud 8-16-13 9-15-13 2-15-6 5-10-13 5-15-13 5-6-13 5-443 84413 8-15-18 8-15-13 8-5-53 子子 8-10-13 8-16-13 8-12-13 8-15-13 8-15-13 8-15-13 ompany: Wislan Salutions, Inc. A-503 & 140 (6-24) 98143 roject Location: Pilson, Chit argo. Client Sample Number/Description: M-505-01(0-0)-481513D Project Name: Pilson Soil Site 1-881513 10 - 504 - 01(0-0) - 005 0 10 - 505 - 01(0-0) - 00515 1-1005R A-513-01/0-05-08/6130 1-514-01 (6-34)-031613 1-515-01 (0-0-031613 M-587-01(0-6)-08/5/3 -811517 - 509-01(00)-88/513 -510-01(00)-081512 860-8861 - 508-01(634)-08151 (8-6)-CSIMI3 51HW3-(he-3 PA-502-01(0-C)-081413 94-511-01(80)-04(4) 94-512-81(8-0)-08(4) PA-513-B(0-0)-08 1613 Bolle PA-508-01(0-0) 9-505-01(8-6) Relinquished by (Signature) Relinquished by (Signature) (elinquished by: (Signature) Sampler(s): Dave Report To: Renga (Signature) (oceived by: (Signature) (Secented by: (Signature) A-5003-01 18-583-61 -514-18 roject Number: OC Level:

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Serial Number 68017

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TAL 5240-680 (1009)

STAT Analysis Corporation

Sample Receipt Checklist

Client Name WESTON VERNON HILLS			Date and Tim	ne Received:	8/16/2013 4:42:00 PM
Work Order Number 13080839	_		Received by:	DO	
Checklist completed by:		17/13	Reviewed by:	EMIP	820/17 Date
Matrix: Carrier	name <u>Clie</u>	nt Delivere	d		
Shipping container/cooler in good condition?	Yes	✓	No 🗆	Not Present	
Custody seals intact on shippping container/cooler?	Yes		No 🗆	Not Present 🔽	
Custody seals intact on sample bottles?	Yes		No 🗆	Not Present 🗹	
Chain of custody present?	Yes	V	No 🗆		
Chain of custody signed when relinquished and received?	Yes	V	No 🗆		
Chain of custody agrees with sample labels/containers?	Yes	V	No 🗆		
Samples in proper container/bottle?	Yes	V	No 🗆		
Sample containers intact?	Yes	V	No 🗀		
Sufficient sample volume for indicated test?	Yes	V	No 🗔		
All samples received within holding time?	Yes	V	No 🗆		
Container or Temp Blank temperature in compliance?	Yes	☑	No 🗆	Temperature	4.5 °C
Water - VOA vials have zero headspace? No VOA via	ls submitted		Yes 🗌	No 🗆	
Water - Samples pH checked?	Yes	Ø	No 🗔	Checked by:	
Water - Samples properly preserved?	Yes		No 🔲	pH Adjusted?	
Any No response must be detailed in the comments section be	low.				
Comments:					
		-			
Client / Person Date contacted:	f:		Contac	ated by:	
Response:					
		-			

Prep Factor Units:

STAT Analysis Corporation

Prep Start Date: **8/23/2013 11:45:47**Prep End Date: **8/23/2013 2:30:00 P**

Prep Batch 71524	Prep Code:	M_S_PREI	0	Technician: VA		-	mL/g		
Sample ID	Matrix	ЬН	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBS2 8/23/13			1	0	0	20	50.000	8/23/2013	8/23/2013
ILCSS2 8/23/13			1	0	0	20	50.000	8/23/2013	8/23/2013
13080662-001B	Soil		1.05	0	0	20	47.619	8/23/2013	8/23/2013
13080701-001B	Soil		1.065	0	0	20	46.948	8/23/2013	8/23/2013
13080701-002B	Soil		1.121	0	0	20	44.603	8/23/2013	8/23/2013
13080701-003B	Soil		1.054	0	0	20	47.438	8/23/2013	8/23/2013
13080701-003BMS	Soil		1.053	0	0	20	47.483	8/23/2013	8/23/2013
13080701-003BMSD	Soil		1.052	0	0	20	47.529	8/23/2013	8/23/2013
13080701-004B	Soil		1.024	0	0	20	48.828	8/23/2013	8/23/2013
13080701-005B	Soil		1.034	0	0	20	48.356	8/23/2013	8/23/2013
13080701-006B	Soil		1.048	0	0	20	47.710	8/23/2013	8/23/2013
13080701-007B	Soil		1.04	0	0	20	48.077	8/23/2013	8/23/2013
13080701-008B	Soil		1.029	0	0	20	48.591	8/23/2013	8/23/2013
13080807-001A	Soil		1.048	0	0	20	47.710	8/23/2013	8/23/2013
13080807-002A	Soil		1.141	0	0	20	43.821	8/23/2013	8/23/2013
13080807-003A	Soil		1.078	0	0	20	46.382	8/23/2013	8/23/2013
13080768-001B	Soil		1.09	0	0	20	45.872	8/23/2013	8/23/2013
13080768-003B	Soil		1.071	0	0	20	46.685	8/23/2013	8/23/2013
13080768-004B	Soil		1.02	0	0	20	49.020	8/23/2013	8/23/2013
13080768-006B	Soil		1.02	0	0	20	49.020	8/23/2013	8/23/2013
13080768-008B	Soil		1.081	0	0	20	46.253	8/23/2013	8/23/2013
13080639-040A	Soil		1.031	0	0	20	48.497	8/23/2013	8/23/2013
13080639-040AMS	Soil		1.04	0	0	20	48.077	8/23/2013	8/23/2013
13080639-040AMSD	Soil		1.036	0	0	50	48.263	8/23/2013	8/23/2013

Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: 71524

Sample ID	IMBS2 8/23/13	SampType: MBLK	C TestCoc		le: M_ICPMS_S	Units: mg/Kg		Prep Date:	8/23/2013	113	Run ID: ICF	ICPMS_130823A	4
Client ID:	22222	Batch ID: 71524		TestNo: SW6020	3W6020			Analysis Date:	8/23/2013	113	SeqNo: 2500386	98600	
Analyte		Result	t PQL		SPK value SI	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony		ND 0.135	1.0	0 10									
Chromium		0.137											, –,
Copper		Q		~ I									
Lead		0.224	4 0.25	Ŋ									7
Tin		1.592	2 2.5	Ŋ									*>
Zinc		QN	2.5	2									
Sample ID	ILCSS2 8/23/13	SampType: LCS	Test	Code: N	TestCode: M_ICPMS_S	Units: mg/Kg		Prep Date:	8/23/2013)13	Run ID: ICP	ICPMS_130823A	Ą
Client ID:	22222	Batch ID: 71524		TestNo: S	lo: SW6020		`	Analysis Date:	8/23/2013	113	SeqNo: 250	2500387	
Analyte		Result	t PQL		SPK value SI	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony		14.95	5 1.0	0	12.5	0	120	80	120	0	0		
Cadmium		24.66	5 0.25	ıc	25	0.135	98.1	80	120	0	0		
Chromium		25.41	1 0.50	C	25	0.137	101	80	120	0	0		
Copper		25.3	3 1.2	2	25	0	101	80	120	0	0		
Lead		25.23	3 0.25	ις.	25	0.224	100	80	120	0	0		
Tin		14.32		LC C	12.5	1.592	102	80	120	0	0		*
Zinc		23.55	5 2.5	2	25	0	94.2	80	120	0	0		
Sample ID	13080639-040AMS	SampType: MS	TestCoc	Code: N	le: M_ICPMS_S	Units: mg/Kg-dry	-dry	Prep Date:	8/23/2013	113	Run ID: ICP	ICPMS-2_130823A	23A
Client ID:	PA-515-01(0-6)-0816	Batch ID: 71524		TestNo: S	lo: SW6020		`	Analysis Date:	8/23/2013	113	SeqNo: 2500330	00330	
Analyte		Result	t PQL		SPK value SF	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony		21.14	4 4.8	8	14.86	9.154	80.7	22	125	0	0		
Cadmium		36.08		CI.	29.71	7.403	96.5	75	125	0	0		
Chromium		53.16		4	29.71	22.17	104	75	125	0	0		
Copper		179.1		6	29.71	136.9	142	75	125	0	0		S
Lead		1751		2	29.71	1558	649	75	125	0	0		S
Zinc		1031	1 12	CJ	29.71	1052	-70.6	75	125	0	0		S
;					:			;					
Qualifiers:		ND - Not Detected at the Reporting Limit - Analyte detected below quantitation limits	Limit ion limits		S - Spike R - RPD o	S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits	accepted re	covery limits		B - Analyte deter F - Value above	 Analyte detected in the associated Method Blank Value above quantitation range 	ociated Metho	d Blank
	* - Non Accred	* - Non Accredited Parameter			H/HT - H	H/HT - Holding Time Exceeded	eded				damining in i	٠ م	

Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: 71524

Sample ID Client ID:	Sample ID 13080639-040AMS SampType: MS Client ID: PA-515-01(0-6)-0816 Batch ID: 71524		TestCode: M_ICPMS_S TestNo: SW6020	Units: mg/Kg-dry	Prep Date: Analysis Date:		8/23/2013 8/23/2013	Run ID: ICPMS_SeqNo: 2500421	Run ID: ICPMS_130823A SeqNo: 2500421	4
Analyte	Result	ult PQL	SPK value S	SPK Ref Val	%REC LowLimit	t HighLimit	t RPD Ref Val	%RPD	RPDLimit	Qual
Tin	68.52	52 12	14.86	28.9	267 75	125	2 0	0		*S
Sample ID	Sample ID 13080639-040AMSD SampType: MSD		TestCode: M_ICPMS_S	Units: mg/Kg-dry	Prep Date:		8/23/2013	Run ID: ICP	ICPMS-2_130823A	23A
Client ID:	PA-515-01(0-6)-0816 Batch ID: 71524		TestNo: SW6020		Analysis Date:		8/23/2013	SeqNo: 2500332	00332	
Analyte	Result	ult PQL	SPK value S	SPK Ref Val	%REC LowLimit	t HighLimit	t RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	20.46	46 4.8	14.91	9.154	75.8 75	125	5 21.14	3.31	20	
Cadmium	38.45	1.2	29.83	7.403	104 75	125	5 36.08	6.36	20	
Chromium	56.9	2.4	29.83	22.17	116 75	125	5 53.16	08.9	20	
Copper	199.7	0.9 6.0	29.83	136.9	211 75	125	5 179.1	10.9	20	S
Lead	2347	47 1.2	29.83	1558 2	2640 75	125	5 1751	29.1	20	SR
Zinc	1139	39 12	29.83	1052	291 75	125	5 1031	9.93	20	S
Sample ID	Sample ID 13080639-040AMSD SampType: MSD		TestCode: M_ICPMS_S	Units: mg/Kg-dry	Prep Date:		8/23/2013	Run ID: ICP	Run ID: ICPMS_130823A	∢
Client ID:	PA-515-01(0-6)-0816 Batch ID: 71524		TestNo: SW6020		Analysis Date:		8/23/2013	SeqNo: 2500422	0422	
Analyte	Result	ult PQL	SPK value S	SPK Ref Val	%REC LowLimit	LowLimit HighLimit	t RPD Ref Val	%RPD	RPDLimit	Qual
Tin	41.16	16 12	14.91	28.9	82.2 75	125	5 68.52	49.9	20	<u>*</u>

H/HT - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

Qualifiers:

* - Non Accredited Parameter

B - Analyte detected in the associated Method Blank E - Value above quantitation range

STAT Analysis Corporation

Prep Start Date: **8/21/2013 9:40:03 A**Prep End Date: **8/21/2013 4:50:00 P**

Prep Factor Units: mL/g Technician: VA Prep Code: M S PREP Prep Batch **71436**

)		
Sample ID	Matrix	рН	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBS3 8/20/13			1	0	0	20	50.000	8/20/2013	8/20/2013
ILCSS3 8/20/13			1	0	0	20	50.000	8/20/2013	8/20/2013
13080637-001B	Soil		1.094	0	0	20	45.704	8/20/2013	8/20/2013
13080637-001BMS	Soil		1.074	0	0	20	46.555	8/20/2013	8/20/2013
13080637-001BMSD	Soil		1.076	0	0	20	46.468	8/20/2013	8/20/2013
13080598-001A	Solid		1.029	0	0	20	48.591	8/20/2013	8/20/2013
13080598-002A	Solid		1.004	0	0	20	49.801	8/20/2013	8/20/2013
13080598-003A	Solid		0.516	0	0	20	96.899	8/20/2013	8/20/2013
13080598-004A	Solid		0.992	0	0	20	50.403	8/20/2013	8/20/2013
13080681-001B	Soil		1.071	0	0	20	46.685	8/20/2013	8/20/2013
13080682-001A	Soil		1.13	0	0	20	44.248	8/20/2013	8/20/2013
13080692-001A	Soil		1.075	0	0	50	46.512	8/20/2013	8/20/2013
13080639-041A	Soil		1.079	0	0	20	46.339	8/21/2013	8/21/2013
13080639-042A	Soil		1.041	0	0	20	48.031	8/21/2013	8/21/2013
13080639-043A	Soil		1.033	0	0	50	48.403	8/21/2013	8/21/2013
13080639-043AMS	Soil		1.034	0	0	50	48.356	8/21/2013	8/21/2013
13080639-043AMSD	Soil		1.031	0	0	50	48.497	8/21/2013	8/21/2013
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TestCode: M_ICPMS_S Units: mg/Kg TestCode: M_ICPMS_S Units: mg/Kg 0.142 0.2965 0.196 SPK value SPK Ref Val SPK Ref Val SPK value 12.5 25 25 25 25 25 25 TestNo: SW6020 TestNo: SW6020 0.25 2.5 0.25 0.50 4. 1.0 0.25 0.50 1.2 В В Pilsen Soil Site, Pilsen, Chicago, IL 0.2965 0.196 0.184 1.526 24.58 25.04 Result 0.142 Result 4. 4. 23.73 Θ SampType: MBLK Batch ID: 71436 Batch ID: 71436 SampType: LCS Weston Solutions

Chromium

Copper

Lead

Zinc

Ę

Cadmium

Antimony

Analyte

Qual

RPDLimit

%RPD

RPD Ref Val

LowLimit HighLimit

%REC

Run ID: ICPMS_130821B

Prep Date: 8/20/2013 Analysis Date: 8/21/2013

SeqNo: 2498757

¬ * \neg

ANALYTICAL QC SUMMARY REPORT

13080639

Work Order: CLIENT:

Project:

Sample ID IMBS3 8/20/13

Client ID: ZZZZZ

71436

BatchID:

Qual

RPDLimit

%RPD

RPD Ref Val

HighLimit

LowLimit

%REC

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000000

120 120 120 120 120 120

94.4 97.2 99.4

98.5 96.8

24.8 13.63

Chromium

Copper

Lead

Zinc ≟

Cadmium

Antimony

Analyte

1.526 0.184

Run ID: ICPMS_130821B

Prep Date: 8/20/2013 Analysis Date: 8/21/2013

Sample ID ILCSS3 8/20/13

Client ID: ZZZZZ

SeqNo: 2498758

Sample ID	Sample ID 13080637-001BMS	SampType: MS	TestCoo	de: M_ICPMS	TestCode: M_ICPMS_S Units: mg/Kg-dry	y-dry	Prep Date:	8/20/2013		Run ID: ICPMS_130821B	MS_130821	m
Client ID:	ZZZZZ	Batch ID: 71436	Test	TestNo: SW6020			Analysis Date: 8/21/2013	8/21/2013		SeqNo: 2498764	8764	
Analyte		Result	PQL	SPK value	SPK value SPK Ref Val	%REC	LowLimit Hię	LowLimit HighLimit RPD Ref Val	ıf Val	%RPD	%RPD RPDLimit	Qual
Antimony		2.31	2.2	13.89	0	16.6	75	125	0	0		S
Cadmium		26.78	0.56	27.78	0.7205	93.8	75	125	0	0		
Chromium		42.98	7.	27.78	18.55	88	75	125	0	0		
Copper		44.62	2.8	27.78	23.38	76.5	75	125	0	0		
Lead		40.41	0.56	27.78	15.27	90.5	75	125	0	0		
Tin		12.73	5.6	13.89	0	91.6	75	125	0	0		*
Zinc		73.05	5.6	27.78	50.26	82.1	75	125	0	0		
Qualifiers:		ND - Not Detected at the Reporting Limit		S - Spil	S - Spike Recovery outside accepted recovery limits	accepted re	covery limits	B - Analy	te detect	B - Analyte detected in the associated Method Blank	iated Method	Blank
	J - Analyte det	J - Analyte detected below quantitation limits	ts	R - RP	R - RPD outside accepted recovery limits	ecovery lim	iits	E - Value	above qu	E - Value above quantitation range	že	

H/HT - Holding Time Exceeded

Weston Solutions 13080639 Work Order: CLIENT:

Pilsen Soil Site, Pilsen, Chicago, IL Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: 71436

Sample ID	13080639-043AMS	SampType: MS	MS	TestCod	le: M_ICPMS_S	S Units: mg/Kg-dry	ı/Kg-dry	Prep Date:	8/21/2013	113	Run ID: ICE	ICPMS-2_130822A	122A
Client ID:	PA-516-01(6-18)-081	Batch ID:	71436	TestN	lo: SW6020			Analysis Date:	e: 8/22/2013	113	SeqNo: 2499197	99197	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony			9.087	4.8	14.91	0	61	75	125	0	0		S
Cadmium			32.69	1.2	29.81	3.232	98.8	75	125	0	0		
Chromium			51.27	2.4	29.81	23.6	92.8	75	125	0	0		
Copper			94.39	0.9	29.81	63.68	103	75	125	0	0		
Lead			729.8	1.2	29.81	547	613	75	125	0	0		S
Tin			28.33	12	14.91	9.573	126	75	125	0	0		*S
Zinc			650.5	12	29.81	209	146	75	125	0	0		S
Sample ID	13080637-001BMSD	SampType:	MSD	TestCod	TestCode: M_ICPMS_S	S Units: mg/Kg-dry	ı/Kg-dry	Prep Date:	8/20/2013)13	Run ID: ICE	ICPMS_130821B	B
Client ID:	ZZZZZ	Batch ID:	71436	TestN	TestNo: SW6020			Analysis Date:	e: 8/21/2013	113	SeqNo: 2498765	98765	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony			2.339	2.2	13.86	0	16.9	75	125	2.31	1.25	20	S
Cadmium			27.2	0.55	27.73	0.7205	95.5	75	125	26.78	1.54	20	
Chromium			43.71	- -	27.73	18.55	2.06	75	125	42.98	1.67	20	
Copper			47.42	2.8	27.73	23.38	86.7	75	125	44.62	60.9	20	
Lead			42.39	0.55	27.73	15.27	97.8	75	125	40.41	4.79	20	
Ţ			13.19	5.5	13.86	0	95.1	75	125	12.73	3.54	20	*
Zinc			77.35	5.5	27.73	50.26	97.7	75	125	73.05	5.72	20	
Sample ID	13080639-043AMSD	SampType:	MSD	TestCod	le: M_ICPMS_S	S Units: mg/Kg-dry	ı/Kg-dry	Prep Date:	8/21/2013	113	Run ID: ICE	ICPMS-2_130822A	122A
Client ID:	PA-516-01(6-18)-081	Batch ID:	71436	TestN	lo: SW6020			Analysis Date:	e: 8/22/2013	113	SeqNo: 2499198	99198	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony			8.234	8.4	14.95	0	55.1	75	125	9.087	9.84	20	S
Cadmium			33.04	1.2	29.9	3.232	2.66	75	125	32.69	1.05	20	
Chromium			54.42	2.4	29.9	23.6	103	75	125	51.27	5.95	20	
Copper			101.6	0.9	29.9	63.68	127	75	125	94.39	7.36	20	S
Lead			690.1	1.2	29.9	547	479	75	125	729.8	5.60	20	S
Tin			32.28	12	14.95	9.573	152	75	125	28.33	13.0	20	%
Zinc			654.2	12	29.9	209	158	75	125	650.5	0.565	20	S
Qualifiers:	: ND - Not Detected at the Reporting Limit	cted at the Re	oorting Limit		S - Spike	S - Spike Recovery outside accepted recovery limits	side accepted 1	recovery limits		B - Analyte det	- Analyte detected in the associated Method Blank	ciated Metho	d Blank
	J - Analyte det	ected below qu	J - Analyte detected below quantitation limits		R - RPD	R - RPD outside accepted recovery limits	ted recovery lii	mits	. 7	E - Value above	E - Value above quantitation range	ıge	
	* - Non Accredited Parameter	lited Paramete	Ŧ		H/HT - I	H/HT - Holding Time Exceeded	Exceeded						

STAT Analysis Corporation

8/20/2013 4:30:20 P 8/20/2013 7:10:00 P Prep Start Date:

Prep End Date:

8/20/2013 PrepEnd 8/20/2013 **PrepStart** 8/20/2013 Prep Factor Units: 45.005 47.710 48.170 50.000 50.000 46.168 49.456 48.309 44.643 44.092 41.152 42.662 46.729 49.358 48.309 48.309 48.356 47.393 42.194 44.883 44.444 46.253 44.287 41.597 factor mL/g 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 Fin Vol 20 20 20 20 20 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Sol Recov Technician: VA 0 Sol Added 1.125 1.12 1.048 1.215 1.038 1.035 1.185 1.083 1.035 1.134 1.172 1.129 1.202 1.013 1.035 1.034 1.055 1.114 1.07 SampAmt 1.081 1.011 1.111 Prep Code: M_S_PREP 된 Matrix Soil Prep Batch 71437 13080639-017AMSD 13080639-017AMS 13080639-001A 13080639-004A 13080639-009A 13080639-010A 13080639-011A 13080639-012A 13080639-013A 13080639-014A 13080639-015A 13080639-016A 13080639-017A 13080639-018A 13080639-019A 13080639-020A 13080639-002A 13080639-003A 13080639-005A 13080639-006A 13080639-007A 13080639-008A ILCSS4 8/20/13 IMBS4 8/20/13 Sample ID

CLIENT:

Weston Solutions 13080639 Work Order:

Pilsen Soil Site, Pilsen, Chicago, IL Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: 71437

	IMBS4 8/20/13	SampType: MBLK	TestCoo	TestCode: M_ICPMS_S	S Units: mg/Kg		Prep Date:	8/20/2013		Run ID: ICPI	ICPMS_130820A	4
	77777	batch ID: 71437	lestiv	10: SW6020		•	Analysis Date:			Sedivo: 249/284	1284	
Analyte		Result	Pal	SPK value S	SPK Ref Val	%REC	LowLimit	HighLimit RPD	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony		Q 2	1.0									
Chromium		0.081	0.50									7
Copper		QN	1.2									
Lead		Q	0.25									
띹		2.052	2.5									*
Zinc		QN	2.5									
Sample ID	ILCSS4 8/20/13	SampType: LCS	TestCod	TestCode: M_ICPMS_S	S Units: mg/Kg		Prep Date:	8/20/2013		Run ID: ICPI	ICPMS_130821A	<
Client ID:	ZZZZZ	Batch ID: 71437	TestN	TestNo: SW6020		1	Analysis Date:	8/21/2013		SedNo: 249 8	2498116	
Analyte		Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit	HighLimit RPD	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony		14.32	1.0	12.5	0	115	80	120	0	0		
Cadmium		23.43	0.25	25	0	93.7	80	120	0	0		
Chromium		24.32	0.50	25	0.081	26	80	120	0	0		
Copper		24.28	1.2	25	0	97.1	80	120	0	0		
Lead		24.38	0.25	25	0	97.5	80	120	0	0		
Tin		13.38	2.5	12.5	2.052	9.06	80	120	0	0		*
Zinc		22.8	2.5	25	0	91.2	80	120	0	0		
Sample ID	13080639-017AMS	SampType: MS	TestCod	TestCode: M_ICPMS_S	S Units: mg/Kg-dry	-dry	Prep Date:	8/20/2013		Run ID: ICPI	ICPMS_130820A	4
Client ID:	PA-499-01(0-6)-0814	4 Batch ID: 71437	TestN	TestNo: SW6020		1	Analysis Date:	8/21/2013		SeqNo: 2497290	7290	
Analyte		Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit	HighLimit RPD	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		108.1	14	28.19	85.57	80	75	125	0	0		
Sample ID	13080639-017AMS	SampType: MS	TestCod	TestCode: M_ICPMS_S	S Units: mg/Kg-dry	-dry	Prep Date:	8/20/2013		Run ID: ICPI	ICPMS-2_130822A	22A
Client ID:	PA-499-01(0-6)-0814	4 Batch ID: 71437	TestN	TestNo: SW6020		4	Analysis Date:	8/22/2013		SeqNo: 2499206	9206	
Analyte		Result	Pal	SPK value S	SPK Ref Val	%REC	LowLimit	HighLimit RPD	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony		10.25	4.5	14.09	2.141	9'.29	75	125	0	0		S
Qualifiers:		ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits * - Non Accredited Parameter	its	S - Spike R - RPD H/HT - H	S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits H/HT - Holding Time Exceeded	accepted re scovery lim	covery limits its	B - A E - V;	nalyte deteci alue above qı	B - Analyte detected in the associated Method Blank E - Value above quantitation range	siated Methoc ge	l Blank

Weston Solutions CLIENT:

13080639 Work Order: Pilsen Soil Site, Pilsen, Chicago, IL Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: 71437

Sample ID	S		FestCode	TestCode: M_ICPMS_S	Units: mg/Kg-dry		Prep Date:		9	Run ID: ICPMS-2_130822A	MS-2_13082	2A
Client ID:	PA-499-01(0-6)-0814 Batch ID: 71437	437	TestNo	TestNo: SW6020			Analysis Date:	8/22/2013	က	SeqNo: 2499206	9206	
Analyte	R	Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium		31.6	1.1	28.19	2.488	103	75	125	0	0		
Chromium	8	39.58	2.3	28.19	14.41	89.3	75	125	0	0		
Lead	O)	940.8	[.	28.19	1153	-754	75	125	0	0		S
Tin	4	40.64	7	14.09	25.54	107	75	125	0	0		*
Zinc	9	640.9	1	28.19	497.4	209	75	125	0	0		S
Sample ID	Sample ID 13080639-017AMSD SampType: MSD	·	FestCode	TestCode: M_ICPMS_S	Units: mg/Kg-dry	-dry	Prep Date:	8/20/2013	9	Run ID: ICP	ICPMS_130820A	
Client ID:	PA-499-01(0-6)-0814 Batch ID: 71437	437	TestNo	TestNo: SW6020			Analysis Date:	8/21/2013	ဗ	SeqNo: 2497291	7291	
Analyte	œ	Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit HighLimit		RPD Ref Val	%RPD	RPDLimit	Qual
Copper	1	112.3	4	28.21	85.57	94.9	75	125	108.1	3.83	20	
Sample ID	Sample ID 13080639-017AMSD SampType: MSD		FestCode	TestCode: M_ICPMS_S	Units: mg/Kg-dry	-dry	Prep Date:	8/20/2013	3	Run ID: ICP	Run ID: ICPMS-2_130822A	2A
Client ID:	PA-499-01(0-6)-0814 Batch ID: 71437	437	TestNo	TestNo: SW6020			Analysis Date:	8/22/2013	ဗ	SeqNo: 2499208	9208	
Analyte	R	Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony		10.8	4.5	14.11	2.141	61.4	75	125	10.25	5.19	20	S
Cadmium	8	30.87	1 .	28.21	2.488	101	75	125	31.6	2.32	20	
Chromium	4	41.12	2.3	28.21	14.41	94.6	75	125	39.58	3.81	20	
Lead		988	[.	28.21	1153	-586	75	125	940.8	4.89	20	S
Tin	3	32.57	7	14.11	25.54	49.9	75	125	40.64	22.0	20	SR*
Zinc	4)	564.2	7	28.21	497.4	237	75	125	640.9	12.7	20	S

B - Analyte detected in the associated Method Blank E - Value above quantitation range S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits H/HT - Holding Time Exceeded J - Analyte detected below quantitation limits ND - Not Detected at the Reporting Limit * - Non Accredited Parameter Qualifiers:

Prep Factor Units:

STAT Analysis Corporation

Prep Start Date: **8/21/2013 9:40:45 A**Prep End Date: **8/21/2013 12:55:00**

Interest of partial and interest of partial and interest of partial and interest or partial and interes	Prep Batch 71453	Prep Code:	: M_S_PRE	Ь	Technician: VA			mL/g		
Soli 1 0 0 50 60.000 821/2013 Soli 1 0 0 50 650.000 821/2013 Soli 1,1081 0 0 50 45.830 821/2013 Soli 1,137 0 0 50 45.830 821/2013 Soli 1,112 0 0 50 49.964 821/2013 Soli 1,112 0 0 0 50 44.964 821/2013 Soli 1,105 0 0 0 6 49.761 821/2013 Soli 1,106 0 0 50 48.946 821/2013 Soli 1,1197 0 0 50 48.946 821/2013 Soli 1,1197 0 0 50 48.946 821/2013 Soli 1,1197 0 0 50 48.946 821/2013 Soli 1,108 0 0 0	Sample ID	Matrix	На	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
Soil 1 0 0 50 60 000 82/1/2013 Soil 1,091 0 6 65 45,830 8/21/2013 Soil 1,137 0 0 6 45,830 8/21/2013 Soil 1,132 0 0 6 43,975 8/21/2013 Soil 1,112 0 0 6 43,975 8/21/2013 Soil 1,105 0 0 50 44,964 8/21/2013 Soil 1,105 0 0 50 44,964 8/21/2013 Soil 1,105 0 0 0 50 44,964 8/21/2013 Soil 1,105 0 0 0 50 44,964 8/21/2013 Soil 1,105 0 0 0 50 48,21/2013 Soil 1,107 0 0 50 48,17 8/21/2013 Soil 1,104 0 0 50	IMBS1 8/21/13			1	0	0	20	50.000	8/21/2013	8/21/2013
Soil 1.091 0 6 45.830 82/12/2013 Soil 1.137 0 0 50 43.975 8/21/2013 Soil 1.102 0 0 50 49.020 8/21/2013 Soil 1.112 0 0 0 49.020 8/21/2013 Soil 1.035 0 0 6 49.020 8/21/2013 Soil 1.016 0 0 0 44.964 8/21/2013 Soil 1.016 0 0 0 44.964 8/21/2013 Soil 1.016 0 0 0 48.21/2013 Soil 1.016 0 0 48.21/2013 Soil 1.117 0 0 50 48.90 Soil 1.118 0 0 6 48.91 8/21/2013 Soil 1.139 0 0 0 48.91 8/21/2013 Soil 1.184 0 0 <td>ILCSS1 8/21/13</td> <td></td> <td></td> <td>1</td> <td>0</td> <td>0</td> <td>20</td> <td>50.000</td> <td>8/21/2013</td> <td>8/21/2013</td>	ILCSS1 8/21/13			1	0	0	20	50.000	8/21/2013	8/21/2013
Soil 1,137 0 6 43,97 821/2013 Soil 1,102 0 0 49,02 821/2013 Soil 1,112 0 0 6 49,02 821/2013 Soil 1,112 0 0 0 4,964 821/2013 Soil 1,016 0 0 6 4,964 821/2013 Soil 1,116 0 0 6 4,964 821/2013 Soil 1,106 0 0 6 4,184 821/2013 Soil 1,106 0 0 6 4,184 821/2013 Soil 1,197 0 0 6 4,184 821/2013 Soil 1,197 0 0 0 4,184 821/2013 Soil 1,110 0 0 0 4,184 821/2013 Soil 1,118 0 0 0 4,184 821/2013 Soil <th< td=""><td>13080639-021A</td><td>Soil</td><td></td><td>1.091</td><td>0</td><td>0</td><td>20</td><td>45.830</td><td>8/21/2013</td><td>8/21/2013</td></th<>	13080639-021A	Soil		1.091	0	0	20	45.830	8/21/2013	8/21/2013
Soil 1,02 0 0 6 49,02 81212013 Soil 1,112 0 0 44,964 81212013 Soil 1,035 0 0 48,306 81212013 Soil 1,035 0 0 48,306 81212013 Soil 1,016 0 0 49,213 81212013 Soil 1,105 0 0 49,214 81212013 Soil 1,104 0 0 49,514 81212013 Soil 1,104 0 0 49,514 81212013 Soil 1,104 0 0 49,504 81212013 Soil 1,104 0 0 46,904 81212013 Soil 1,104 <td>13080639-022A</td> <td>Soil</td> <td></td> <td>1.137</td> <td>0</td> <td>0</td> <td>20</td> <td>43.975</td> <td>8/21/2013</td> <td>8/21/2013</td>	13080639-022A	Soil		1.137	0	0	20	43.975	8/21/2013	8/21/2013
Soil 1.112 0 0 6 44.964 8/21/2013 Soil 1.035 0 0 50 48.309 8/21/2013 Soil 1.016 0 0 50 49.213 8/21/2013 Soil 1.016 0 0 50 49.213 8/21/2013 Soil 1.005 0 0 50 49.751 8/21/2013 Soil 1.14 0 0 0 50 46.904 8/21/2013 Soil 1.14 0 0 0 50 46.904 8/21/2013 Soil 1.13 0 0 50 46.904 8/21/2013 Soil 1.11 0 0 50 48.97 8/21/2013 Soil 1.119 0 0 50 49.16 8/21/2013 Soil 1.041 0 0 50 49.16 8/21/2013 Soil 1.019 0 0 50	13080639-023A	Soil		1.02	0	0	20	49.020	8/21/2013	8/21/2013
Soil 1,035 0 0 50 48.309 8/21/2013 Soil 1,016 0 0 50 49.213 8/21/2013 Soil 1,195 0 0 50 41.841 8/21/2013 Soil 1,105 0 0 50 41.841 8/21/2013 Soil 1,14 0 0 0 50 48.975 8/21/2013 Soil 1,14 0 0 0 50 46.904 8/21/2013 Soil 1,197 0 0 50 46.904 8/21/2013 Soil 1,108 0 0 50 46.904 8/21/2013 Soil 1,108 0 0 50 46.904 8/21/2013 Soil 1,111 0 0 50 45.005 8/21/2013 Soil 1,139 0 0 50 47.17 8/21/2013 Soil 1,1384 0 0 0	13080639-024A	Soil		1.112	0	0	20	44.964	8/21/2013	8/21/2013
Soil 1.016 0 6 49,213 81/21/2013 Soil 1.195 0 0 50 49,213 81/21/2013 Soil 1.005 0 0 50 49,751 81/21/2013 Soil 1.005 0 0 50 43,860 81/21/2013 Soil 1.066 0 0 50 45,964 81/21/2013 Soil 1.021 0 0 50 46,904 81/21/2013 Soil 1.021 0 0 50 46,904 81/21/2013 Soil 1.101 0 0 50 45,005 81/21/2013 Soil 1.018 0 0 50 41,717 81/21/2013 Soil 1.108 0 0 50 41,494 81/21/2013 Soil 1.139 0 0 50 41,494 81/21/2013 Soil 1.184 0 0 0 50 43,898<	13080639-025A	Soil		1.035	0	0	20	48.309	8/21/2013	8/21/2013
Soil 1.195 0 6 41.841 8/21/2013 Soil 1.005 0 6 49.751 8/21/2013 Soil 1.104 0 0 50 49.751 8/21/2013 Soil 1.066 0 0 6 45.904 8/21/2013 Soil 1.107 0 0 50 46.904 8/21/2013 Soil 1.107 0 0 50 46.904 8/21/2013 Soil 1.111 0 0 50 48.972 8/21/2013 Soil 1.018 0 0 50 47.710 8/21/2013 Soil 1.018 0 0 50 47.170 8/21/2013 Soil 1.205 0 0 50 49.116 8/21/2013 Soil 1.139 0 0 50 41.494 8/21/2013 Soil 1.144 0 0 50 43.896 8/21/2013	13080639-026A	Soil		1.016	0	0	50	49.213	8/21/2013	8/21/2013
Soil 1.005 0 6 49.751 8/21/2013 Soil 1.14 0 0 50 49.751 8/21/2013 Soil 1.066 0 0 50 46.904 8/21/2013 Soil 1.197 0 0 50 46.904 8/21/2013 Soil 1.1021 0 0 6 48.972 8/21/2013 Soil 1.111 0 0 0 8/21/2013 8/21/2013 Soil 1.018 0 0 6 45.005 8/21/2013 Soil 1.19 0 0 50 49.16 8/21/2013 Soil 1.139 0 0 50 43.948 8/21/2013 Soil 1.139 0 0 50 43.948 8/21/2013 Soil 1.144 0 0 6 43.948 8/21/2013 Soil 1.139 0 0 43.948 8/21/2013	13080639-027A	Soil		1.195	0	0	20	41.841	8/21/2013	8/21/2013
Soil 1.14 0 0 50 43.860 8/21/2013 Soil 1.066 0 0 6 46.904 8/21/2013 Soil 1.197 0 0 50 46.904 8/21/2013 Soil 1.021 0 0 50 48.972 8/21/2013 Soil 1.111 0 0 50 48.972 8/21/2013 Soil 1.018 0 0 50 45.005 8/21/2013 Soil 1.018 0 0 50 49.116 8/21/2013 Soil 1.139 0 0 50 49.116 8/21/2013 Soil 1.139 0 0 50 43.898 8/21/2013 Soil 1.139 0 0 50 48.031 8/21/2013 Soil 1.184 0 0 6 48.031 8/21/2013 Soil 1.184 0 0 50 42.230	13080639-028A	Soil		1.005	0	0	20	49.751	8/21/2013	8/21/2013
Soil 1.066 0 0 66 46.904 8/21/2013 Soil 1.197 0 0 46.904 8/21/2013 Soil 1.021 0 0 48.972 8/21/2013 Soil 1.111 0 0 50 45.005 8/21/2013 Soil 1.018 0 0 50 47.170 8/21/2013 Soil 1.19 0 0 50 49.116 8/21/2013 Soil 1.139 0 0 50 41.494 8/21/2013 Soil 1.041 0 0 50 41.494 8/21/2013 Soil 1.184 0 0 50 43.898 8/21/2013 Soil 1.184 0 0 50 48.031 8/21/2013 Soil 1.187 0 0 50 42.230 8/21/2013 Soil 1.187 0 0 0 42.230 8/21/2013	13080639-029A	Soil		1.14	0	0	20	43.860	8/21/2013	8/21/2013
Soil 1.197 0 60 50 41.771 8/21/2013 Soil 1.021 0 0 50 48.972 8/21/2013 Soil 1.111 0 0 50 45.065 8/21/2013 Soil 1.018 0 0 50 45.016 8/21/2013 Soil 1.19 0 0 50 49.116 8/21/2013 Soil 1.205 0 0 50 41.494 8/21/2013 Soil 1.139 0 0 50 43.898 8/21/2013 Soil 1.184 0 0 50 48.031 8/21/2013 Soil 1.184 0 0 50 48.230 8/21/2013 Soil 1.184 0 0 50 42.230 8/21/2013 Soil 1.182 0 6 42.230 8/21/2013 8/21/2013 Soil 1.187 0 0 6 42.230	13080639-030A	Soil		1.066	0	0	20	46.904	8/21/2013	8/21/2013
Soil 1.021 0 0 50 48.972 8/21/2013 Soil 1.111 0 0 50 45.005 8/21/2013 Soil 1.06 0 0 50 47.170 8/21/2013 Soil 1.018 0 0 50 49.116 8/21/2013 Soil 1.205 0 0 50 41.494 8/21/2013 Soil 1.139 0 0 50 43.898 8/21/2013 Soil 1.041 0 0 50 42.391 8/21/2013 Soil 1.184 0 0 50 42.331 8/21/2013 Soil 1.182 0 0 50 42.331 8/21/2013 Soil 1.184 0 0 50 42.331 8/21/2013 Soil 1.187 0 0 50 42.331 8/21/2013	13080639-031A	Soil		1.197	0	0	20	41.771	8/21/2013	8/21/2013
Soil 1.111 0 0 50 45.005 8/21/2013 Soil 1.06 0 0 47.170 8/21/2013 Soil 1.018 0 0 50 49.116 8/21/2013 Soil 1.19 0 0 50 41.494 8/21/2013 Soil 1.139 0 0 50 43.898 8/21/2013 Soil 1.184 0 0 50 48.031 8/21/2013 Soil 1.182 0 0 50 42.230 8/21/2013 Soil 1.187 0 0 80 42.301 8/21/2013	13080639-032A	Soil		1.021	0	0	20	48.972	8/21/2013	8/21/2013
Soil 1.06 0 0 50 47.170 8/21/2013 Soil 1.018 0 0 50 49.116 8/21/2013 Soil 1.205 0 0 50 41.494 8/21/2013 Soil 1.139 0 0 50 41.494 8/21/2013 Soil 1.041 0 0 50 48.031 8/21/2013 Soil 1.184 0 0 50 42.230 8/21/2013 Soil 1.182 0 0 8/21/2013 8/21/2013 Soil 1.187 0 0 50 42.301 8/21/2013	13080639-033A	Soil		1.111	0	0	20	45.005	8/21/2013	8/21/2013
Soil 1.018 0 0 50 49.116 8/21/2013 Soil 1.19 0 0 50 42.017 8/21/2013 8 Soil 1.205 0 0 50 41.494 8/21/2013 8 Soil 1.041 0 0 50 48.031 8/21/2013 8 Soil 1.184 0 0 50 42.230 8/21/2013 8 Soil 1.182 0 0 6 42.301 8/21/2013 8 Soil 1.187 0 0 50 42.301 8/21/2013 8	13080639-034A	Soil		1.06	0	0	20	47.170	8/21/2013	8/21/2013
Soil 1.19 0 0 50 42.017 8/21/2013 Soil 1.205 0 0 50 41.494 8/21/2013 Soil 1.139 0 0 50 48.031 8/21/2013 Soil 1.041 0 0 50 48.031 8/21/2013 Soil 1.184 0 0 50 42.230 8/21/2013 Soil 1.182 0 0 8/21/2013 8/21/2013 Soil 1.187 0 0 50 42.301 8/21/2013	13080639-035A	Soil		1.018	0	0	20	49.116	8/21/2013	8/21/2013
Soil 1.205 0 0 50 41.494 8/21/2013 Soil 1.139 0 0 50 43.898 8/21/2013 Soil 1.041 0 0 50 48.031 8/21/2013 Soil 1.184 0 0 50 42.230 8/21/2013 Soil 1.182 0 0 6 42.301 8/21/2013 Soil 1.187 0 0 50 42.123 8/21/2013	13080639-036A	Soil		1.19	0	0	20	42.017	8/21/2013	8/21/2013
Soil 1.139 0 0 50 43.898 8/21/2013 Soil 1.041 0 0 50 48.031 8/21/2013 Soil 1.184 0 0 50 42.230 8/21/2013 Soil 1.182 0 0 50 42.301 8/21/2013 Soil 1.187 0 0 50 42.123 8/21/2013	13080639-037A	Soil		1.205	0	0	20	41.494	8/21/2013	8/21/2013
Soil 1.041 0 0 6 48.031 8/21/2013 Soil 1.184 0 0 50 42.230 8/21/2013 Soil 1.182 0 0 50 42.301 8/21/2013 Soil 1.187 0 0 50 42.123 8/21/2013	13080639-038A	Soil		1.139	0	0	20	43.898	8/21/2013	8/21/2013
Soil 1.184 0 0 50 42.230 8/21/2013 Soil 1.182 0 0 50 42.301 8/21/2013 Soil 1.187 0 0 50 42.123 8/21/2013	13080639-039A	Soil		1.041	0	0	20	48.031	8/21/2013	8/21/2013
Soil 1.182 0 0 50 42.301 8/21/2013 Soil 1.187 0 0 50 42.123 8/21/2013	13080639-040A	Soil		1.184	0	0	20	42.230	8/21/2013	8/21/2013
Soil 1.187 0 0 50 42.123 8/21/2013	13080639-040AMS	Soil		1.182	0	0	20	42.301	8/21/2013	8/21/2013
	13080639-040AMSD	Soil		1.187	0	0	20	42.123	8/21/2013	8/21/2013

Weston Solutions

CLIENT: Weston Soluti Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: 71453

Sample ID IN Client ID: Z	IMBS1 8/21/13 ZZZZZ	SampType: MBLK Batch ID: 71453	MBLK 71453	TestCode	TestCode: M_ICPMS_S TestNo: SW6020	3 Units: mg/Kg		Prep Date: Analysis Date:	e: 8/21/2013 e: 8/22/2013	13 13	Run ID: ICP SeqNo: 249	ICPMS_130822A 2499369	4
Analyte		_	Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony Cadmium			ND 0.161	1.0									7
Chromium)	0.1985	0.50									7
Copper			0.193	1.2									7
Lead		J	0.1975	0.25									っ
Tin			1.582	2.5									<u>*</u>
Zinc			Q	2.5									
Sample ID II	ILCSS1 8/21/13	SampType: LCS	so-	TestCode	TestCode: M_ICPMS_S	S Units: mg/Kg		Prep Date:	8/21/2013	13	Run ID: ICP	ICPMS_130822A	Ą
Client ID: Z	ZZZZZ	Batch ID: 7	71453	TestNo	TestNo: SW6020		1	Analysis Date:	e: 8/22/2013	13	SeqNo: 249	2499370	
Analyte		_	Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony			15.31	1.0	12.5	0	122	80	120	0	0		S
Cadmium			24.74	0.25	25	0.161	98.3	80	120	0	0		
Chromium			24.87	0.50	25	0.1985	98.7	80	120	0	0		
Copper			24.9	1.2	25	0.193	98.8	80	120	0	0		
Lead			25.14	0.25	25	0.1975	8.66	80	120	0	0		
Tin			14.28	2.5	12.5	1.582	102	80	120	0	0		*
Zinc			23.98	2.5	25	0	95.9	80	120	0	0		
Sample ID 1:	13080639-040AMS	SampType: I	MS	TestCode	TestCode: M_ICPMS_S	S Units: mg/Kg-dry	ı-dry	Prep Date:	8/21/2013	13	Run ID: ICP	ICPMS_130822A	Ą
Client ID: P	PA-515-01(0-6)-0816	Batch ID:	71453	TestNo	TestNo: SW6020		*	Analysis Date:	e: 8/22/2013	13	SeqNo: 249	2499375	
Analyte		-	Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony			10.07	4.2	13.07	3.527	50.1	75	125	0	0		S
Cadmium			33.3	1.0	26.14	8.107	96.4	75	125	0	0		
Chromium			52.55	2.1	26.14	27.84	94.5	75	125	0	0		
Copper			197.1	5.2	26.14	152.9	169	75	125	0	0		S
Lead			1829	1.0	26.14	2202	-1430	75	125	0	0		S
Tin			49.43	10	13.07	33.57	121	75	125	0	0		*
Zinc			1053	10	26.14	1040	48.7	75	125	0	0		S
Qualifiers:	ND - Not Dete	ND - Not Detected at the Reporting Limit	orting Limit		S - Spike	S - Spike Recovery outside accepted recovery limits	accepted re-	covery limits		B - Analyte detected in the associated Method Blank	cted in the asso	ciated Metho	d Blank
	J - Analyte det	J - Analyte detected below quantitation limits	untitation limits		R - RPD	R - RPD outside accepted recovery limits	ecovery lim	its	Д	E - Value above quantitation range	quantitation ran	ge	
	* - Non Accre	* - Non Accredited Parameter			Н/НТ - Н	H/HT - Holding Time Exceeded	eded						

Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: 71453

Sample ID	Sample ID 13080639-040AMSD SampType: MSD	TestCoc	de: M_ICPMS_	TestCode: M_ICPMS_S Units: mg/Kg-dry		Prep Date:	e: 8/21/2013)13	Run ID: ICF	Run ID: ICPMS_130822A	4
Client ID:	Client ID: PA-515-01(0-6)-0816 Batch ID: 71453	Test	TestNo: SW6020		•	Analysis Date: 8/22/2013	te: 8/22/20	113	SeqNo: 2499376	9376	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	90.6	4.2	13.02	3.527	42.5	75	125	10.07	10.6	20	S
Cadmium	32.04	1.0	26.03	8.107	91.9	75	125	33.3	3.87	20	
Chromium	48.71	2.1	26.03	27.84	80.2	75	125	52.55	7.58	20	
Copper	154.4	5.2	26.03	152.9	5.92	75	125	197.1	24.3	20	SR
Lead	1450	1.0	26.03	2202	-2890	75	125	1829	23.1	20	SR
Щ	55.09	10	13.02	33.57	165	75	125	49.43	10.8	20	*s
Zinc	9.778	10	26.03	1040	-622	75	125	1053	18.1	20	S

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

Qualifiers:

* - Non Accredited Parameter

B - Analyte detected in the associated Method Blank E - Value above quantitation range

Prep Factor Units:

mL/g

STAT Analysis Corporation

Prep Start Date:

8/22/2013 10:00:41 8/22/2013 1:05:00 P

Prep End Date:

8/22/2013 PrepEnd **PrepStart** 8/22/2013 50.000 50.000 46.773 46.339 49.164 47.438 48.123 48.263 48.403 48.828 47.710 49.950 45.998 49.310 48.216 47.939 49.900 49.164 49.456 48.263 98.814 46.992 46.382 49.801 factor 20 Fin Vol 20 20 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Sol Recov Technician: VA 0 Sol Added 1.039 1.069 1.064 1.036 1.033 1.024 1.048 1.014 1.078 1.043 1.002 1.036 1.004 0.506 1.079 1.017 1.054 1.087 1.037 1.017 SampAmt 1.001 1.011 Prep Code: M_S_PREP 된 Matrix Soil Prep Batch 71490 13080639-017BMSD 13080639-017BMS N2711a1 8/22/13 13080639-001B 13080639-002B 13080639-003B 13080639-004B 13080639-005B 13080639-006B 13080639-007B 13080639-008B 13080639-009B 13080639-010B 13080639-011B 13080639-012B 13080639-013B 13080639-014B 13080639-015B 13080639-016B 13080639-017B 13080639-018B 13080639-019B ILCSS1 8/22/13 IMBS1 8/22/13 Sample ID

Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: 71490

Sample ID: IMBS1 8/22/13 Client ID: ZZZZ	SampType: MBLK Batch ID: 71490	TestCod	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg		Prep Date: Analysis Date:	8/22/2013 8/22/2013	Run ID: ICPMS-2_130822A SeqNo: 2499232	3-2_130822 32	4
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val	%RPD RI	RPDLimit	Qual
Lead	0.202	0.25								7
Sample ID: ILCSS1 8/22/13 Client ID: ZZZZ	SampType: LCS Batch ID: 71490	TestCod	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg		Prep Date: Analysis Date:	8/22/2013 8/22/2013	Run ID: ICPMS-2_130822A SeqNo: 2499233	3-2_130822 33	4
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val	%RPD R	RPDLimit	Qual
Lead	25.18	0.25	25	0.202	6.66	80	120 0	0		
Sample ID: N2711A1 8/22/13 Client ID: ZZZZZ	SampType: LCS Batch ID: 71490	TestCod	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg		Prep Date: Analysis Date:	8/22/2013 8/23/2013	Run ID: ICPMS_130823A SeqNo: 2500181	3_130823A 81	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val	%RPD RI	RPDLimit	Qual
Lead	1399	4.9	1399	0.202	100	85	115 0	0		
Sample ID: 13080639-017BMS Client ID: PA-499-01(0-6)-0814	SampType: MS Batch ID: 71490	TestCod	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg-dry		Prep Date: Analysis Date:	8/22/2013 8/22/2013	Run ID: ICPMS-2_130822A SeqNo: 2499237	3-2_130822 37	4
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val	%RPD RI	RPDLimit	Qual
Lead	1147	4.9	24.58	1089	235	75	125 0	0		S
Sample ID: 13080639-017BMSD Client ID: PA-499-01(0-6)-0814	SampType: MSD Batch ID: 71490	TestCod	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg-dry		Prep Date: Analysis Date:	8/22/2013 8/22/2013	Run ID: ICPMS-2_130822A SeqNo: 2499238	3-2_130822 38	4
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val	%RPD RI	RPDLimit	Qual
Lead	1164	4.9	24.73	1089	303	75	125 1147	1.49	20	S

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	E - Value above quantitation range
	* - Non Accredited Parameter	H/HT - Holding Time Exceeded	

Prep Factor Units:

mL/g

STAT Analysis Corporation

Prep Start Date:

8/22/2013 1:10:52 P 8/22/2013 4:35:00 P Prep End Date:

8/22/2013 PrepEnd **PrepStart** 8/22/2013 47.710 51.335 47.710 43.783 50.000 50.000 57.339 51.073 52.576 48.309 46.729 48.685 45.746 46.083 47.125 47.664 48.544 48.403 48.403 98.619 64.599 55.310 47.619 factor 58.411 20 Fin Vol 50 20 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Sol Recov Technician: VA 0 Sol Added 0.979 1.035 1.142 1.05 1.085 0.774 0.872 1.048 0.974 1.048 1.093 1.049 1.03 1.033 1.033 0.904 0.856 1.027 SampAmt 0.951 1.07 1.061 0.507 Prep Code: M_S_PREP 된 Matrix Soil Prep Batch 71493 13080639-040BMSD 13080639-040BMS N2711a2 8/22/13 13080639-037B 13080639-020B 13080639-021B 13080639-022B 13080639-023B 13080639-024B 13080639-025B 13080639-026B 13080639-027B 13080639-028B 13080639-029B 13080639-030B 13080639-031B 13080639-032B 13080639-033B 13080639-034B 13080639-035B 13080639-036B 13080639-040B ILCSS2 8/22/13 IMBS2 8/22/13 Sample ID

Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: 71493

Sample ID: IMBS2 8/22/13 Client ID: ZZZZZ	SampType: MBLK Batch ID: 71493	TestCode TestNo	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg	1	Prep Date: 8/22/2013 Analysis Date: 8/22/2013	: 8/22/2013 : 8/22/2013		Run ID: ICPMS_130822A SeqNo: 2499726	_130822A :6	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD F	RPD Ref Val	%RPD RF	RPDLimit	Qual
Lead	0.191	0.25									٦
Sample ID: ILCSS2 8/22/13 Client ID: ZZZZZ	SampType: LCS Batch ID: 71493	TestCode	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg		Prep Date: 8/22/2013 Analysis Date: 8/22/2013	Prep Date: 8/22/2013 llysis Date: 8/22/2013		Run ID: ICPMS_130822A SeqNo: 2499727	_130822A	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	LowLimit HighLimit RPD Ref Val	Ref Val	%RPD RF	RPDLimit	Qual
Lead	25.82	0.25	25	0.191	102	80	120	0	0		
Sample ID: N2711A2 8/22/13 Client ID: ZZZZZ	SampType: LCS Batch ID: 71493	TestCode	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg		Prep Date: Analysis Date:	: 8/22/2013 : 8/22/2013		Run ID: ICPMS_130822A SeqNo: 2499728	_130822A	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD F	RPD Ref Val	%RPD RF	RPDLimit	Qual
Lead	1317	4.9	1400	0.191	94	85	115	0	0		
Sample ID: 13080639-040BMS Client ID: PA-515-01(0-6)-0816	SampType: MS Batch ID: 71493	TestCode	FestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg-dry		Prep Date: 8/22/2013 Analysis Date: 8/22/2013	: 8/22/2013 : 8/22/2013		Run ID: ICPMS_130822A SeqNo: 2499733	_130822A	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit		RPD Ref Val	%RPD RF	RPDLimit	Qual
Lead	2011	4.8	24.2	1639	1530	75	125	0	0		S
Sample ID: 13080639-040BMSD Client ID: PA-515-01(0-6)-0816	SampType: MSD Batch ID: 71493	TestCode TestNo	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg-dry		Prep Date: Analysis Date:	: 8/22/2013 : 8/22/2013		Run ID: ICPMS_130822A SeqNo: 2499734	_130822A	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	LowLimit HighLimit RPD Ref Val	Ref Val	%RPD RF	RPDLimit	Qual
Lead	2111	4.8	24.2	1639	1950	75	125	2011	4.86	20	S

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

Qualifiers:

* - Non Accredited Parameter

B - Analyte detected in the associated Method Blank E - Value above quantitation range

STAT Analysis Corporation

Prep Start Date: **8/22/2013 1:10:39 P**Prep End Date: **8/22/2013 4:35:00 P**

Prep Factor Units: mL/g Technician: VA Prep Code: M.S.PREP Prep Batch **71494**

riep batcii	الماطيات	riep code. M. S. r.		GUIIIGAII. VA			8 / J		
Sample ID	Matrix	Hd	SampAmt	Sol Added	Sol Recov	Fin Vol	Fin Vol factor	PrepStart	PrepEnd
IMBS3 8/22/13			-	0	0	20	50.000	8/22/2013	8/22/2013
ILCSS3 8/22/13			1	0	0	20	50.000	8/22/2013	8/22/2013
13080639-038B	Soil		1.134	0	0	20	44.092	8/22/2013	8/22/2013
13080639-039B	Soil		1.061	0	0	20	47.125	8/22/2013	8/22/2013
13080639-041B	Soil		1.014	0	0	20	49.310	8/22/2013	8/22/2013
13080639-042B	Soil		1.002	0	0	20	49.900	8/22/2013	8/22/2013
13080639-043B	Soil		1.005	0	0	20	49.751	8/22/2013	8/22/2013
13080639-043BMS	Soil		1.042	0	0	20	47.985	8/22/2013	8/22/2013
13080639-043BMSD	Soil		1.045	0	0	20	47.847	8/22/2013	8/22/2013
N2711a3 8/22/13			0.504	0	0	20	99.206	8/22/2013	8/22/2013

Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: 71494

Sample ID: IMBS3 8/22/13 Client ID: ZZZZZ	SampType: MBLK Batch ID: 71494	TestCode	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg		Prep Date: Analysis Date:	8/22/2013 8/22/2013	Run II. SeqN	Run ID: ICPMS-2_130822A SeqNo: 2499267	130822A	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val		%RPD RPDLimit		Qual
Lead	0.132	0.25									_
Sample ID: ILCSS3 8/22/13 Client ID: ZZZZZ	SampType: LCS Batch ID: 71494	TestCode	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg		Prep Date: Analysis Date:	8/22/2013 8/22/2013	Run II. SeqN	Run ID: ICPMS-2_130822A SeqNo: 2499268	130822A	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val		%RPD RPDLimit		Qual
Lead	24.96	0.25	25	0.132	99.3	80	120	0	0		
Sample ID: N2711A3 8/22/13 Client ID: ZZZZZ	SampType: LCS Batch ID: 71494	TestCode	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg		Prep Date: 8/22/2013 Analysis Date: 8/22/2013	8/22/2013 8/22/2013	Run II. SeqN	Run ID: ICPMS-2_130822A SeqNo: 2499269	130822A	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val		%RPD RPDLimit		Qual
Lead	1583	5.0	1401	0.132	113	85	115	0	0		
Sample ID: 13080639-043BMS Client ID: PA-516-01(6-18)-081	SampType: MS Batch ID: 71494	TestCode	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg-dry		Prep Date: Analysis Date:	8/22/2013 8/22/2013	Run II. SeqN	Run ID: ICPMS-2_130822A SeqNo: 2499272	130822A	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val		%RPD RPDLimit		Qual
Lead	793.5	5.0	25	738	222	75	125	0	0		S
Sample ID: 13080639-043BMSD SampType: MSD Client ID: PA-516-01(6-18)-081 Batch ID: 7149.	SampType: MSD Batch ID: 71494	TestCode	TestCode: M_ICPMS_S TestNo: SW6020	S Units: mg/Kg-dry		Prep Date: Analysis Date:	8/22/2013 8/22/2013	Run II. SeqN	Run ID: ICPMS-2_130822A SeqNo: 2499273	130822A	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val		%RPD RPDLimit		Qual
Lead	784	5.0	25	738	184	75	125 793.5	.5	1.20	20	S

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	E - Value above quantitation range
	* - Non Accredited Parameter	H/HT - Holding Time Exceeded	

STAT Analysis Corporation

8/19/2013 6:57:00 P 8/19/2013 7:35:00 P Prep Start Date:

Prep End Date:

mL/g Prep Code: M_HG_S_PRE Technician: LB Prep Batch 71402

Prep Factor Units:

8/19/2013 PrepEnd **PrepStart** 8/19/2013 92.025 98.039 92.308 93.168 93.458 93.458 92.308 93.168 93.458 79.576 100.000 94.044 89.286 80.429 88.235 93.750 87.209 100.000 92.593 97.087 96.154 97.087 98.361 factor 100.000 30 Fin Vol 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Sol Recov 0 Sol Added 0.305 0.325 0.326 0.309 0.312 0.306 0.309 0.322 0.325 0.319 0.336 0.373 0.34 0.32 0.344 0.3 0.324 0.322 SampAmt 0.3 0.321 0.321 0.321 0.377 0.3 된 Matrix Solid Solid Solid Solid Solid Solid Soil 13080598-002AMSD 13080598-002AMS HGLCSS1 8/19/13 HGMBS1 8/19/13 13080538-003B 13080538-005B 13080538-006B 13080538-008A 13080538-009A 13080538-010B 13080598-001A 13080598-003A 13080598-004A 13080639-001A 13080639-003A 13080639-004A 13080639-005A 13080639-006A 13080639-007A 13080639-009A 13080677-001A 13080598-002A 13080639-008A 13080639-002A Sample ID

Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: 71402

Sample ID Client ID:	Sample ID HGMBS1 8/19/13 Client ID: ZZZZZ	SampType: MBLK Batch ID: 71402	MBLK 71402	TestCode	TestCode: M_HG_SOLI TestNo: SW7471A	Units: mg/Kg	▼	Prep Date: Analysis Date:	8/19/2013	m m	Run ID: CETAC_130820A SeqNo: 2496954	'AC_130820,	4
Analyte Mercury			Result ND	PQL 0.020	SPK value SP	SPK Ref Val	%REC	%REC LowLimit HighLimit RPD Ref Val	ghLimit F	RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID Clent ID:	Sample ID HGLCSS1 8/19/13 Client ID: ZZZZZ	SampType: LCS Batch ID: 71402	LCS 71402	TestCod	TestCode: M_HG_SOLI TestNo: SW7471A	Units: mg/Kg		Prep Date: Analysis Date:	8/19/2013		Run ID: CETAC_130820A SeqNo: 2496955	AC_130820,	4
Analyte Mercury			Result 0.227	PQL 0.020	SPK value SP	SPK Ref Val	%REC 90.8	LowLimit HighLimit 80 120	ı	RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID Client ID:	Sample ID 13080598-002AMS Client ID: ZZZZZ	SampType: MS Batch ID: 71402	MS 71402	TestCod	TestCode: M_HG_SOLI TestNo: SW7471A	Units: mg/Kg-dry		Prep Date: 8/19/2013 Analysis Date: 8/20/2013	8/19/2013 8/20/2013	m m	Run ID: CETAC_130820B SeqNo: 2497016	AC_130820I 7016	m
Analyte			Result 2.44	PQL 0.10	SPK value SP 0.2552	SPK Ref Val 2.102	%REC 132	LowLimit HighLimit 75 125		RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID Client ID:	Sample ID 13080598-002AMSD SampType: MSD Client ID: ZZZZZ Batch ID: 7140:	SampType: MSD Batch ID: 71402	MSD 71402	TestCode	TestCode: M_HG_SOLI TestNo: SW7471A	Units: mg/Kg-dry		Prep Date: Analysis Date:	8/19/2013		Run ID: CETAC_130820B SeqNo: 2497017	AC_130820I	m
Analyte			Result	PQL	SPK value SP	SPK Ref Val	%REC	%REC LowLimit HighLimit RPD Ref Val	ghLimit F	PD Ref Val	%RPD	RPDLimit	Qual
Mercury			2.239	0.10	0.2521	2.102	24	75	125	2.44	8.61	20	S

H/HT - Holding Time Exceeded

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

Qualifiers:

* - Non Accredited Parameter

B - Analyte detected in the associated Method Blank E - Value above quantitation range S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

Prep Factor Units:

STAT Analysis Corporation

8/20/2013 5:07:00 P 8/20/2013 5:45:00 P Prep Start Date:

Prep End Date:

8/20/2013 PrepEnd **PrepStart** 8/20/2013 85.714 94.340 95.238 95.238 82.192 89.552 87.209 87.977 87.719 90.909 83.333 98.039 90.090 98.039 96.154 92.025 100.000 93.750 95.541 86.957 85.227 98.684 factor 100.000 100.000 mL/g 30 Fin Vol 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Sol Recov Prep Code: M_HG_S_PRE Technician: LB 0 Sol Added 0.315 0.315 0.365 0.345 0.35 0.335 0.318 0.314 0.352 0.342 0.33 0.36 0.306 0.333 0.306 0.312 0.326 0.3 0.344 0.304 SampAmt 0.3 0.341 0.3 된 Matrix Soil Prep Batch 71452 13080639-017AMSD 13080639-017AMS HGLCSS1 8/20/13 HGMBS1 8/20/13 13080692-001A 13080639-010A 13080639-011A 13080639-012A 13080639-013A 13080639-014A 13080639-015A 13080639-016A 13080639-017A 13080639-018A 13080639-021A 13080639-023A 13080639-024A 13080639-027A 13080639-028A 13080639-019A 13080639-020A 13080639-022A 13080639-025A 13080639-026A Sample ID

Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: 71452

Sample ID	Sample ID HGMBS1 8/20/13	SampType: MBLK	MBLK	TestCod	TestCode: M_HG_SOLI	Units: mg/Kg		Prep Date:	8/20/2013		Run ID: CETAC_130821A	.C_130821	
Client ID:	ZZZZZ	Batch ID: 71452	71452	TestN	TestNo: SW7471A		4	Analysis Date:	8/21/2013		SeqNo: 2497895	36	
Analyte			Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	ghLimit RPE	O Ref Val	%RPD R	RPDLimit	Qual
Mercury			QN	0.020									
Sample ID	Sample ID HGLCSS1 8/20/13	SampType: LCS	rcs	TestCod	TestCode: M_HG_SOLI	Units: mg/Kg		Prep Date:	8/20/2013		Run ID: CETAC_130821A	.C_130821	_
Client ID: ZZZZZ	22222	Batch ID: 71452	71452	TestN	TestNo: SW7471A		4	Analysis Date: 8/21/2013	8/21/2013		SeqNo: 2497896	96	
Analyte			Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit Hię	HighLimit RPE	RPD Ref Val	%RPD R	RPDLimit	Qual
Mercury			0.228	0.020	0.25	0	91.2	80	120	0	0		
Sample ID	Sample ID 13080639-017AMS SampType: MS	SampType:	MS	TestCod	TestCode: M_HG_SOLI	Units: mg/Kg-dry	dry	Prep Date:	8/20/2013		Run ID: CETAC_130821F	.C_130821I	
Client ID:	PA-499-01(0-6)-0814	14 Batch ID: 71452	71452	TestN	TestNo: SW7471A		4	Analysis Date:	8/21/2013		SeqNo: 2498271	171	
Analyte			Result	PQL	SPK value S	SPK Ref Val	%REC	%REC LowLimit HighLimit RPD Ref Val	ghLimit RPE	O Ref Val	%RPD R	RPDLimit	Qual
Mercury			0.7998	0.041	0.2544	0.65	58.9	75	125	0	0		S
Sample ID	Sample ID 13080639-017AMSD SampType: MSD	D SampType:	MSD	TestCod	TestCode: M_HG_SOLI	Units: mg/Kg-dry	dry	Prep Date:	8/20/2013		Run ID: CETAC_130821F	.C_130821I	
Client ID:	Client ID: PA-499-01 (0-6)-0814 Batch ID: 71452	14 Batch ID:	71452	TestN	TestNo: SW7471A		4	Analysis Date:	8/21/2013		SeqNo: 2498272	:72	
Analyte			Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit Hig	HighLimit RPE	RPD Ref Val	%RPD R	RPDLimit	Qual
Mercury			0.85	0.041	0.2566	0.65	6.77	75	125	0.7998	6.08	20	

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

Qualifiers:

* - Non Accredited Parameter

B - Analyte detected in the associated Method Blank E - Value above quantitation range

STAT Analysis Corporation

Prep Start Date: **8/20/2013 6:16:00 P** Prep End Date: **8/20/2013 6:57:00 P**

mL/g Technician: LB Prep Code: M_HG_S_PRE Prep Batch **71461**

Prep Factor Units:

riep batcii / 1401	riep code.	ָט פריי	בער. בער.	ecilliciali. Lb					
Sample ID	Matrix	Н	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
HGMBS2 8/20/13			0.3	0	0	30	100.000	8/20/2013	8/20/2013
HGLCSS2 8/20/13			0.3	0	0	30	100.000	8/20/2013	8/20/2013
13080639-029A	Soil		0.338	0	0	30	88.757	8/20/2013	8/20/2013
13080639-030A	Soil		0.348	0	0	30	86.207	8/20/2013	8/20/2013
13080639-031A	Soil		0.327	0	0	30	91.743	8/20/2013	8/20/2013
13080639-032A	Soil		0.3	0	0	30	100.000	8/20/2013	8/20/2013
13080639-033A	Soil		0.308	0	0	30	97.403	8/20/2013	8/20/2013
13080639-034A	Soil		0.332	0	0	30	90.361	8/20/2013	8/20/2013
13080639-035A	Soil		0.361	0	0	30	83.102	8/20/2013	8/20/2013
13080639-036A	Soil		0.338	0	0	30	88.757	8/20/2013	8/20/2013
13080639-037A	Soil		0.303	0	0	30	99.010	8/20/2013	8/20/2013
13080639-038A	Soil		0.304	0	0	30	98.684	8/20/2013	8/20/2013
13080639-039A	Soil		0.395	0	0	30	75.949	8/20/2013	8/20/2013
13080639-040A	Soil		0.387	0	0	30	77.519	8/20/2013	8/20/2013
13080639-040AMS	Soil		0.388	0	0	30	77.320	8/20/2013	8/20/2013
13080639-040AMSD	Soil		0.389	0	0	30	77.121	8/20/2013	8/20/2013
13080639-041A	Soil		0.305	0	0	30	98.361	8/20/2013	8/20/2013
13080639-042A	Soil		0.359	0	0	30	83.565	8/20/2013	8/20/2013
13080643-001A	Solid		0.348	0	0	30	86.207	8/20/2013	8/20/2013
13080643-002A	Solid		0.39	0	0	30	76.923	8/20/2013	8/20/2013
13080643-003A	Solid		0.318	0	0	30	94.340	8/20/2013	8/20/2013
13080643-004A	Solid		0.359	0	0	30	83.565	8/20/2013	8/20/2013
13080681-001B	Soil		0.307	0	0	30	97.720	8/20/2013	8/20/2013
13080682-001A	Soil		0.322	0	0	30	93.168	8/20/2013	8/20/2013

Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: 71461

Sample ID	Sample ID HGMBS2 8/20/13	SampType: MBLK	MBLK	TestCoo	TestCode: M_HG_SOLI	Units: mg/Kg	4	Prep Date:	8/20/2013		Run ID: CETAC_130821F	4C_1308211	L
Analyte		5	Result	PQL		SPK Ref Val	%REC	LowLimit Hi	~	Ref Val	WRPD F	RPDLimit	Qual
Mercury			QN	0.020									
Sample ID	Sample ID HGLCSS2 8/20/13	SampType: LCS	SOT	TestCod	TestCode: M_HG_SOLI	Units: mg/Kg		Prep Date:	Prep Date: 8/20/2013		Run ID: CETAC_130821F	AC_130821	ш
Client ID: ZZZZZ	22222	Batch ID: 71461	71461	TestN	TestNo: SW7471A		∢	Analysis Date:	8/21/2013		SeqNo: 2498233	233	
Analyte			Result	PQL	SPK value SF	SPK Ref Val	%REC	LowLimit HighLimit		RPD Ref Val	%RPD F	RPDLimit	Qual
Mercury			0.226	0.020	0.25	0	90.4	80	120	0	0		
Sample ID Client ID:	Sample ID 13080639-040AMS Client ID: PA-515-01(0-6)-0816	SampType: MS 6 Batch ID: 71461	MS 71461	TestCod	TestCode: M_HG_SOLI TestNo: SW7471A	Units: mg/Kg-dry		Prep Date: Analysis Date:	8/20/2013 8/21/2013		Run ID: CETAC_130821F SeqNo: 2498276	4C_130821 276	L.
Analyte			Result	PQL	SPK value SF	SPK Ref Val	%REC	LowLimit Hi	%REC LowLimit HighLimit RPD Ref Val	Ref Val	%RPD F	RPDLimit	Qual
Mercury			1.047	960.0	0.2389	0.8863	29	75	125	0	0		S
Sample ID Client ID:	Sample ID 13080639-040AMSD SampType: MSD Client ID: PA-515-01(0-6)-0816 Batch ID: 7146	D SampType: MSD 6 Batch ID: 71461	MSD 71461	TestCoc	TestCode: M_HG_SOLI TestNo: SW7471A	Units: mg/Kg-dry		Prep Date: Analysis Date:	8/20/2013 8/21/2013		Run ID: CETAC_130821F SeqNo: 2498277	4C_130821 277	L
Analyte			Result	PQL	SPK value SF	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD	RPD Ref Val	%RPD F	RPDLimit	Qual
Mercury			1.039	0.095	0.2383	0.8863	64.1	75	125	1.047	0.715	20	S

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

Qualifiers:

* - Non Accredited Parameter

B - Analyte detected in the associated Method Blank E - Value above quantitation range

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded

Page 119 of 124

Prep Factor Units:

STAT Analysis Corporation

8/20/2013 6:30:00 P 8/20/2013 7:09:00 P Prep Start Date:

Prep End Date:

8/20/2013 PrepEnd **PrepStart** 8/20/2013 86.455 92.025 96.154 92.025 77.320 92.593 82.192 98.684 89.286 94.044 98.684 96.774 80.000 89.021 90.634 91.463 91.743 100.000 86.207 97.087 94.637 factor 100.000 98.361 mL/g 81.081 30 Fin Vol 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Sol Recov Prep Code: M_HG_S_PRE Technician: LB 0 Sol Added 0.305 0.326 0.348 0.312 0.326 0.388 0.324 0.365 0.336 0.319 0.304 0.375 0.328 0.3 0.309 0.347 0.304 0.337 0.317 SampAmt 0.3 0.31 0.331 0.327 된 Matrix Soil Prep Batch 71462 13080639-043AMSD 13080639-043AMS HGLCSS3 8/20/13 HGMBS3 8/20/13 13080634-011B 13080634-001B 13080634-002B 13080634-003B 13080634-004B 13080634-005B 13080634-006B 13080634-007B 13080634-008B 13080634-009B 13080634-010B 13080634-012B 13080634-013B 13080634-014B 13080634-015B 13080634-016B 13080634-017B 13080634-018B 13080634-019B 13080639-043A Sample ID

Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

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BatchID: 71462

Sample ID	Sample ID HGMBS3 8/20/13	SampType: MBLK	MBLK	TestCod	TestCode: M_HG_SOLI	Units: mg/Kg		Prep Date:	8/20/2013		Run ID: CETAC_130821F	\C_130821	ш
Client ID:	ZZZZZ	Batch ID: 71462	71462	TestN	TestNo: SW7471A		1	Analysis Date:	8/21/2013		SeqNo: 2498252	252	
Analyte			Result	PQL	SPK value SI	SPK Ref Val	%REC	LowLimit Hi	LowLimit HighLimit RPD Ref Val) Ref Val	%RPD R	RPDLimit	Qual
Mercury			ND	0.020									
Sample ID	Sample ID HGLCSS3 8/20/13	SampType: LCS	SOT	TestCod	TestCode: M_HG_SOLI	Units: mg/Kg		Prep Date:	8/20/2013		Run ID: CETAC_130821F	AC_130821	ш
Client ID:	22222	Batch ID: 71462	71462	TestN	TestNo: SW7471A		1	Analysis Date: 8/21/2013	8/21/2013		SeqNo: 2498253	253	
Analyte			Result	PQL	SPK value SI	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD	RPD Ref Val	%RPD F	RPDLimit	Qual
Mercury			0.227	0.020	0.25	0	8.06	80	120	0	0		
Sample ID	Sample ID 13080639-043AMS SampType: MS	SampType:	MS	TestCod	TestCode: M_HG_SOLI	Units: mg/Kg-dry	dry	Prep Date:	8/20/2013		Run ID: CETAC_130821F	\C_130821	ш
Client ID:	PA-516-01(6-18)-081	1 Batch ID: 71462	71462	TestN	TestNo: SW7471A		1	Analysis Date:	8/21/2013		SeqNo: 2498257	257	
Analyte			Result	PQL	SPK value SI	SPK Ref Val	%REC	%REC LowLimit HighLimit RPD Ref Val	ighLimit RPC) Ref Val	%RPD R	RPDLimit	Qual
Mercury			0.7737	0.023	0.2819	0.4873	102	75	125	0	0		
Sample ID	Sample ID 13080639-043AMSD SampType: MSD	SampType:	MSD	TestCod	TestCode: M_HG_SOLI	Units: mg/Kg-dry	dry	Prep Date:	8/20/2013		Run ID: CETAC_130821F	\C_130821	L
Client ID:	Client ID: PA-516-01(6-18)-081	1 Batch ID: 71462	71462	TestN	TestNo: SW7471A		1	Analysis Date: 8/21/2013	8/21/2013		SeqNo: 2498258	258	
Analyte			Result	PQL	SPK value SI	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD	RPD Ref Val	%RPD F	RPDLimit	Qual
Mercury			0.7364	0.023	0.2828	0.4873	88.1	22	125	0.7737	4.93	20	

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter

Qualifiers:

B - Analyte detected in the associated Method Blank E - Value above quantitation range

CLIENT: Weston Solutions
Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: R92317

Sample ID	Sample ID PMMBK 1 8/20/13	SampType: MBLK	MBLK	TestCod	TestCode: PMOIST	Units: wt%		Prep Date:	8/20/2013		Run ID: BALANCE_130820C	NCE_1308	20C
Client ID:	ZZZZZ	Batch ID:	Batch ID: R92317	TestN	TestNo: D2974			Analysis Date:	8/20/2013		SeqNo: 2497375	75	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	lighLimit RPD Ref Val	y Val	%RPD R	RPDLimit	Qual
Percent Moisture	isture		ND	0.200									*
Sample ID	Sample ID PMLCS-S 1 8/20/13 SampType: LCS	SampType	SOT :	TestCod	TestCode: PMOIST	Units: wt%		Prep Date:	Prep Date: 8/20/2013		Run ID: BALANCE_130820C	NCE_1308	20C
Client ID:	22222	Batch ID:	Batch ID: R92317	TestN	TestNo: D2974		•	Analysis Date: 8/20/2013	8/20/2013		SeqNo: 2497377	77	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	lighLimit RPD Ref Val	ıf Val	%RPD R	RPDLimit	Qual
Percent Moisture	isture		4.82	0.200	5	0	96.4	80	120	0	0		*
Sample ID	Sample ID PMLCS-W 1 8/20/13 SampType: LCS	SampType	SOT :	TestCod	TestCode: PMOIST	Units: wt%		Prep Date:	8/20/2013		Run ID: BALANCE_130820C	NCE_1308	20C
Client ID:	22222	Batch ID:	Batch ID: R92317	TestN	TestNo: D2974			Analysis Date:	8/20/2013		SeqNo: 2497379	62	
Analyte			Result	Pol	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	lighLimit RPD Ref Val	ef Val	%RPD R	RPDLimit	Qual
Percent Moisture	isture		99.79	0.200	8.66	0	100	80	120	0	0		*
Sample ID Client ID:	Sample ID 13080634-018B DUP SampType: DUP Client ID: ZZZZ Batch ID: R92:	SampType Batch ID:	ampType: DUP Batch ID: R92317	TestCod	TestCode: PMOIST TestNo: D2974	Units: wt%		Prep Date: 8/20/2013 Analysis Date: 8/20/2013	Prep Date: 8/20/2013 lysis Date: 8/20/2013		Run ID: BALANCE_130820C SeqNo: 2497387	NCE_1308 87	20C
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	lighLimit RPD Ref Val	ıf Val	%RPD R	RPDLimit	Qual
Percent Moisture	isture		14.94	0.200	0	0	0	0	0	12.72	16.1	20	*

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

Qualifiers:

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded

B - Analyte detected in the associated Method Blank E - Value above quantitation range

Weston Solutions 13080639 Work Order: **CLIENT:**

Pilsen Soil Site, Pilsen, Chicago, IL Project:

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BatchID: R92320

Sample ID PMMBK 2 8/20/13 Client ID: ZZZZZ	SampType: MBLK Batch ID: R92320	ampType: MBLK Batch ID: R92320	TestCod	TestCode: PMOIST TestNo: D2974	Units: wt%	,	Prep Date: Analysis Date:	8/20/2013	E S	Run ID: BALANCE_130820D SeqNo: 2497484	E_1308	20D
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	LowLimit HighLimit RPD Ref Val	/al	%RPD RP[RPDLimit	Qual
Percent Moisture		QN	0.200									*
Sample ID PMLCS-S 2 8/20/13 SampType: LCS	SampType:	SOT	TestCod	TestCode: PMOIST	Units: wt%		Prep Date:	Prep Date: 8/20/2013	LE LE	Run ID: BALANCE_130820D	E_1308	20D
Client ID: ZZZZZ	Batch ID:	Batch ID: R92320	TestN	TestNo: D2974			Analysis Date: 8/20/2013	8/20/2013	Ø	SeqNo: 2497485		
Analyte		Result	POL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val	/al	%RPD RPI	RPDLimit	Qual
Percent Moisture		4.89	0.200	5	0	8.76	80	120	0	0		*
Sample ID PMLCS-W 2 8/20/13 SampType: LCS Clent ID: ZZZZ Batch ID: R923	SampType: Batch ID:	ampType: LCS Batch ID: R92320	TestCod	TestCode: PMOIST TestNo: D2974	Units: wt%		Prep Date: Analysis Date:	8/20/2013 8/20/2013	LE O	Run ID: BALANCE_130820D SeqNo: 2497486	E_1308	20D
Analyte		Result	POL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val	/al	%RPD RPI	RPDLimit	Qual
Percent Moisture		99.81	0.200	8.66	0	100	80	120	0	0		*
Sample ID 13080639-017A DUP SampType: DUP Client ID: PA-499-01(0-6)-0814 Batch ID: R92320	SampType: 4 Batch ID:	DUP R92320	TestCod	TestCode: PMOIST TestNo: D2974	Units: wt%		Prep Date: Analysis Date:	8/20/2013 8/20/2013	E O	Run ID: BALANCE_130820D SeqNo: 2497488	E_1308	20D
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val	/al	%RPD RPI	RPDLimit	Qual
Percent Moisture		12.07	0.200	0	0	0	0	0 14.	14.25	16.6	20	*

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

Qualifiers:

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits H/HT - Holding Time Exceeded

B - Analyte detected in the associated Method Blank E - Value above quantitation range

Work Order: 13080639

Project: Pilsen Soil Site, Pilsen, Chicago, IL

ANALYTICAL QC SUMMARY REPORT

BatchID: R92324

Sample ID Client ID:	Sample ID PMMBK 3 8/20/13 Client ID: ZZZZZ	SampType: MBLK Batch ID: R92324	MBLK R92324	TestCode TestNo	TestCode: PMOIST TestNo: D2974	Units: wt%	1	Prep Date: Analysis Date:	8/20/2013 8/20/2013		Run ID: BALANC SeqNo: 2497608	BALANCE_130820E 2497608	20E
Analyte Percent Moisture	oisture		Result ND	PQL 0.200	SPK value	SPK Ref Val	%REC	LowLimit Hi	LowLimit HighLimit RPD Ref Val	ef Val	%RPD	RPDLimit	Qual *
Sample ID Client ID:	Sample ID PMLCS-S 3 8/20/13 SampType: LCS Client ID: ZZZZZ Batch ID: R923	SampType: LCS Batch ID: R92324	LCS R92324	TestCode	TestCode: PMOIST TestNo: D2974	Units: wt%		Prep Date: 8/20/2013 Analysis Date: 8/20/2013	Prep Date: 8/20/2013 llysis Date: 8/20/2013		Run ID: BALANCE_130820E SeqNo: 2497609	.ANCE_1308	20E
Analyte Percent Moisture	oisture		Result 5.68	PQL 0.200	SPK value	SPK Ref Val	%REC	LowLimit HighLimit 80 120	ghLimit RPD Ref Val	ef Val	%RPD	RPDLimit	Qual *
Sample ID Client ID:	Sample ID PMLCS-W 3 8/20/13 SampType: LCS Client ID: ZZZZ Batch ID: R923	SampType: LCS Batch ID: R92324	LCS R92324	TestCode	TestCode: PMOIST TestNo: D2974	Units: wt%		Prep Date: Analysis Date:	8/20/2013 8/20/2013		Run ID: BALANCE_130820E SeqNo: 2497610	.ANCE_1308	20E
Analyte Percent Moisture	oisture		Result 99.77	PQL 0.200	SPK value	SPK Ref Val	%REC 100	LowLimit Hi	LowLimit HighLimit RPD Ref Val 80 120 0	ef Val	%RPD	RPDLimit	Qual *
Sample ID Client ID:	Sample ID 13080639-040A DUP SampType: DUP Client ID: PA-515-01(0-6)-0816 Batch ID: R92:	SampType: DUP Batch ID: R92324	DUP R92324	TestCode	TestCode: PMOIST TestNo: D2974	Units: wt%		Prep Date: Analysis Date:	8/20/2013		Run ID: BALANC SeqNo: 2497617	BALANCE_130820E 2497617	20E
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	ghLimit RPD Ref Val	əf Val	%RPD	RPDLimit	Qual
Percent Moisture	oisture		19.36	0.200	0	0	0	0	0	19.12	1.25	20	*

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

Qualifiers:

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded

APPENDIX B EPA FIELDS SUPPLEMENTAL DATA ANALYSIS





27 October 2014

U.S. EPA Region 5 Report for the Statistical Analysis of Cadmium, Copper, Lead, Tin and Zinc Found Soil at and near the H. Kramer facility, Chicago, IL

USEPA FIELDS Group

John Canar, Environmental Scientist Linda Jacobson, Research Associate Chuck Roth, Life Scientist

Introduction

Soil samples were collected by the USEPA and its contractor, Weston Solutions, near the H. Kramer property as well as at locations up to a mile and a half away from the property. These samples were analyzed for metals by an accredited laboratory. The metals focused on for this study were Cadmium, Copper, Lead, Tin, and Zinc because these metals are more indicative of the metals present in H. Kramer airborne emissions. The purpose of these analyses was to investigate the similarities and differences in concentrations of Cadmium, Copper, Lead, Tin, and Zinc in soils on and near the H. Kramer property, the nearby Pilsen residential neighborhood, two local areas (Little Italy and Harrison Park (West)), and the USGS – Chicago Department of Environment surface metals sampling data (Kay et al., 2003).

Methods

Data sets

The USEPA-Weston samples consisted of grab and composites containing soil from up to five discrete locations on a given property. Soil samples were collected from the following depths: 0-6, 0-12, 6-18, 6-24, and 18-24 inches below ground surface (bgs). The samples from the 0-6 inches bgs interval were used in these analyses. Samples were taken in front and back yards, alleys, and in soil areas with railroad tracks. The samples taken in gardens and drip zones were not used in this analysis due to garden soils potentially being amended, mixed and often imported, and drip zones being likely to contain Lead from Lead-based paint. Additionally, replicate samples and duplicate samples were also not used in this analysis. The samples were

separated into seven areas called Railroad, Alley, Res1, Res2, Res3, Little Italy, and West (see Figure 1). Little Italy is considered the local reference area. Little Italy was selected as it was mostly crosswind/upwind from the H. Kramer smelter and, compared to the Pilsen-Kramer area, had a more limited industrial past and was similar in terms of age. Figure 2 is a representation of the historic wind rose for the Pilsen-Kramer area and environs. Note that "arms" in the figure represent the direction from which the wind blows; the lengths represent the proportion of the time the wind came from each direction (i.e., the frequency). Hence, for this wind rose, the predominant winds are from the west and the south. The Res1, Res2, and Res3 areas were created based on the spatial grouping of the USEPA's residential soil sampling locations and the prevalent wind directions (from 1928 to 2013). The three areas are presented in Figure 3. The wind directions were presented in Figure 2. The West area, i.e., near Harrison Park (see Figure 1) is also a potential local reference area although it may have been impacted by historic heavy-metal emitters that were located in that area.

Additional data used in these analyses included H. Kramer "on-site" and the "USGS" surface metal concentrations. The former data were taken from the "CRA Updated Focused Site Investigation Report Sept. 2007" created by Conestoga-Rovers and Associates. The latter were obtained from the report by Kay et al. (2003), i.e., the joint USGS – Chicago Department of Environment sampling event in 2000 and 2001.

Basic Statistics

The basic (descriptive) statistics were generated for the three near residential areas: Res1, Res2, and Res3. These areas were presented in Figure 3 above.

Multiple Comparisons

The comparison of metal levels (Cadmium, Copper, Lead, and Zinc) for each area and/or dataset was performed using a statistical procedure called ANOVA (analysis of variance). The metal levels' areas are shown in Figure 1; a total of eight areas. These levels were also compared to the USGS – Chicago Department of Environment (USGS) sampling results. (Tin was not used in these comparisons as the on-site data did not contain concentration values for Tin.)

The comparison of these areas was phrased in the form of a question: Is there a difference in metal levels in these areas? If metal levels in the Railroad, Alley, On-site, Res1, Res2, and/or Res3 were higher than those in Little Italy, West, or the Chicago area (the USGS – Chicago Department of Environment data) then this would indicate contamination. In order to answer this question, an ANOVA procedure is performed to test the hypothesis that the metal levels in each area are the same. Hence, one is testing whether Zinc levels, for instance, are the same for the Railroad, Alley, On-site, West, Res1, Res2, Res3, Little Italy, and the Chicago area. If that hypothesis is rejected, meaning that the levels of Zinc are not the same in these areas, then a multiple comparison procedure is performed. Since an ANOVA does not tell you which areas

are different from each other, a multiple comparison procedure is performed to answer this question. The paragraph below explains how this is done using statistical software.

Since the data were not normally distributed for any of the metals (shown by the Shapiro-Wilk test; results not shown), and therefore violated the assumption of normality, the data were ranked to perform a nonparametric analysis. SAS[®] statistical software was used to compare the areas using one-way ANOVA on the ranked data with the general linear models (GLM) procedure. The Type III Sums of Squares result was used since the areas had an unbalanced number of samples. The Least Squares Means Tukey-Kramer Multiple Comparisons test was used to determine differences between the areas including the USGS dataset. The Least Squares Means Tukey-Kramer Multiple Comparisons test was selected because it accommodates unequal sample sizes and is the most robust test for pairwise comparisons (SAS, 2011).

Confidence Limits

As with the multiple comparison procedure, confidence limits were created for the ratio of Zinc to Lead in the eight areas and the USGS dataset. This ratio was found to be highest in the Railroad, Alley, and On-site samples compared to other areas at Pilsen.

Although the data were not normally distributed for the Zinc to Lead ratios (shown by the Shapiro-Wilk test; results not shown), and therefore violated the assumption of normality, the confidence limits were estimated parametrically and non-parametrically using the SAS® statistical software. In the majority of cases, there was little difference between the estimates.

Regression with distance

The SAS® statistical software was used to create simple linear regression models to predict Cadmium, Copper, Lead, Tin, and Zinc concentrations as a function of distance from the H. Kramer property's center. The statistical methods employed were drawn from SAS® literature and three regression texts: Statistical Methods in Water Resources, 1992; and Applied Regression Analysis and Other Multivariate Methods, 1978 and 1988.

The steps used to perform simple linear regression were:

- 1. Plot the data:
- 2. Compute the least squares regression statistics;
- 3. Examine adherence to the assumptions of regression using residual plots; and
- 4. Employ regression diagnostics (Helsel and Hirsch, 1992).

Results and Conclusions

Basic Statistics

The basic (descriptive) statistics for the three near residential areas are presented in Figure 4. The figures demonstrate a decline in metal levels as one gets farther away from the H. Kramer site going in the north, northeast, and east directions. Nonetheless there were still elevated Lead levels in Res 2 (median value of 930ppm) and in Res 3 (median value of 410ppm).

Multiple Comparisons

There was a significant difference between the eight areas and the USGS dataset for Cadmium, Copper, Lead, and Zinc (shown by one-way ANOVA on ranked data; results not shown). The Tukey-Kramer multiple comparison results for Lead are shown in Figure 5. A visual representation of the multiple comparisons for Cadmium, Copper, Lead, and Zinc is presented in Figure 6.

In Figure 6, the colored ovals represent areas with metal values that were not statistically different from each other. For example, the levels of Lead were not significantly different for samples from the RR, Alley, W, Res1, OS, and Res2. (Where RR is Railroad, Alley is Alley, W is West, Res1 is Res1, OS is on-site, and Res2 is Res2.) In contrast, the USGS and LI (Little Italy) area had significantly lower Lead levels than all of the above areas. But not significantly different Lead levels than in Res3. The blue oval, that overlaps both the grey and purple ovals, shows that although Res3 had statistically lower Lead levels than RR, Alley, W, and Res1, its levels were not significantly different than OS and Res2.

In general the figure demonstrates, when viewing from left to right, that Res1 and Res2 were not statistically different from each other. And, save for Copper, were not statistically different than the areas RR, Alley, OS (i.e., soils on and near the H. Kramer property). Lead samples from the West (i.e., Harrison Park area) were often not statistically different from Res1 and/or Res2 and some of the RR, Alley, OS areas. However, the elevated Lead levels in the West area are believed to be from a different source or sources, independent of H. Kramer. Additionally, the USGS dataset, Res3, and Little Italy often had significantly lower metal levels than all other areas. Additionally, these three areas were not statistically different from each other for all four metals.

Confidence Limits

The confidence limits, by area and the USGS dataset are shown in Figure 7. (A 95% confidence limit "means that if you took repeated random samples from a population and calculated the mean [or median] and confidence limits for each sample, the confidence interval for 95% of your samples would include the parametric mean [or median]" (McDonald, 2009). As can be seen in Figure 7, the confidence limits for the median Zinc to Lead ratios ("signatures") for the soils on and near the H. Kramer property (i.e., RR, Alley, On-site) overlap with that of Res1.

Statistically, the Zinc to Lead confidence limit for Res1 was no different than those for the RR, Alley, and On-site samples. This overlapping signature became less and less similar with Res2 and less so with Res3. The confidence limit for the "West" samples had a very different Zinc to Lead signature (the confidence limit) than the RR, Alley, On-site, Res1, and Res2 samples.

The importance of these confidence limits is to point out the overlap in median Zinc to Lead ratios observed in soil from areas adjacent to and on the H. Kramer property (i.e., Alley, RR, On-Site) and the impacted, near residential areas (Res1 and Res2). They also demonstrated the different contamination signature of the elevated metal levels in the West samples.

Regression with distance

The regression of metals levels (Cadmium, Copper, Lead, Tin, and Zinc) with distance from the H. Kramer site was statistically significant for each metal. Figures 8 through 12 show these relationships and associated statistical outputs. (The regression was performed on the natural log of the metals levels and distance in order to meet the assumptions of regression, specifically the homoscedasticity of residuals.) The slope for each of these regression equations was statistically significant and negative, indicating a decrease in metal concentrations with distance from H. Kramer. (See the "parameter estimate" for the LN_dist variable in the statistical output inset in each figure.) Additionally, these findings confirm the wind-borne conceptual site model. Moreover, these findings demonstrate that other potential sources, e.g., National Lead to the Northeast and Loewenthal to the East are not the source of these elevated metal levels. If the latter were true, metal levels would increase with distance from the site to these locations.

Summary

Overall, the EPA Fields Group's Statistical Analysis of Cadmium, Copper, Lead, Tin, and Zinc found at and near the H. Kramer facility indicates that H. Kramer is a significant contributor for elevated lead in residential surface soil in the RR/Alley, Res 1 and Res 2. However, the analyses could not conclude that there was lead contribution from H. Kramer in residential surface soils in Res 3. Further, Res 3 lead levels in surface soil indicate contributions from other industrial sources. Finally, the analysis indicated no apparent lead contribution in surface soil, from H. Kramer, in Harrison Park.

References

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"Concentrations of Polynuclear Aromatic Hydrocarbons and Inorganic Constituents in Ambient Surface Soils, Chicago, Illinois: 2001-2002". United States Geological Survey and the Chicago Department of Environment. Water-Resources Investigations Report 03-4105. Urbana, Illinois. 2003.

Kleinbaum, D.G. and Kupper, L.L., <u>Applied Regression Analysis and Other Multivariate</u> Methods, Duxbury Press, Boston, Massachusetts, 1978.

Kleinbaum, D.G., Kupper, L.L., and Muller, K.E., <u>Applied Regression Analysis and Other Multivariate Methods</u>, Second Edition. PWS-Kent Publishing Company, Boston, Massachusetts, 1988.

McDonald, J.H., <u>Handbook of Biological Statistics</u>, Second edition. Sparky House Publishing, Baltimore, Maryland, 2009.

SAS Institute Inc., <u>SAS/STAT[®] User's Guide</u>, <u>Version 9.2</u>, Cary, NC: SAS Institute Inc., 2011. (The GLM Procedure, Multiple Comparisons)

Contact

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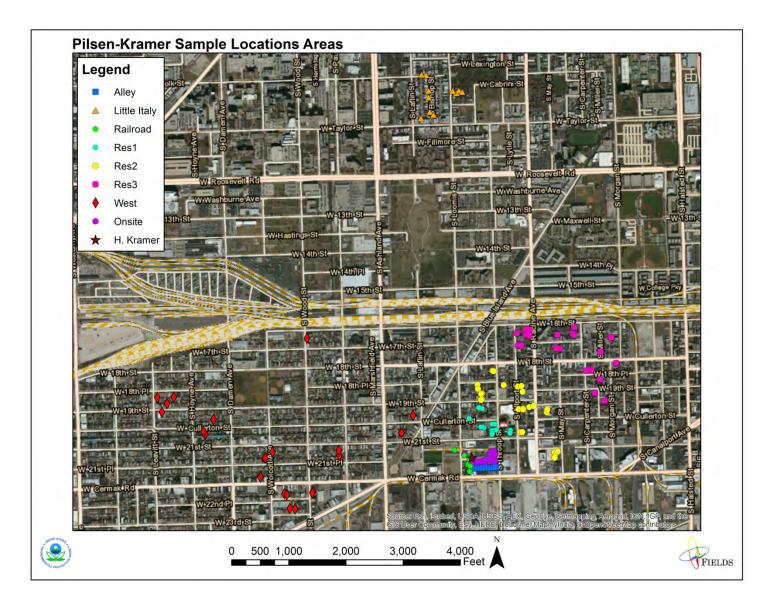


Figure 1: USEPA Sample locations and areas

CHICAGO/MIDWAY 86-year summary: 1928 - 2013

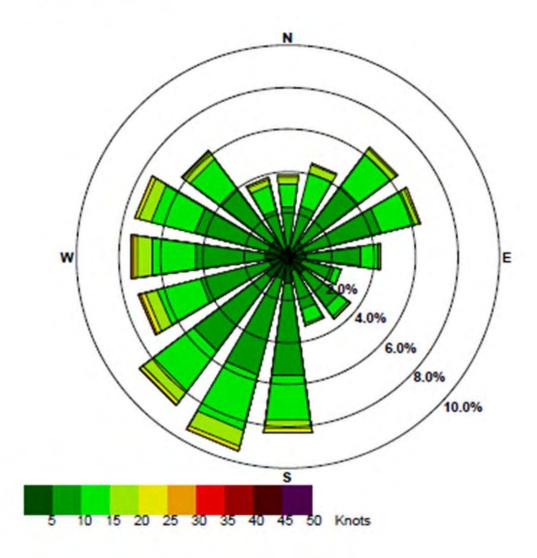


Figure 2: Windrose for the Pilsen-Kramer area and environs. Note that "arms" in the figure represent the direction from which the wind blows; the lengths represent the proportion of the time the wind came from each direction (i.e., the frequency). Hence, for this wind rose, the predominant winds are from the west and the south.

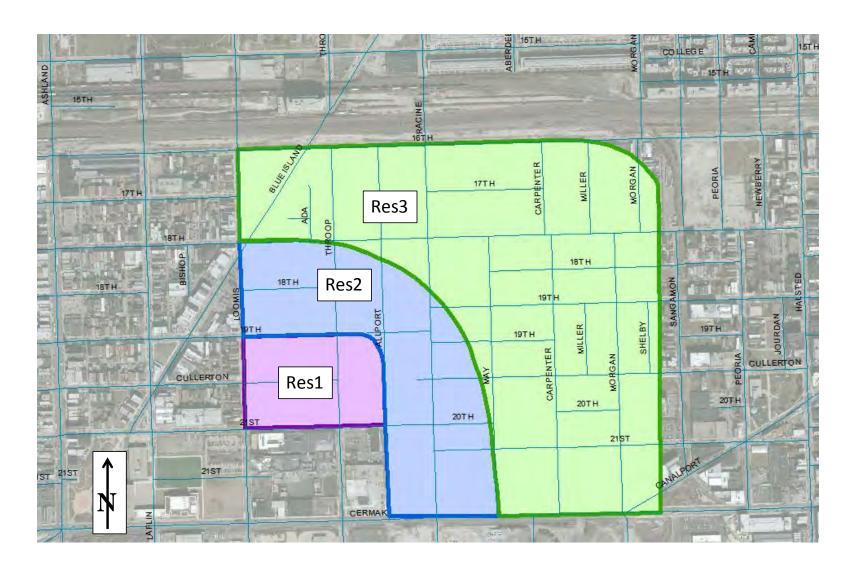


Figure 3: Near residential areas: Res1, Res2, and Res3.

Res1	mean	median	SD	N
Cd	7	7	5	14
Sb	11	3	14	14
Sn	80	59	60	14
Cu	535	425	447	14
Pb	1484	1850	904	14
Zn	2871	2650	2017	14
Res2				
Cd	4	4	3	27
Sb	4	5	1	27
Sn	38	28	30	27
Cu	207	190	133	27
Pb	1054	930	676	27
Zn	1320	970	906	29
Res3				
Cd	3	3	2	21
Sb	5	5	1	21
Sn	20	16	11	21
Cu	80	64	39	21
Pb	648	410	516	21
Zn	479	380	315	21

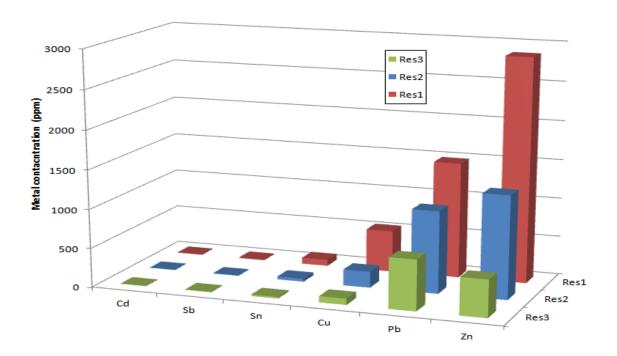


Figure 4: Basic Statistics

Proc GLM and post-hoc tests of differences; Ranks of Lead Levels by Area Pilsen-Kramer Superfund Site USEPA sampling (2012-2013), USGS-City of Chicago background data, and on-site data

The GLM Procedure Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer

Area3	Lead_r LSMEAN	LSMEAN Number
Alley	134.318182	1
L_Italy	49.409091	2
On_site	109.000000	3
RR	156.500000	4
Res_1	127.785714	5
Res_2	107.629630	6
Res_3	82.000000	7
USGS	54.701754	8
West	128.857143	9

	Least Squares Means for effect Area3 Pr > t for H0: LSMean(i)=LSMean(j) Dependent Variable: Lead_r											
i/j	1	2	3	4	5	6	7	8	9			
1		0.0002	0.8458	0.9813	1.0000	0.6981	0.0274	<.0001	1.0000			
2	0.0002		0.0133	<.0001	0.0002	0.0047	0.4877	1.0000	<.0001			
3	0.8458	0.0133		0.3242	0.9549	1.0000	0.6142	0.0005	0.8974			
4	0.9813	<.0001	0.3242		0.8964	0.2041	0.0055	<.0001	0.8883			
5	1.0000	0.0002	0.9549	0.8964		0.8737	0.0477	<.0001	1.0000			
6	0.6981	0.0047	1.0000	0.2041	0.8737		0.4792	<.0001	0.7233			
7	0.0274	0.4877	0.6142	0.0055	0.0477	0.4792		0.2182	0.0116			
8	<.0001	1.0000	0.0005	<.0001	<.0001	<.0001	0.2182		<.0001			
9	1.0000	<.0001	0.8974	0.8883	1.0000	0.7233	0.0116	<.0001				

Figure 5: Tukey-Kramer multiple comparison results.

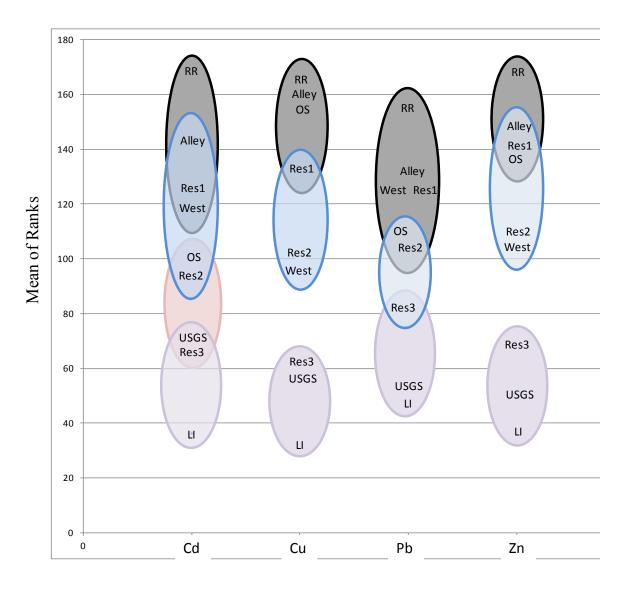


Figure 6: Cumulative schematic of the multiple comparisons by area and metal. Where LI is Little Italy, USGS is the USGS – Chicago Department of Environment dataset, Res1, Res2, and Res3 are as defined before, W is West, OS is on-site, Alley is Alley, and RR is Railroad. Where the Y-axis is the "Ismeans" value for each metal and dataset (the mean of the ranked values). Areas in the same colored ovals are not statistically different from each other; areas in different colored ovals are statistically different from each other.

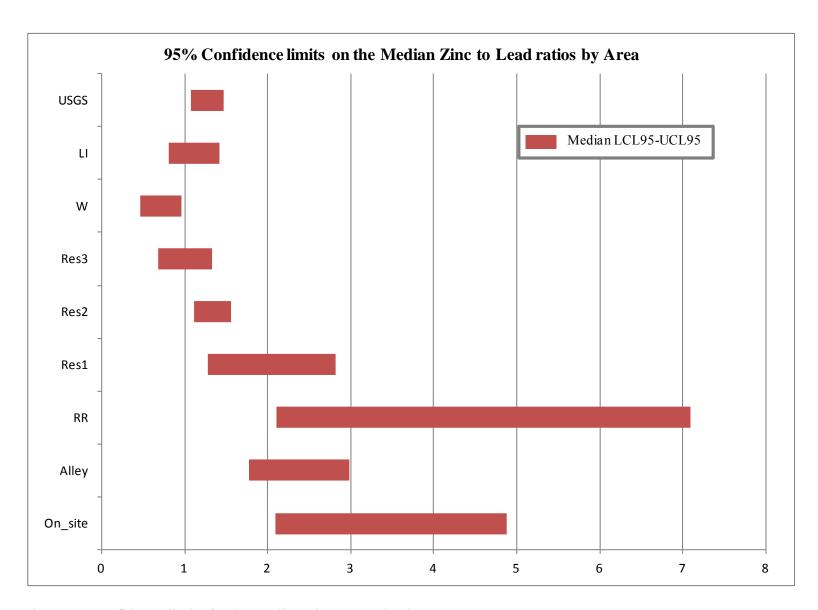


Figure 7: Confidence limits for the median Zinc to Lead ratio.

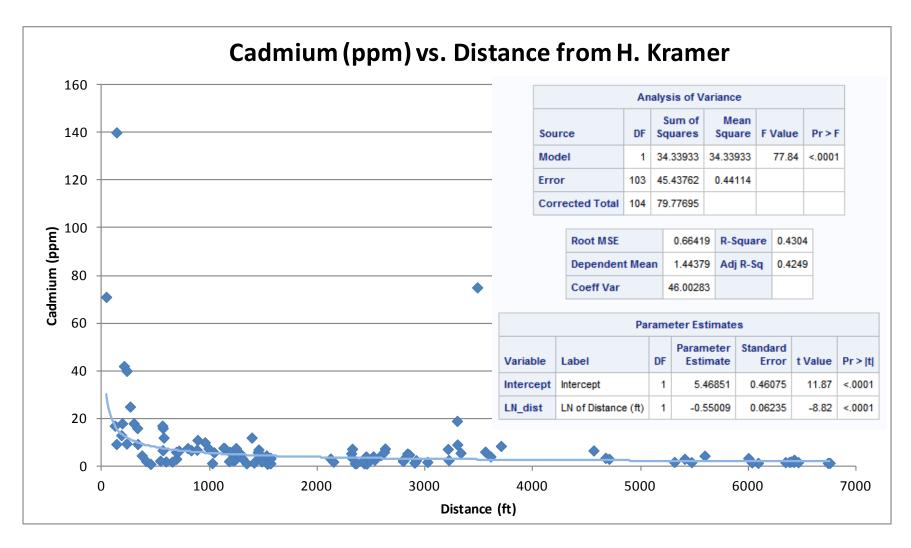


Figure 8: Cadmium levels as a function of distance from H. Kramer. Statistical output is shown in the inset.

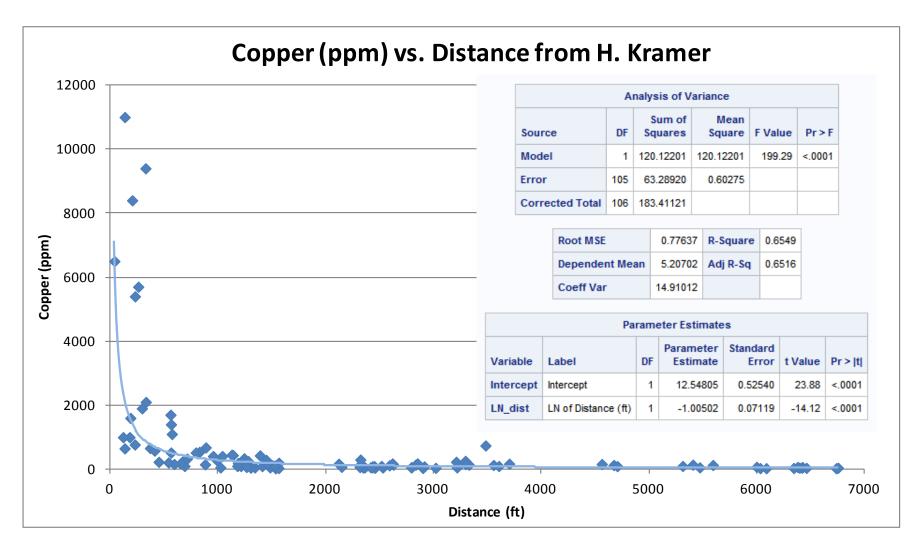


Figure 9: Copper levels as a function of distance from H. Kramer. Statistical output is shown in the inset.

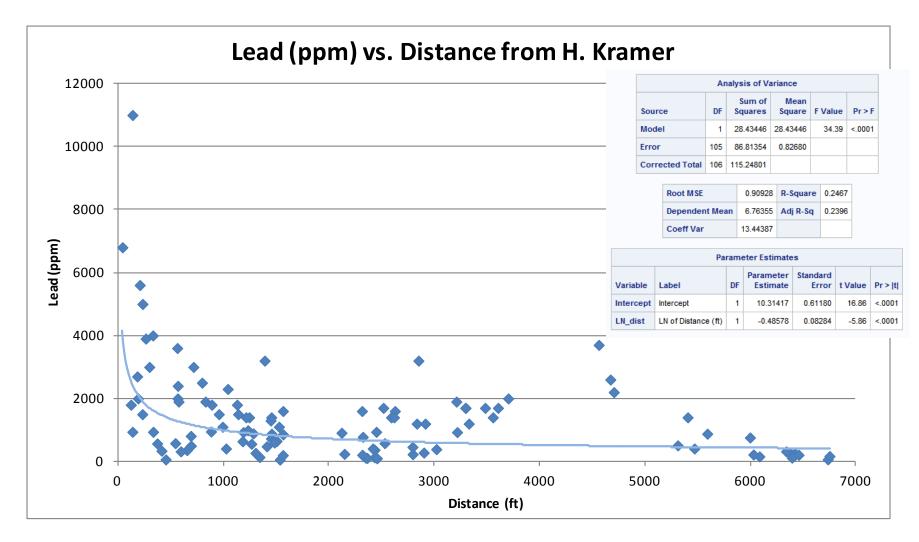


Figure 10: Lead levels as a function of distance from H. Kramer. Statistical output is shown in the inset.

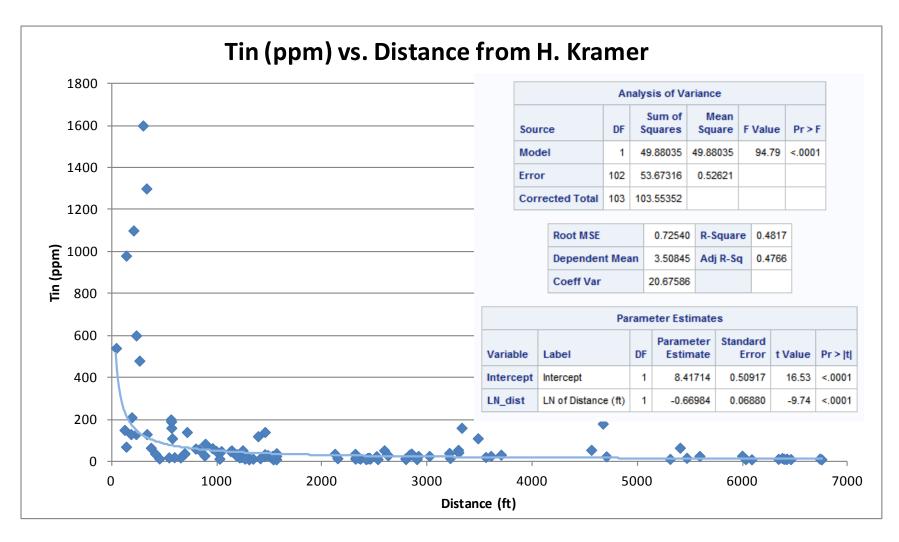


Figure 11: Tin levels as a function of distance from H. Kramer. Statistical output is shown in the inset.

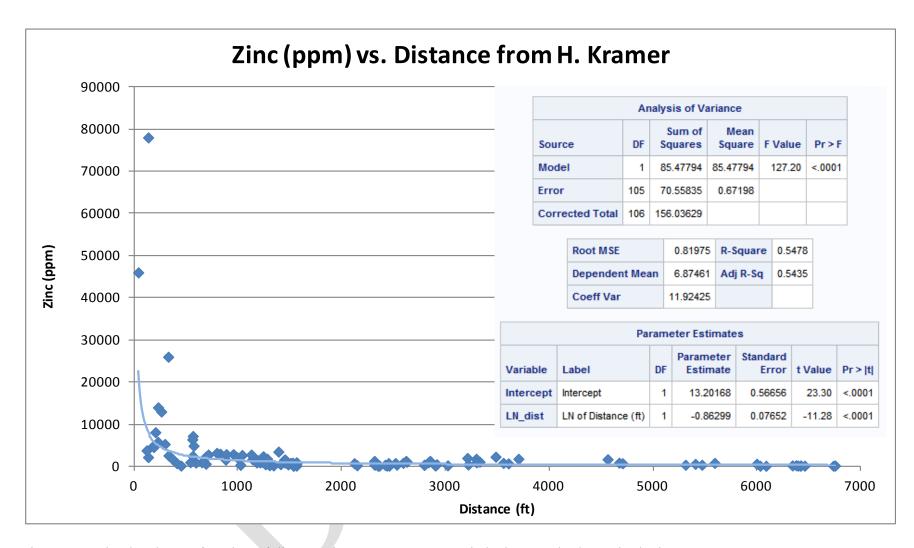


Figure 12: Zinc levels as a function of distance from H. Kramer. Statistical output is shown in the inset.