



Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

Barbara A. Lee, Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Edmund G. Brown Jr.
Governor

June 21, 2016

Robert Laughton, LEED AP
Director, Environmental Health and Safety
Los Angeles Unified School District
333 South Beaudry Avenue, Floor 21
Los Angeles, CA 90017

RESULTS OF SOIL SAMPLING AT ROWAN AVENUE ELEMENTARY SCHOOL, 600 SOUTH ROWAN AVENUE, LOS ANGELES, CALIFORNIA 90023; EXPANDED AREA SCHOOL SCH-09

Dear Mr. Laughton,

Enclosed with this letter are the results of the soil sampling conducted at the Rowan Avenue Elementary School (Expanded Area School - SCH-009) located at 600 South Rowan Avenue, Los Angeles, California (Property). Avocet Environmental, Incorporated (Avocet) conducted that soil sampling on July 6, 2015 in accordance with the DTSC-approved sampling work plan dated July 26, 2014.¹ The results of the July 6, 2015 sampling area enclosed.

Laboratory analysis of a five-part composite soil sample collected from four depths below ground surface (0-1", 1-3", 3-6", 6-12", and 12-18"), detected lead at concentrations of 68.6 parts per million (ppm), 70.1 ppm, 112 ppm, 52.6, and 29.9 ppm, respectively. In accordance with the approved work plan, since the 3-6" composite soil sample (SCH-07-06) exceeded the *residential screening level* of 80 ppm, five (5) discrete samples collected at 3-6" depth interval were analyzed for lead separately. Two (2) of the five discrete samples collected at locations 2D, and 5D had lead concentrations below 80 ppm; three of the samples had concentrations of lead at 105 ppm, 139 ppm, and 193 ppm at locations 1D, 3D and 4D, respectively (see enclosed Avocet report).

In 2009, DTSC adopted the California Environmental Protection Agency Office of Environmental Health Hazard Assessment's (OEHHA) residential soil screening level of 80 ppm for lead. The residential screening level was derived using the modeling spreadsheet "Leadsread," which at 80 ppm predicted an increase in blood lead of 1 microgram per deciliter (ug/dL) at the 90th percentile for a population of children exposed to lead in soils at their home, and a subsequent decrease of one IQ point in the children. However, if the frequency of exposure is adjusted from seven days a week to

¹ Advanced GeoServices Corporation; "Addendum to the November 15, 2013 Work Plan for Off-site Soil Sampling", July 26, 2014.

Mr. Robert Laughton
June 21, 2016
Page 2

five days a week (a typical school week), the concentration of lead increases to 110 ppm for a child.

DTSC's Human Health and Ecological Risk Office has reviewed the data and has made recommendations based on the information discussed above and consideration of site-specific parameters in the enclosed memorandum dated June 27, 2016. Since some of these concentrations were above the screening level for a school child (110 mg/kg); DTSC believes that further sampling to delineate the extent of the contamination and to obtain a more robust dataset is warranted.

If you have any questions regarding this letter, please contact me at (916) 255-3630 or at Peter.Ruttan@dtsc.ca.gov.

Sincerely,



Peter Ruttan
Project Manager
Legacy Landfills Office

Enclosures (2)

cc: (via email)
Mr. Pat Schanen, LAUSD
Mr. Bill Piazza, LAUSD



Mathew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

Barbara Lee
Director
5796 Corporate Avenue
Cypress, California 90630



Edmund G. Brown Jr.
Governor

TO: Peter Ruttan, P.G.
Project Manager
Department of Toxic Substances Control
Sacramento, California

FROM: Shukla Roy-Semmen, Ph.D.
Staff Toxicologist
Human and Ecological Risk Office

DATE: June 27, 2016

SUBJECT: Review of soils data collected from Rowan Avenue Elementary School, located in the vicinity of the former Exide secondary smelter in Vernon, California.

PCA: 11006

Site Code: 900219-00

At the request of the program, the Human and Ecological Risk Office (HERO) reviewed soils data collected from the elementary school called Rowan Avenue School located on 600 South Rowan Avenue, Los Angeles, California. The data were presented in "Attachment 1, July 2015 Soil Sampling Field Activities Report, Los Angeles Unified School District Schools, July 31, 2015". The report was prepared for Exide Technologies, by Advanced GeoServices and Avocet, and is dated July 30, 2015. Rowan Avenue School was one of eleven (11) schools evaluated for lead contamination as part of environmental investigations conducted for the secondary lead smelter, Exide Technologies, located in Vernon California.

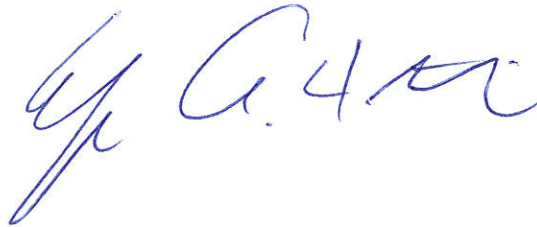
Five soil samples from five locations (SCH-09-1D to SCH-09-5D) were collected from five depths (0-1", 1-3", 3-6", 6-12" and 12-18") below ground surface (bgs) at each location, and composited by depth to obtain five composite samples. These composite samples were analyzed for lead and one of the composite samples collected from 3-6" was found have lead levels (112 ppm) above the residential screening level of 80 ppm. To further investigate the source of these elevated levels, the discrete soils samples collected from this depth were analyzed for lead. Lead concentrations at two locations at the 3-6" depth (SCH-09-3D and SCH-09-4D) were 139 ppm and 163 ppm, respectively. These levels are higher than a soil screening level of 110 mg/kg, which was derived for a school child who attends the school five days a week, each year.

A review of the figure provided in the report indicates that the Rowan Avenue School is largely paved with soils accessible for sampling present only in planter areas. We recommend additional discrete sampling in these locations to delineate the extent of the contamination. At least 8 samples should be collected to allow for statistical analysis of the soils dataset. Alternatively, a site-specific assessment can be presented for DTSC's review.

HERO notes that the decisions made in this document are site specific and should not be construed as a policy decision applicable to other sites. If you have additional questions please feel free to contact me at (714) 484-5448 or SRoysemm@dtsc.ca.gov.

Reviewed by: Jim Polisini, Ph.D.
Supervising Toxicologist
Human and Ecological Risk Office

For J.P.

A handwritten signature in blue ink, appearing to be "A.4M" with a stylized flourish.

ATTACHMENT 1

**July 2015 Soil Sampling Field Activities Report
Los Angeles Unified School District Schools**

July 31, 2015

July 31, 2015

2013-3007-09

Pat Schanen, Environmental Health Manager
Office of Environmental Health and Safety
Los Angeles Unified School District
333 South Beaudry Avenue, 28th Floor
Los Angeles, CA 90017

RE: Revised Report on LAUSD K-12 School Sampling
Select Areas of Maywood, Huntington Park and Los Angeles, California

Dear Mr. Schanen:

Enclosed is a revised report on the school sampling that Advanced GeoServices performed on behalf of Exide Technologies. The comments that you provided on the report dated July 23 have been incorporated, and a revised table and report is attached. This report is also being provided to the California Department of Toxic Substances Control.

If you have any further questions, please contact me at 610-840-9145 or by email at bforslund@advancedgeoservices.com.

Respectfully submitted,

ADVANCED GEOSERVICES CORP.



Barbara L. Forslund
Consultant

BLF:vm

cc: Peter Ruttan, DTSC
Eileen Ma, LAUSD
Jay Golida, LAUSD
Paul Straman, Advanced GeoServices
Fred Ganster, Exide
John Hogart, Exide
Tom Strang, Exide
Randy Visser, Sheppard Mullin

EXIDE VERNON
2014 - 2015 Residential Soil Sampling
Lead Results

Sample Location(s): SCH-06 through SCH 10

Sample Date: 7/6/2015

Sample Depth	SCH-06	SCH-07	SCH-08	SCH-09	SCH-10
0-1"	29.2	81.7	52.7	68.6	11
1-3"	17	87.3	37.9	70.1	13.8
3-6"	17.6	81.5	47.6	112	13.1
6-12"	43.6	66.4	75.6	52.6	16.2
12-18"	13.6	17.1	25.8	29.9	10.2

Samples are composites

All lead results reported in mg/kg

Sample Location(s): SCH-11 through SCH 16

Sample Date: 7/7/2015

Sample Depth	SCH-11	SCH-12	SCH-13	SCH-14	SCH-15	SCH-16
0-1"	155	12.4	88.1	31.3	43.1	39.5
1-3"	207	19	74.8	19.4	52.2	42.1
3-6"	44.6	28	70.4	17.7	33.4	70.7
6-12"	43.6	27.1	45.3	16.5	23.5	48
12-18"	15.6	12.7	22.1	19.4	16.6	18.4

Samples are composites

All lead results reported in mg/kg

NOTE: Sample locations SCH-01 through SCH-05 are at private schools not owned by LAUSD





July 30, 2015

Project No. 1325.007

Ms. Barbara Forslund, P.E.
ADVANCED GEOSERVICES CORP.
1055 Andrew Drive, Suite A
West Chester, Pennsylvania 19380

July 2015 Soil Sampling Field Activities Report
Los Angeles Unified School District Schools
Los Angeles County, California

Dear Ms. Forslund:

This letter report documents the soil sampling procedures at 11 Los Angeles Unified School District (LAUSD) schools on July 6 and 7, 2015. The work described herein was performed in association with the Exide Technologies offsite subsurface soil sampling program, which has analyzed lead concentrations on private and public properties throughout many parts of East Los Angeles, Maywood, Huntington Park, and the surrounding communities. Specifics regarding the names and addresses of the individual schools, among other details, are summarized in Table 1. A site vicinity map identifying the locations of the schools is included as Figure 1.

REGULATORY OVERSIGHT

Access to the school properties was made possible by Mr. Bill Piazza, LAUSD's environmental assessment coordinator. Mr. Piazza also managed interactions with school personnel and provided general site supervision on behalf of the LAUSD. Regulatory oversight and public relations were provided by Mr. Peter Ruttan of the California Department of Toxic Substances Control (DTSC). Mr. Piazza and Mr. Ruttan observed the sampling crew at each school to verify the suitability of sample locations and to ensure proper sampling protocol in accordance with Advanced GeoServices Corp.'s (AGC's) November 15, 2013 Work Plan and its July 26, 2014 Addendum.

FIELD METHODS

Avocet was retained by AGC to complete a composite soil sampling program that involved the collection of discrete soil samples from the approximate depths of 1, 3, 6, 12, and 18 inches below ground surface (bgs) at five unique boring locations at each school. For every school, five composite samples, one from each depth interval, were prepared and submitted for chemical analysis. The samples were collected from grassy play areas, sports fields, or other common areas where students are likely to come into contact with exposed soil. For properties with limited exposed soil or where the playground is predominantly asphalt, samples were collected inside of tree wells. The approximate locations of the soil samples collected at each of the schools are illustrated in Figures 2 through 12.

July 2015 Soil Sampling Field Activities Report

Los Angeles Unified School District Schools
Los Angeles County, California

Page 2
July 30, 2015

Representative soil samples were collected at depth using either a freshly decontaminated trowel or hand auger. The soil was transferred directly into plastic bags that were then sealed and labeled as discrete samples with the sample identification code, date, and the time at which the sample was collected. Each shallow boring was backfilled upon completion with soil cuttings, tamped for light compaction, and topped with planting soil to match grade. Sampling tools were decontaminated between each boring by washing with laboratory-grade, phosphate-free detergent and then rinsed using deionized water. Fresh nitrile gloves were donned by field personnel between each boring and as necessary to prevent cross-contamination between soil samples.

The composite samples submitted for laboratory analysis were collected by measuring equal volumes of soil from each of the five discrete soil samples collected at a given depth throughout the school and then combined and thoroughly mixed in a sealed plastic bag. An aliquot of the mixed composite sample was then transferred into a sterile plastic bag that was sealed, labeled, placed in a cooler, and delivered to the analytical laboratory that same day. In all, five composite samples were collected from each school for laboratory testing, one for each depth interval listed above.

The composite soil samples were submitted, under appropriate chain-of-custody procedures, to Eurofins Calscience, a certified environmental laboratory located in Garden Grove, California, for analysis for lead using U.S. Environmental Protection Agency (EPA) Method 6010B. The remaining discrete soil samples were placed in a labeled container at Exide pending possible future analysis.

In addition to the soil samples, two equipment blank samples, one at the end of each work day, were collected by capturing analytical laboratory-provided water poured across a previously decontaminated hand trowel. The equipment blank samples were also analyzed for lead using EPA Method 6010B.

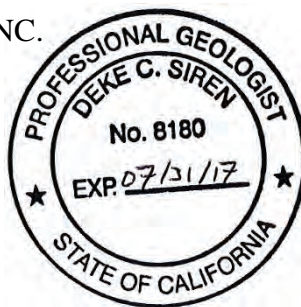
It should be noted that one discrete sample from the 18-inch depth interval (Location 5D) at Eastman Avenue Elementary School could not be collected due to tree roots. Therefore, the composite sample from the 18-inch depth interval (SCH-11-18) is comprised of equal volumes of soil from four rather than five discrete sample locations.

Respectfully submitted,

AVOCET ENVIRONMENTAL, INC.



Deke Siren, P.G.
Project Manager



DCS:sh
Attachments

P:\1325 AGC-Exide_Vernon\007_Offsite Soil Sampling\LAUSD Sch Sites\SupportingDocs\LAUSD Sampling Procedures_2015-07-30.docx



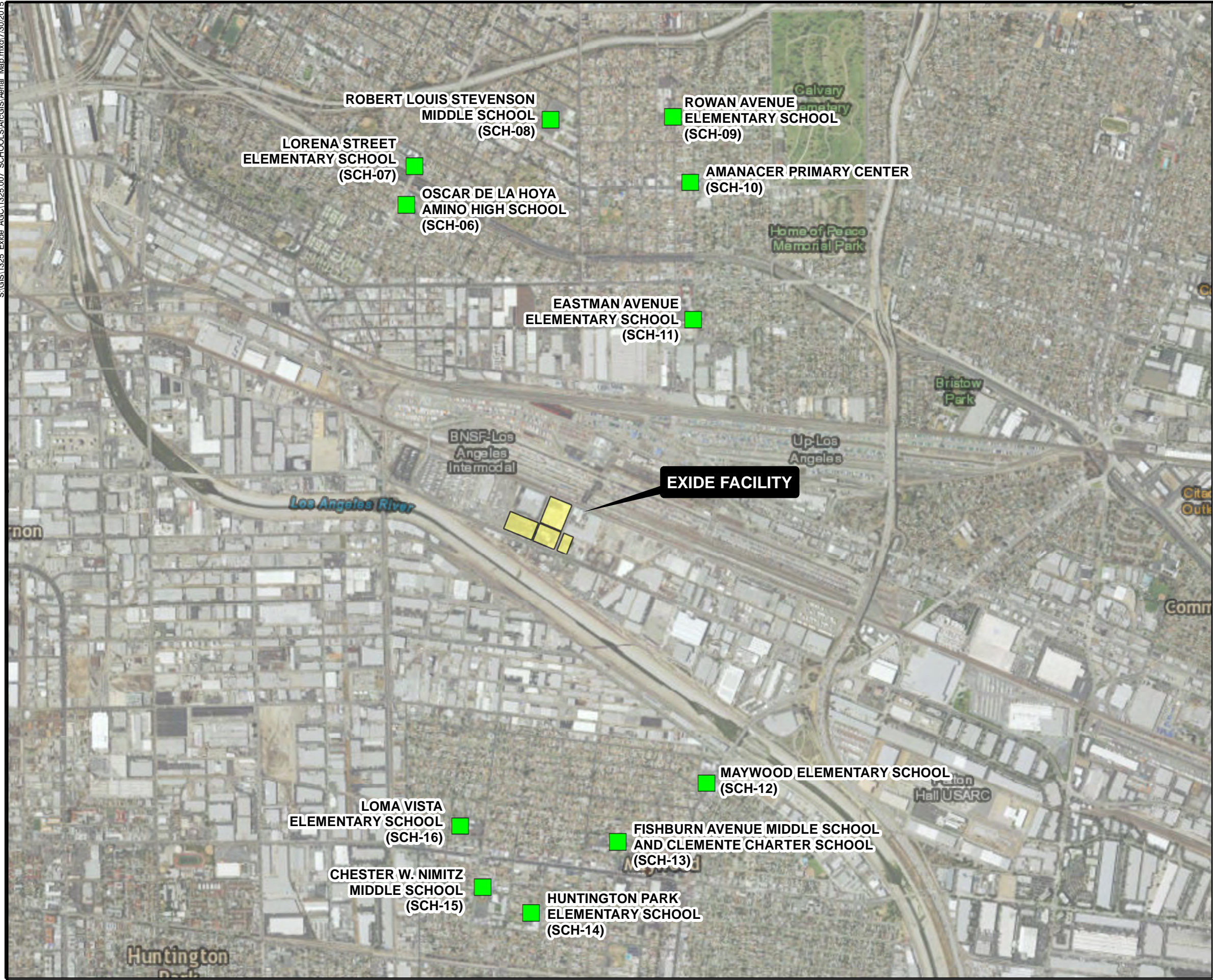
Tables

Table 1
List of LAUSD Schools Sampled
Los Angeles County, California



School ID (for sampling purposes)	School Name	Address	Date Sampled	Number of Samples
SCH-06	Oscar De La Hoya Animo High School	1114 South Lorena Street Los Angeles, CA 90023	07/06/15	5
SCH-07	Lorena Street School	1015 South Lorena Street Los Angeles, CA 90023	07/06/15	5
SCH-08	Robert Louis Stevenson Middle School	725 South Indiana Street Los Angeles, CA 90023	07/06/15	5
SCH-09	Rowan Avenue School	600 South Rowan Avenue Los Angeles, CA 90023	07/06/15	5
SCH-10	Amanecer Primary Center	832 South Eastman Avenue Los Angeles, CA 90023	07/06/15	5
SCH-11	Eastman Avenue School	4112 East Olympic Boulevard Los Angeles, CA 90023	07/07/15	5
SCH-12	Maywood School	5200 Cudahy Avenue Maywood, CA 90270	07/07/15	5
SCH-13	Fishburn Avenue Middle School and Clemente Charter	5701 Fishburn Avenue Maywood, CA 90270	07/07/15	5
SCH-14	Huntington Park School	6055 Corona Avenue Huntington Park, CA 90255	07/07/15	5
SCH-15	Chester W. Nimitz Middle School	6021 Carmelita Avenue Huntington Park, CA 90255	07/07/15	5
SCH-16	Loma Vista	3629 East 58 th Street Maywood, CA 90270	07/07/15	5

Note: School IDs SCH-01 through SCH-05 are for schools not owned by LAUSD

Figures



EXPLANATION

-  School Location
-  Exide Property

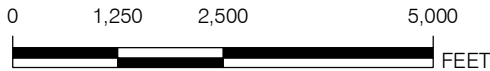


FIGURE 1


LOS ANGELES UNIFIED SCHOOL DISTRICT SITE VICINITY MAP


EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





EXPLANATION

 Sample Location

 68' Distance in Feet

NOTE:
FIGURE NOT TO SCALE

FIGURE 2

**OSCAR DE LA HOYA
AMINO CHARTER SCHOOL**

EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





EXPLANATION

■ Sample Location

↔ 68' ↔ Distance in Feet

NOTE:
FIGURE NOT TO SCALE

FIGURE 3
LORENA STREET SCHOOL
EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





EXPLANATION

■ Sample Location

←68'→ Distance in Feet

NOTE:
FIGURE NOT TO SCALE

FIGURE 4
**ROBERT LOUIS STEVENSON
MIDDLE SCHOOL**
EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





EXPLANATION

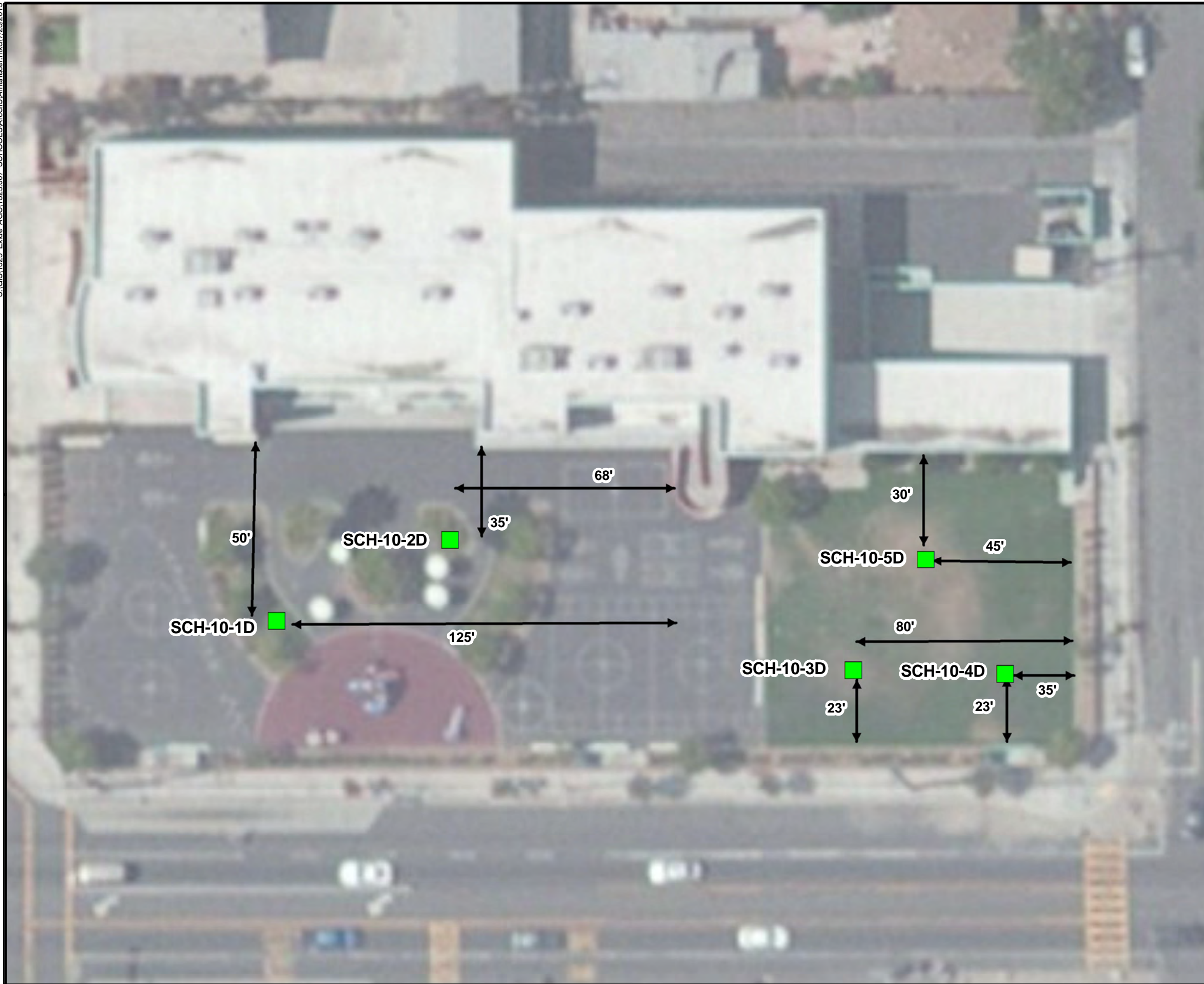
■ Sample Location

← 68' → Distance in Feet

NOTE:
FIGURE NOT TO SCALE

FIGURE 5
ROWAN AVENUE SCHOOL
EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





EXPLANATION

■ Sample Location

↔ Distance in Feet

NOTE:
FIGURE NOT TO SCALE



FIGURE 6
AMANACER PRIMARY SCHOOL
EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





EXPLANATION

■ Sample Location

↔ 68' ↔ Distance in Feet

NOTE:
FIGURE NOT TO SCALE

FIGURE 7

**EASTMAN AVENUE
ELEMENTARY SCHOOL**

EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





EXPLANATION

■ Sample Location

↔ 68' ↔ Distance in Feet

NOTE:
FIGURE NOT TO SCALE

FIGURE 8

MAYWOOD ELEMENTARY

EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





EXPLANATION

■ Sample Location

← 68' → Distance in Feet

NOTE:
FIGURE NOT TO SCALE

FIGURE 9

**FISHBURN AVENUE MIDDLE SCHOOL
AND CLEMENTE CHARTER SCHOOL**

EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





EXPLANATION

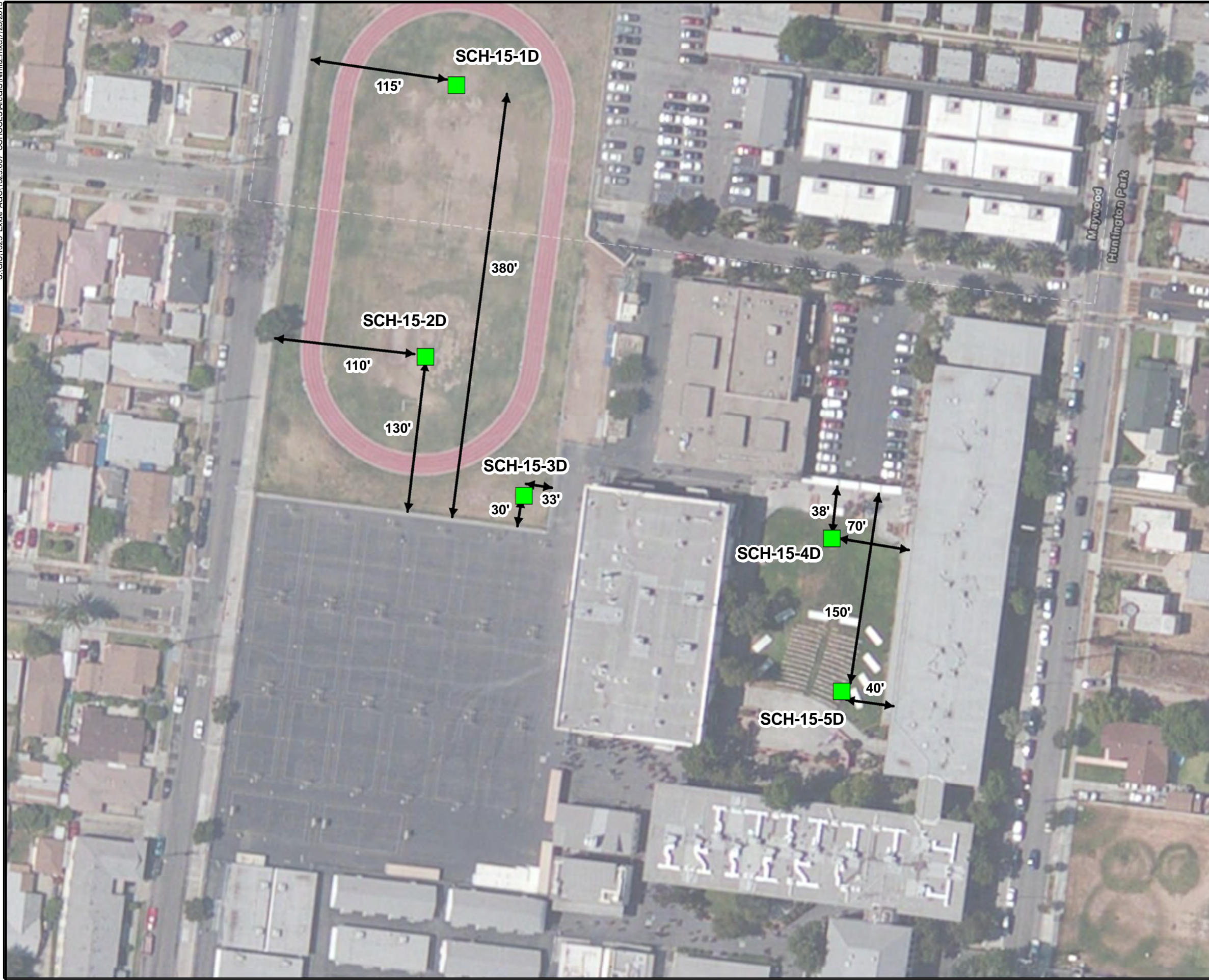
 Sample Location

 68' Distance in Feet

NOTE:
FIGURE NOT TO SCALE

FIGURE 10
**HUNTINGTON PARK
ELEMENTARY SCHOOL**
EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





EXPLANATION

■ Sample Location

←68'→ Distance in Feet

NOTE:
FIGURE NOT TO SCALE

FIGURE 11

**CHESTER W. NIMITZ
MIDDLE SCHOOL**

EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





EXPLANATION

■ Sample Location

↔ 68' ↔ Distance in Feet

NOTE:
FIGURE NOT TO SCALE

FIGURE 12
**LOMA VISTA
ELEMENTARY SCHOOL**
EXIDE TECHNOLOGIES
2700 SOUTH INDIANA STREET
VERNON, CALIFORNIA





Calscience



WORK ORDER NUMBER: 15-07-0228

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Advanced GeoServices Corporation

Client Project Name: Exide Vernon Offsite / 2013-3007-09

Attention: Adam Doubleday
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Amanda Porter

Approved for release on 07/20/2015 by:
Amanda Porter
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: Exide Vernon Offsite / 2013-3007-09
Work Order Number: 15-07-0228

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5	Glossary of Terms and Qualifiers.	13
6	Chain-of-Custody/Sample Receipt Form.	14

Work Order: 15-07-0228

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/06/15. They were assigned to Work Order 15-07-0228.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/06/15
Work Order: 15-07-0228
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-06-01	15-07-0228-1-A	07/06/15 08:40	Solid	ICP 7300	07/08/15	07/10/15 00:42	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.2	0.478		0.957		
SCH-06-03	15-07-0228-2-A	07/06/15 08:43	Solid	ICP 7300	07/08/15	07/10/15 00:45	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		17.0	0.481		0.962		
SCH-06-06	15-07-0228-3-A	07/06/15 08:46	Solid	ICP 7300	07/08/15	07/10/15 00:45	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		17.6	0.521		1.04		
SCH-06-12	15-07-0228-4-A	07/06/15 08:49	Solid	ICP 7300	07/08/15	07/10/15 00:46	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		43.6	0.483		0.966		
SCH-06-18	15-07-0228-5-A	07/06/15 08:52	Solid	ICP 7300	07/08/15	07/10/15 00:47	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		13.6	0.493		0.985		
SCH-07-01	15-07-0228-6-A	07/06/15 09:50	Solid	ICP 7300	07/08/15	07/10/15 00:48	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		81.7	0.500		1.00		
SCH-07-03	15-07-0228-7-A	07/06/15 09:53	Solid	ICP 7300	07/08/15	07/10/15 00:48	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		87.3	0.518		1.04		
SCH-07-06	15-07-0228-8-A	07/06/15 09:56	Solid	ICP 7300	07/08/15	07/10/15 00:49	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		81.5	0.498		0.995		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/06/15
Work Order: 15-07-0228
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-07-12	15-07-0228-9-A	07/06/15 09:58	Solid	ICP 7300	07/08/15	07/10/15 00:50	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		66.4	0.505		1.01		
SCH-07-18	15-07-0228-10-A	07/06/15 10:05	Solid	ICP 7300	07/08/15	07/10/15 00:50	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		17.1	0.510		1.02		
SCH-08-01	15-07-0228-11-A	07/06/15 11:00	Solid	ICP 7300	07/08/15	07/10/15 00:51	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		52.7	0.483		0.966		
SCH-08-03	15-07-0228-12-A	07/06/15 11:04	Solid	ICP 7300	07/08/15	07/10/15 00:54	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		37.9	0.515		1.03		
SCH-08-06	15-07-0228-13-A	07/06/15 11:08	Solid	ICP 7300	07/08/15	07/10/15 00:55	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		47.6	0.508		1.02		
SCH-08-12	15-07-0228-14-A	07/06/15 11:12	Solid	ICP 7300	07/08/15	07/10/15 00:55	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		75.6	0.521		1.04		
SCH-08-18	15-07-0228-15-A	07/06/15 11:16	Solid	ICP 7300	07/08/15	07/10/15 00:56	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		25.8	0.524		1.05		
SCH-09-01	15-07-0228-16-A	07/06/15 13:10	Solid	ICP 7300	07/08/15	07/10/15 00:57	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		68.6	0.510		1.02		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/06/15
Work Order: 15-07-0228
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-09-03	15-07-0228-17-A	07/06/15 13:14	Solid	ICP 7300	07/08/15	07/10/15 00:57	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		70.1	0.500		1.00		
SCH-09-06	15-07-0228-18-A	07/06/15 13:18	Solid	ICP 7300	07/08/15	07/10/15 00:58	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		112	0.500		1.00		
SCH-09-12	15-07-0228-19-A	07/06/15 13:22	Solid	ICP 7300	07/08/15	07/10/15 00:59	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		52.6	0.510		1.02		
SCH-09-18	15-07-0228-20-A	07/06/15 13:26	Solid	ICP 7300	07/08/15	07/10/15 00:59	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.9	0.521		1.04		
SCH-10-01	15-07-0228-21-A	07/06/15 14:25	Solid	ICP 7300	07/08/15	07/10/15 01:00	150708L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		11.0	0.485		0.971		
SCH-10-03	15-07-0228-22-A	07/06/15 14:28	Solid	ICP 7300	07/08/15	07/10/15 18:14	150708L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		13.8	0.493		0.985		
SCH-10-06	15-07-0228-23-A	07/06/15 14:32	Solid	ICP 7300	07/08/15	07/10/15 18:16	150708L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		13.1	0.478		0.957		
SCH-10-12	15-07-0228-24-A	07/06/15 14:35	Solid	ICP 7300	07/08/15	07/10/15 18:18	150708L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		16.2	0.498		0.995		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/06/15
Work Order: 15-07-0228
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-10-18	15-07-0228-25-A	07/06/15 14:40	Solid	ICP 7300	07/08/15	07/09/15 17:11	150708L04

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Lead	10.2	0.495	0.990	

Method Blank	097-01-002-21388	N/A	Solid	ICP 7300	07/08/15	07/10/15 13:10	150708L03
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Lead	ND	0.505	1.01	

Method Blank	097-01-002-21380	N/A	Solid	ICP 7300	07/08/15	07/09/15 17:04	150708L04
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Lead	ND	0.500	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/06/15
Work Order: 15-07-0228
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-06-01	Sample	Solid	ICP 7300	07/08/15	07/10/15 00:42	150708S03
SCH-06-01	Matrix Spike	Solid	ICP 7300	07/08/15	07/10/15 00:41	150708S03
SCH-06-01	Matrix Spike Duplicate	Solid	ICP 7300	07/08/15	07/10/15 00:41	150708S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	29.24	25.00	48.12	75	46.04	67	75-125	4	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/06/15
Work Order: 15-07-0228
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-10-18	Sample	Solid	ICP 7300	07/08/15	07/09/15 17:11	150708S04
SCH-10-18	Matrix Spike	Solid	ICP 7300	07/08/15	07/09/15 17:08	150708S04
SCH-10-18	Matrix Spike Duplicate	Solid	ICP 7300	07/08/15	07/09/15 17:09	150708S04

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Lead	10.23	25.00	35.37	101	37.18	108	75-125	5	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/06/15
Work Order: 15-07-0228
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-21388	LCS	Solid	ICP 7300	07/08/15	07/10/15 13:13	150708L03

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead	25.00	24.85	99	80-120	

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Calscience

Quality Control - LCS

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/06/15
Work Order: 15-07-0228
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-21380	LCS	Solid	ICP 7300	07/08/15	07/09/15 17:06	150708L04

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead	25.00	25.94	104	80-120	

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Sample Analysis Summary Report

Work Order: 15-07-0228

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	771	ICP 7300	1


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Glossary of Terms and Qualifiers

Work Order: 15-07-0228

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

1055 Andrew Dr. Suite A
West Chester, PA 19380
tel 610.840.9100

ADVANCED GEOSERVICES CORP.
CHAIN OF CUSTODY

Project Name: Exide Vernon Offsite
AGC Contact: Adam Doubleday

Lab Name/Location: Calscience, Garden Grove, CA
Turnaround Time (circle one) **Standard** 5-Day 72-Hour 24-Hour

Project # 2013-3007-09
Shipment #
Shipment Tracking # 0000000000
Deliverables (circle one) Results only **Results/QC summary** CLP-Like

15-07-0228

Lab Use Only	Sample ID	Date	Time	Sample Type (C or G)	Matrix	Field Filtered	# of Containers	ANALYSIS			Preservatives	REMARKS
								LEAD	#60 SEIVE			
1	SCN-06-01	06/15	0840	C	S		1	X				
2	SCN-06-03		0843	C	S		1	X				
3	SCN-06-06		0846	C	S		1	X				
4	SCN-06-12		0849	C	S		1	X				
5	SCN-06-18		0852	C	S		1	X				
6	SCN-07-01		0950	C	S		1	X				
7	SCN-07-03		0953	C	S		1	X				
8	SCN-07-06		0956	C	S		1	X				
9	SCN-07-12		0958	C	S		1	X				
10	SCN-07-18		1003	C	S		1	X				
11	SCN-08-01		1100	C	S		1	X				
12	SCN-08-03		1104	C	S		1	X				
13	SCN-08-06		1108	C	S		1	X				
14	SCN-08-12		1112	C	S		1	X				
15	SCN-08-18		1116	C	S		1	X				
16	SCN-09-01		1310	C	S		1	X				
17	SCN-09-03		1314	C	S		1	X				
18	SCN-09-06		1318	C	S		1	X				
19	SCN-09-12		1322	C	S		1	X				
20	SCN-09-18		1326	C	S		1	X				

Relinquished By: Madhvi Received By: Greg Date/Time: 15:32 07/06/2015
Relinquished By: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Received By: _____ Date/Time: _____

ADVANCED GEOSERVICES CORP.
CHAIN OF CUSTODY

Project # 2013-3007-09

Shipment #

Shipment Tracking # ~~courier pick-up~~ *Drop-off*

Deliverables (circle one)	Results only	Results/QC summary	CLP-Like
1. <u> </u> Deliverables (circle one)			
2. <u> </u> Results only			
3. <u> </u> Results/QC summary			
4. <u> </u> CLP-Like			

Results/QC summary



27 Date/Time: 15:32 07/06/2015

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SAMPLE RECEIPT CHECKLIST

COOLER 0 OF 0

CLIENT: Exide

DATE: 07/6/2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC5 (CF:-0.2°C); Temperature (w/o CF): 24.9 °C (w/ CF): 24.7 °C; ☐ Blank ☒ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 836

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☒ N/A

Checked by: 836

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: 1017

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/A

COC document(s) received complete ☒ Yes ☐ No ☐ N/A

☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers

☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time

Sampler's name indicated on COC ☐ Yes ☐ No ☒ N/A

Sample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/A

Sample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/A

Proper containers for analyses requested ☒ Yes ☐ No ☐ N/A

Sufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/A

Samples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/A

Proper preservation chemical(s) noted on COC and/or sample container ☐ Yes ☐ No ☒ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals

Container(s) for certain analysis free of headspace ☐ Yes ☐ No ☒ N/A

☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)

☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB

☐ 125PB_{znna} ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 250PB ☐ 250PB_n ☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s
☐ 500PB ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s ☐ 1PB ☐ 1PB_{na} ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☒ 2

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____) : ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO₃, **na** = NaOH, **na₂** = Na₂S₂O₃, **p** = H₃PO₄, Labeled/Checked by: 1017

s = H₂SO₄, **u** = ultra-pure, **znna** = Zn(CH₃CO₂)₂ + NaOH

Reviewed by: 836



Calscience



WORK ORDER NUMBER: 15-07-0294

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Advanced GeoServices Corporation

Client Project Name: Exide Vernon Offsite / 2013-3007-09

Attention: Adam Doubleday
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Amanda Porter

Approved for release on 07/21/2015 by:
Amanda Porter
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 15-07-0294

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Work Order Narrative

Work Order: 15-07-0294

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/07/15. They were assigned to Work Order 15-07-0294.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Sieved samples were processed using #60 sieve prior to analysis.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-11-01	15-07-0294-1-A	07/07/15 09:00	Solid	ICP 7300	07/08/15	07/09/15 23:29	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		155	0.500		1.00		
SCH-11-03	15-07-0294-2-A	07/07/15 09:03	Solid	ICP 7300	07/08/15	07/09/15 23:30	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		207	0.508		1.02		
SCH-11-06	15-07-0294-3-A	07/07/15 09:06	Solid	ICP 7300	07/08/15	07/09/15 23:32	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		44.6	0.524		1.05		
SCH-11-12	15-07-0294-4-A	07/07/15 09:09	Solid	ICP 7300	07/08/15	07/09/15 23:33	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		43.6	0.515		1.03		
SCH-11-18	15-07-0294-5-A	07/07/15 09:12	Solid	ICP 7300	07/08/15	07/09/15 23:35	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		15.6	0.513		1.03		
SCH-12-01	15-07-0294-6-A	07/07/15 10:20	Solid	ICP 7300	07/08/15	07/09/15 23:36	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		12.4	0.508		1.02		
SCH-12-03	15-07-0294-7-A	07/07/15 10:25	Solid	ICP 7300	07/08/15	07/09/15 23:41	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		19.0	0.493		0.985		
SCH-12-06	15-07-0294-8-A	07/07/15 10:30	Solid	ICP 7300	07/08/15	07/09/15 23:43	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		28.0	0.526		1.05		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-12-12	15-07-0294-9-A	07/07/15 10:35	Solid	ICP 7300	07/08/15	07/09/15 23:45	150708L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		27.1		0.500	1.00		
SCH-12-18	15-07-0294-10-A	07/07/15 10:40	Solid	ICP 7300	07/08/15	07/09/15 23:46	150708L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		12.7		0.481	0.962		
SCH-13-01	15-07-0294-11-A	07/07/15 10:55	Solid	ICP 7300	07/08/15	07/09/15 23:48	150708L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		88.1		0.490	0.980		
SCH-13-03	15-07-0294-12-A	07/07/15 11:00	Solid	ICP 7300	07/08/15	07/09/15 23:49	150708L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		74.8		0.526	1.05		
SCH-13-06	15-07-0294-13-A	07/07/15 11:05	Solid	ICP 7300	07/08/15	07/09/15 23:51	150708L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		70.4		0.505	1.01		
SCH-13-12	15-07-0294-14-A	07/07/15 11:10	Solid	ICP 7300	07/08/15	07/09/15 23:53	150708L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		45.3		0.513	1.03		
SCH-13-18	15-07-0294-15-A	07/07/15 11:15	Solid	ICP 7300	07/08/15	07/09/15 23:54	150708L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		22.1		0.500	1.00		
SCH-14-01	15-07-0294-16-A	07/07/15 12:10	Solid	ICP 7300	07/08/15	07/09/15 23:56	150708L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		31.3		0.488	0.976		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-14-03	15-07-0294-17-A	07/07/15 12:14	Solid	ICP 7300	07/08/15	07/10/15 00:01	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		19.4	0.493		0.985		
SCH-14-06	15-07-0294-18-A	07/07/15 12:18	Solid	ICP 7300	07/08/15	07/10/15 00:03	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		17.7	0.513		1.03		
SCH-14-12	15-07-0294-19-A	07/07/15 12:22	Solid	ICP 7300	07/08/15	07/10/15 00:04	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		16.5	0.505		1.01		
SCH-14-18	15-07-0294-20-A	07/07/15 12:26	Solid	ICP 7300	07/08/15	07/10/15 00:06	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		19.4	0.518		1.04		
SCH-15-01	15-07-0294-21-A	07/07/15 13:45	Solid	ICP 7300	07/08/15	07/09/15 22:21	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		43.1	0.518		1.04		
SCH-15-03	15-07-0294-22-A	07/07/15 13:50	Solid	ICP 7300	07/08/15	07/10/15 00:26	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		52.2	0.495		0.990		
SCH-15-06	15-07-0294-23-A	07/07/15 13:55	Solid	ICP 7300	07/08/15	07/10/15 00:26	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		33.4	0.526		1.05		
SCH-15-12	15-07-0294-24-A	07/07/15 14:00	Solid	ICP 7300	07/08/15	07/10/15 00:27	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		23.5	0.524		1.05		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-15-18	15-07-0294-25-A	07/07/15 14:05	Solid	ICP 7300	07/08/15	07/10/15 00:28	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		16.6	0.524		1.05		
SCH-16-01	15-07-0294-26-A	07/07/15 14:45	Solid	ICP 7300	07/08/15	07/10/15 00:28	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		39.5	0.485		0.971		
SCH-16-03	15-07-0294-27-A	07/07/15 14:50	Solid	ICP 7300	07/08/15	07/10/15 00:29	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		42.1	0.495		0.990		
SCH-16-06	15-07-0294-28-A	07/07/15 14:55	Solid	ICP 7300	07/08/15	07/10/15 00:30	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		70.7	0.505		1.01		
SCH-16-12	15-07-0294-29-A	07/07/15 14:58	Solid	ICP 7300	07/08/15	07/10/15 00:30	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		48.0	0.485		0.971		
SCH-16-18	15-07-0294-30-A	07/07/15 15:03	Solid	ICP 7300	07/08/15	07/10/15 00:31	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		18.4	0.510		1.02		
SCH-11-01 (sieve)	15-07-0294-33-A	07/07/15 09:00	Solid	ICP 7300	07/08/15	07/10/15 00:32	150708L02
Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.							
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		101	0.515		1.03		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-11-18 (sieve)	15-07-0294-34-A	07/07/15 09:12	Solid	ICP 7300	07/08/15	07/10/15 00:35	150708L02

Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.

Parameter	Result	RL	DF	Qualifiers
Lead	15.4	0.478	0.957	

SCH-13-01 (sieve)	15-07-0294-35-A	07/07/15 10:55	Solid	ICP 7300	07/08/15	07/10/15 00:35	150708L02
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Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.

Parameter	Result	RL	DF	Qualifiers
Lead	76.0	0.505	1.01	

SCH-14-01 (sieve)	15-07-0294-36-A	07/07/15 12:10	Solid	ICP 7300	07/08/15	07/10/15 00:36	150708L02
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Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.

Parameter	Result	RL	DF	Qualifiers
Lead	24.2	0.500	1.00	

SCH-15-01 (sieve)	15-07-0294-37-A	07/07/15 13:45	Solid	ICP 7300	07/08/15	07/10/15 00:37	150708L02
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Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.

Parameter	Result	RL	DF	Qualifiers
Lead	41.3	0.524	1.05	

SCH-16-01 (sieve)	15-07-0294-38-A	07/07/15 14:45	Solid	ICP 7300	07/08/15	07/10/15 00:37	150708L02
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Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.

Parameter	Result	RL	DF	Qualifiers
Lead	40.7	0.493	0.985	

Method Blank	097-01-002-21384	N/A	Solid	ICP 7300	07/08/15	07/09/15 23:22	150708L01
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Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.503	1.01	

Method Blank	097-01-002-21383	N/A	Solid	ICP 7300	07/08/15	07/09/15 22:01	150708L02
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Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.498	0.995	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-070615	15-07-0294-31-A	07/06/15 15:45	Aqueous	ICP 7300	07/08/15	07/10/15 23:39	150708LA7
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		ND		0.0100	1.00		
EB-070715	15-07-0294-32-A	07/07/15 16:30	Aqueous	ICP 7300	07/08/15	07/10/15 23:42	150708LA7
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		ND		0.0100	1.00		
Method Blank	097-01-003-15195	N/A	Aqueous	ICP 7300	07/08/15	07/09/15 12:41	150708LA7
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		ND		0.0100	1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-11-01	Sample	Solid	ICP 7300	07/08/15	07/09/15 23:29	150708S01
SCH-11-01	Matrix Spike	Solid	ICP 7300	07/08/15	07/09/15 23:25	150708S01
SCH-11-01	Matrix Spike Duplicate	Solid	ICP 7300	07/08/15	07/09/15 23:27	150708S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	155.4	25.00	309.0	4X	197.4	4X	75-125	4X	0-20	Q

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-15-01	Sample	Solid	ICP 7300	07/08/15	07/09/15 22:21	150708S02
SCH-15-01	Matrix Spike	Solid	ICP 7300	07/08/15	07/09/15 22:17	150708S02
SCH-15-01	Matrix Spike Duplicate	Solid	ICP 7300	07/08/15	07/09/15 22:19	150708S02

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Lead	43.11	25.00	66.72	94	72.91	119	75-125	9	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3010A Total
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-07-0357-1	Sample	Aqueous	ICP 7300	07/08/15	07/10/15 14:31	150708SA7
15-07-0357-1	Matrix Spike	Aqueous	ICP 7300	07/08/15	07/09/15 12:50	150708SA7
15-07-0357-1	Matrix Spike Duplicate	Aqueous	ICP 7300	07/08/15	07/09/15 12:52	150708SA7

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	ND	0.5000	0.6132	123	0.5993	120	84-120	2	0-7	3

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-21384	LCS	Solid	ICP 7300	07/08/15	07/09/15 23:24	150708L01

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead	25.00	26.14	105	80-120	

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Calscience

Quality Control - LCS

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-21383	LCS	Solid	ICP 7300	07/08/15	07/09/15 22:03	150708L02
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead		25.00	26.24	105	80-120	

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Calscience

Quality Control - LCS

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 07/07/15
Work Order: 15-07-0294
Preparation: EPA 3010A Total
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15195	LCS	Aqueous	ICP 7300	07/08/15	07/09/15 12:44	150708LA7

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead	0.5000	0.5527	111	80-120	

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Calscience

Sample Analysis Summary Report

Work Order: 15-07-0294

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3010A Total	771	ICP 7300	1
EPA 6010B	EPA 3050B	771	ICP 7300	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 15-07-0294

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

1055 Andrew Dr. Suite A
West Chester, PA 19380
tel 610.840.9100

ADVANCED GEOSERVICES CORP.
CHAIN OF CUSTODY

1055
1052

Project Name: Exide Vernon Offsite
AGC Contact: Adam Doubleday

Lab Name/Location: Calscience, Garden Grove, CA

Turnaround Time (circle one) Standard 5-Day 72-Hour 24-Hour

Project # 2013-3007-09

Shipment # 306 p I

Shipment Tracking # courier pick-up

Deliverables (circle one) Results only Results/QC summary CLP-Like

15-07-0294

Lab Use Only	Sample ID	Date	Time	Sample Type (C or G)	Matrix	Field Filled	# of Containers	ANALYSIS			Preservatives	REMARKS
								LEAD	#6010	SEIVE		
1	SCH-11-01	7-7-15	900	C	S	N	1	X	X	X		33
2	SCH-11-03		903									
3	SCH-11-06		906									
4	SCH-11-12		909									
5	SCH-11-18		912						X			Refused - 4 point sample
6	SCH-12-01		1020									34
7	SCH-12-03		1025									
8	SCH-12-06		1030									
9	SCH-12-12		1035									
10	SCH-12-18		1040									
11	SCH-13-01		1055						X			35
12	SCH-13-03		1100									
13	SCH-13-06		1105									
14	SCH-13-12		1110									
15	SCH-13-18		1115									
16	SCH-14-01		1210						X			36
17	SCH-14-03		1214									
18	SCH-14-06		1218									
19	SCH-14-12		1222									
20	SCH-14-18		1226									

Relinquished By: Andrew Doubleday Received By: Prey Date/Time: 7/7/2015 16:30
Relinquished By: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Received By: _____ Date/Time: _____

ADVANCED GEOSERVICES CORP.
CHAIN OF CUSTODY

Project # 2013-3007-09

Shipment Tracking # courier pick-up

Deliverables (circle one) Results only Results/QC summary CLP-Like

Results/QC summary

Page 19 of 20

[illegible]

Relinquished By: Michael A. [Signature] Received By: Pray, E9 Date/Time: 7/7/2015 16:30

Relinquished By: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Received By: _____ Date/Time: _____

Preservative: 1-ice, 2- H₂SO₄, 3-HCl, 4-HNO₃, 5-NaOH, 6-ZnOAC Remarks: EZ - Exclusion Zone
Sample Matrix: SW - Surface Water, GW - Groundwater, Sed - Sediment, S - Soil, Sld - Sludge, A - Air
P1325 AGC-Exide, Vermont007, Offsite Soil Sampling

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Exide

DATE: 07 / 07 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC5 (CF:-0.2°C); Temperature (w/o CF): 16-7 °C (w/ CF): 16-5 °C; ☐ Blank ☒ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ Filter

Checked by: 836

CUSTODY SEAL:

Cooler ☐ Present and Intact☐ Present but Not Intact☒ Not Present☐ N/A

Checked by: 836

Sample(s) ☐ Present and Intact☐ Present but Not Intact☒ Not Present☐ N/A

Checked by: 603

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ☐ Yes ☐ No ☒ N/ASample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/ASamples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsContainer(s) for certain analysis free of headspace ☐ Yes ☐ No ☒ N/A☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB☐ 125PB_{znna} ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 250PB ☒ 250PB_n ☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s☐ 500PB ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s ☐ 1PB ☐ 1PB_{na} ☐ _____ ☐ _____ ☐ _____ ☐ _____Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☒ ZAir: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (_____) ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 603s = H₂SO₄, u = ultra-pure, znna = Zn(CH₃CO₂)₂ + NaOH

Reviewed by: 836

ATTACHMENT 2

**DTSC Review of
July 2015 Soil Sampling Field Activities Report
Los Angeles Unified School District Schools**

July 31, 2015



Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

Barbara A. Lee, Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Edmund G. Brown Jr.
Governor

July 31, 2015

Mr. Fredrick Ganster
Exide Technologies
3000 Montrose Avenue
Reading, Pennsylvania 19605

DTSC REVIEW OF REVISED JULY 2015 SOIL SAMPLING FIELD ACTIVITIES REPORT, LOS ANGELES UNIFIED SCHOOL DISTRICT SCHOOLS, EXIDE TECHNOLOGIES, VERNON, CA (CORRECTIVE ACTION CONSENT ORDER, DOCKET NUMBER P3-01 /02-010)

Dear Mr. Ganster:

The Department of Toxic Substances Control (DTSC) has reviewed the report titled "July 2015 Soil Sampling Field Activities Report, Los Angeles Unified School District Schools" (Report), which was prepared by Avocet Environmental Inc. (Avocet) for Advanced GeoServices Inc. (AGC), a consultant for Exide Technologies, Inc. (Exide). The Report is dated July 30, 2015 and was received by DTSC via email on July 31, 2015. The Report includes a cover letter prepared by AGC, also dated July 31, 2015, and addressed to Mr. Pat Shanen of the Los Angeles County Unified School District (LAUSD). The Report documents the sampling protocol and the results of laboratory analysis of soil samples collected from 11 LAUSD schools on July 6 and 7, 2015. DTSC staff was present during the stated July 6 and July 7, 2015 sampling work, and based on our review of the Report we have concluded that the sampling protocol as stated in the Report is accurate.

The results of laboratory analysis are provided in table format, attached to the AGC cover letter. DTSC cannot validate the tabulated information in the AGC cover letter since the actual laboratory data was not provided in the Report. Exide must provide DTSC with validated laboratory reports that verify the tabulated soil concentrations submitted without delay.

Notwithstanding the above, DTSC has reviewed the information provided in AGC's cover letter and has concluded that additional analysis for lead in soils is necessary to gain a better understanding for lead concentrations exceeding 80 parts-per-million for the composite samples. Based on the tables this additional analysis would include the samples from: SCH-07 (0-1", 1-3", and 3-6"); SCH-09 (3-6"); SCH-11 (0-1" and 1-3"); and SCH-13 (0-1"). The additional laboratory analysis should be performed on an expedited basis.

Mr. Frederick Ganster

July 31, 2015

Page 2

Should you have any questions regarding this letter, please contact me at 916-255-3630 or Peter.Ruttan@dtsc.ca.gov.

Sincerely,



Peter Ruttan
Project Manager
Office of Permitting

cc: (via e-mail)

Mr. Chuck Giesige, Exide
Mr. Tom Strang, Exide
Mr. John Hogarth, Exide
Ms. Christine Graessle, Exide
Mr. Paul Stratman, AGC
Ms. Barbara Forslund, AGC
Mr. Pat Shanen, LAUSD

Mr. Keith Kihara, DTSC
Mr. Rizgar Ghazi, DTSC
Ms. Suhasini Patel, DTSC
Mr. Richard Sherwood, DTSC
Mr. Todd Wallbom, DTSC
Ms. Dina Kourda
Ms. Yolanda Garza

ATTACHMENT 3

Select Discrete Sample Results

Received August 2015

EXIDE VERNON
2014 - 2015 Residential Soil Sampling
Lead Results

Sample Location(s): SCH-07 (composite)

Sample Date: 7/6/2015

Sample Depth	SCH-07
0-1"	81.7
1-3"	87.3
3-6"	81.5
6-12"	66.4
12-18"	17.1

Samples are composites

All lead results reported in mg/kg

Sample Location: SCH-07 (discrete)

Sample Date: 7/6/2015

Sample Depth	1D	2D	3D	4D	5D
0-1"	35.7	213	170	70.3	66.4
1-3"	65.7	219	158	65.2	58.7
3-6"	78.9	217	171	68.7	23.4
6-12"	NA	NA	NA	NA	NA
12-18"	NA	NA	NA	NA	NA

All lead results reported in mg/kg

NA - Not analyzed. Only discrete samples for the depth intervals with composite results greater than 80 mg/kg were analyzed.



EXIDE VERNON
2014 - 2015 Residential Soil Sampling
Lead Results

Sample Location(s): SCH-09 (composite)

Sample Date: 7/6/2015

Sample Depth	SCH-09
0-1"	68.6
1-3"	70.1
3-6"	112
6-12"	52.6
12-18"	29.9

Samples are composites

All lead results reported in mg/kg

Sample Location: SCH-09 (discrete)

Sample Date: 7/6/2015

Sample Depth	1D	2D	3D	4D	5D
0-1"	NA	NA	NA	NA	NA
1-3"	NA	NA	NA	NA	NA
3-6"	105	19.5	139	163	17.5
6-12"	NA	NA	NA	NA	NA
12-18"	NA	NA	NA	NA	NA

All lead results reported in mg/kg

NA - Not analyzed. Only discrete samples for the depth intervals with composite results greater than 80 mg/kg were analyzed.



EXIDE VERNON
2014 - 2015 Residential Soil Sampling
Lead Results

Sample Location(s): SCH-11 (composite)

Sample Date: 7/7/2015

Sample Depth	SCH-11
0-1"	155
1-3"	207
3-6"	44.6
6-12"	43.6
12-18"	15.6

Samples are composites

All lead results reported in mg/kg

Sample Location: SCH-11 (discrete)

Sample Date: 7/7/2015

Sample Depth	1D	2D	3D	4D	5D
0-1"	481	688	80.8	31.9	29.4
1-3"	220	450	85.2	28.8	29.2
3-6"	NA	NA	NA	NA	NA
6-12"	NA	NA	NA	NA	NA
12-18"	NA	NA	NA	NA	NA

All lead results reported in mg/kg

NA - Not analyzed. Only discrete samples for the depth intervals with composite results greater than 80 mg/kg were analyzed.



EXIDE VERNON
2014 - 2015 Residential Soil Sampling
Lead Results

Sample Location(s): SCH-13 (composite)

Sample Date: 7/7/2015

Sample Depth	SCH-13
0-1"	88.1
1-3"	74.8
3-6"	70.4
6-12"	45.3
12-18"	22.1

Samples are composites

All lead results reported in mg/kg

Sample Location: SCH-13 (discrete)

Sample Date: 7/7/2015

Sample Depth	1D	2D	3D	4D	5D
0-1"	183	144	25.8	29.8	37.9
1-3"	NA	NA	NA	NA	NA
3-6"	NA	NA	NA	NA	NA
6-12"	NA	NA	NA	NA	NA
12-18"	NA	NA	NA	NA	NA

All lead results reported in mg/kg

NA - Not analyzed. Only discrete samples for the depth intervals with composite results greater than 80 mg/kg were analyzed.



DATA VALIDATION SUMMARY

Level I

Site Name: Exide Vernon
 Project Number: 2013-3007
 Sampling Date(s): 7/6 - 7/7/15

Laboratory: Calscience
 Case/Order/SDG # 15-08-0208

Compound List: Lead

Method: 6010

The following table indicates the data validation criteria examined, any problems identified, and the QA action applied.

Data Validation Criteria:	Accept	FYI	Qualify	Comments
Holding Times	X			
Blank Analysis	X			
Field Duplicate Analysis				NA
Surrogate Recoveries				NA
Matrix Spike Analysis (MS/MSD)		X		Sample conc >4X spike conc
Laboratory Control Sample Analysis (LCS)	X			
Laboratory Duplicate Analysis				NA
Overall Assessment of Data	X			
Other:				

General Comments: cooler temp: 2.1

Accept - No qualification required.

FYI - For your information only, no qualification necessary.

Qualify - Qualify as rejected, estimated or biased.

NR - Not Reviewed

NA - Not Applicable

QA Scientist 
 Date 8/10/2015



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-07-1D-01	15-08-0208-1-A	07/06/15 09:15	Solid	ICP 8300	08/04/15	08/05/15 12:27	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		35.7	0.495		0.990		
SCH-07-1D-03	15-08-0208-2-A	07/06/15 09:16	Solid	ICP 8300	08/04/15	08/05/15 12:28	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		65.7	0.488		0.976		
SCH-07-1D-06	15-08-0208-3-A	07/06/15 09:17	Solid	ICP 8300	08/04/15	08/05/15 12:31	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		78.9	0.518		1.04		
SCH-07-2D-01	15-08-0208-4-A	07/06/15 09:20	Solid	ICP 8300	08/04/15	08/05/15 12:31	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		213	0.503		1.01		
SCH-07-2D-03	15-08-0208-5-A	07/06/15 09:21	Solid	ICP 8300	08/04/15	08/05/15 12:32	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		219	0.515		1.03		
SCH-07-2D-06	15-08-0208-6-A	07/06/15 09:22	Solid	ICP 8300	08/04/15	08/05/15 12:33	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		217	0.508		1.02		
SCH-07-3D-01	15-08-0208-7-A	07/06/15 09:25	Solid	ICP 8300	08/04/15	08/05/15 12:34	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		170	0.493		0.985		
SCH-07-3D-03	15-08-0208-8-A	07/06/15 09:26	Solid	ICP 8300	08/04/15	08/05/15 12:35	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		158	0.495		0.990		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

8/10/2015



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

Page 2 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-07-3D-06	15-08-0208-9-A	07/06/15 09:27	Solid	ICP 8300	08/04/15	08/05/15 12:36	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		171	0.483		0.966		
SCH-07-4D-01	15-08-0208-10-A	07/06/15 09:30	Solid	ICP 8300	08/04/15	08/05/15 12:37	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		70.3	0.495		0.990		
SCH-07-4D-03	15-08-0208-11-A	07/06/15 09:31	Solid	ICP 8300	08/04/15	08/05/15 12:37	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		65.2	0.513		1.03		
SCH-07-4D-06	15-08-0208-12-A	07/06/15 09:32	Solid	ICP 8300	08/04/15	08/05/15 12:38	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		68.7	0.498		0.995		
SCH-07-5D-01	15-08-0208-13-A	07/06/15 09:35	Solid	ICP 8300	08/04/15	08/05/15 12:41	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		66.4	0.483		0.966		
SCH-07-5D-03	15-08-0208-14-A	07/06/15 09:36	Solid	ICP 8300	08/04/15	08/05/15 12:42	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		58.7	0.508		1.02		
SCH-07-5D-06	15-08-0208-15-A	07/06/15 09:37	Solid	ICP 8300	08/04/15	08/05/15 12:43	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		23.4	0.518		1.04		
SCH-09-1D-06	15-08-0208-16-A	07/06/15 12:27	Solid	ICP 8300	08/04/15	08/05/15 12:44	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		105	0.503		1.01		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

8/10/2015



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-09-2D-06	15-08-0208-17-A	07/06/15 12:32	Solid	ICP 8300	08/04/15	08/05/15 12:45	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		19.5	0.483		0.966		
SCH-09-3D-06	15-08-0208-18-A	07/06/15 12:38	Solid	ICP 8300	08/04/15	08/05/15 12:46	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		139	0.510		1.02		
SCH-09-4D-06	15-08-0208-19-A	07/06/15 12:42	Solid	ICP 8300	08/04/15	08/05/15 12:46	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		163	0.495		0.990		
SCH-09-5D-06	15-08-0208-20-A	07/06/15 12:47	Solid	ICP 8300	08/04/15	08/05/15 12:47	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		17.5	0.490		0.980		
SCH-11-1D-01	15-08-0208-21-A	07/07/15 08:20	Solid	ICP 8300	08/04/15	08/05/15 12:48	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		481	0.495		0.990		
SCH-11-1D-03	15-08-0208-22-A	07/07/15 08:21	Solid	ICP 8300	08/04/15	08/05/15 12:49	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		220	0.505		1.01		
SCH-11-2D-01	15-08-0208-23-A	07/07/15 08:25	Solid	ICP 8300	08/04/15	08/05/15 12:52	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		688	0.481		0.962		
SCH-11-2D-03	15-08-0208-24-A	07/07/15 08:26	Solid	ICP 8300	08/04/15	08/05/15 12:53	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		450	0.513		1.03		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

fw
8/10/2015



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-11-3D-01	15-08-0208-25-A	07/07/15 08:30	Solid	ICP 8300	08/04/15	08/05/15 12:53	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		80.8	0.513		1.03		
SCH-11-3D-03	15-08-0208-26-A	07/07/15 08:31	Solid	ICP 8300	08/04/15	08/05/15 12:54	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		85.2	0.508		1.02		
SCH-11-4D-01	15-08-0208-27-A	07/07/15 08:35	Solid	ICP 8300	08/04/15	08/05/15 12:55	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		31.9	0.476		0.952		
SCH-11-4D-03	15-08-0208-28-A	07/07/15 08:36	Solid	ICP 8300	08/04/15	08/05/15 12:56	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		28.8	0.510		1.02		
SCH-11-5D-01	15-08-0208-29-A	07/07/15 08:40	Solid	ICP 8300	08/04/15	08/05/15 12:57	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.4	0.510		1.02		
SCH-11-5D-03	15-08-0208-30-A	07/07/15 08:41	Solid	ICP 8300	08/04/15	08/05/15 12:58	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.2	0.498		0.995		
SCH-13-1D-01	15-08-0208-31-A	07/07/15 10:25	Solid	ICP 8300	08/04/15	08/05/15 12:58	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		183	0.490		0.980		
SCH-13-2D-01	15-08-0208-32-A	07/07/15 10:30	Solid	ICP 8300	08/04/15	08/05/15 12:59	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		144	0.510		1.02		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

8/10/2015



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-13-3D-01	15-08-0208-33-A	07/07/15 10:35	Solid	ICP 8300	08/04/15	08/05/15 13:02	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		25.8	0.485		0.971		
SCH-13-4D-01	15-08-0208-34-A	07/07/15 10:40	Solid	ICP 8300	08/04/15	08/05/15 13:03	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		29.8	0.515		1.03		
SCH-13-5D-01	15-08-0208-35-A	07/07/15 10:45	Solid	ICP 8300	08/04/15	08/05/15 13:04	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		37.9	0.518		1.04		
Method Blank	097-01-002-21548	N/A	Solid	ICP 8300	08/04/15	08/05/15 12:19	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		ND	0.500		1.00		
Method Blank	097-01-002-21549	N/A	Solid	ICP 8300	08/04/15	08/05/15 12:20	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		ND	0.500		1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

fw
8/10/2015



Calscience

Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-11-1D-01	Sample	Solid	ICP 8300	08/04/15	08/05/15 12:48	150804S08
SCH-11-1D-01	Matrix Spike	Solid	ICP 8300	08/04/15	08/05/15 12:25	150804S08
SCH-11-1D-01	Matrix Spike Duplicate	Solid	ICP 8300	08/04/15	08/05/15 12:26	150804S08

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	481.2	25.00	413.8	4X	295.5	4X	75-125	4X	0-20	Q

FYI

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RPD: Relative Percent Difference. CL: Control Limits

fw
8/10/2015

**WORK ORDER NUMBER: 15-08-0208***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For**Client:** Advanced GeoServices Corporation**Client Project Name:** Exide Vernon Offsite / 2013-3007-09**Attention:** Adam Doubleday
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293*Amanda Porter*

Approved for release on 08/05/2015 by:
Amanda Porter
Project Manager

ResultLink ▶

Email your PM ▶



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Contents

Client Project Name: Exide Vernon Offsite / 2013-3007-09
 Work Order Number: 15-08-0208

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Work Order Narrative

Work Order: 15-08-0208

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/04/15. They were assigned to Work Order 15-08-0208.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-07-1D-01	15-08-0208-1-A	07/06/15 09:15	Solid	ICP 8300	08/04/15	08/05/15 12:27	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		35.7	0.495		0.990		
SCH-07-1D-03	15-08-0208-2-A	07/06/15 09:16	Solid	ICP 8300	08/04/15	08/05/15 12:28	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		65.7	0.488		0.976		
SCH-07-1D-06	15-08-0208-3-A	07/06/15 09:17	Solid	ICP 8300	08/04/15	08/05/15 12:31	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		78.9	0.518		1.04		
SCH-07-2D-01	15-08-0208-4-A	07/06/15 09:20	Solid	ICP 8300	08/04/15	08/05/15 12:31	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		213	0.503		1.01		
SCH-07-2D-03	15-08-0208-5-A	07/06/15 09:21	Solid	ICP 8300	08/04/15	08/05/15 12:32	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		219	0.515		1.03		
SCH-07-2D-06	15-08-0208-6-A	07/06/15 09:22	Solid	ICP 8300	08/04/15	08/05/15 12:33	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		217	0.508		1.02		
SCH-07-3D-01	15-08-0208-7-A	07/06/15 09:25	Solid	ICP 8300	08/04/15	08/05/15 12:34	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		170	0.493		0.985		
SCH-07-3D-03	15-08-0208-8-A	07/06/15 09:26	Solid	ICP 8300	08/04/15	08/05/15 12:35	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		158	0.495		0.990		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-07-3D-06	15-08-0208-9-A	07/06/15 09:27	Solid	ICP 8300	08/04/15	08/05/15 12:36	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		171	0.483		0.966		
SCH-07-4D-01	15-08-0208-10-A	07/06/15 09:30	Solid	ICP 8300	08/04/15	08/05/15 12:37	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		70.3	0.495		0.990		
SCH-07-4D-03	15-08-0208-11-A	07/06/15 09:31	Solid	ICP 8300	08/04/15	08/05/15 12:37	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		65.2	0.513		1.03		
SCH-07-4D-06	15-08-0208-12-A	07/06/15 09:32	Solid	ICP 8300	08/04/15	08/05/15 12:38	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		68.7	0.498		0.995		
SCH-07-5D-01	15-08-0208-13-A	07/06/15 09:35	Solid	ICP 8300	08/04/15	08/05/15 12:41	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		66.4	0.483		0.966		
SCH-07-5D-03	15-08-0208-14-A	07/06/15 09:36	Solid	ICP 8300	08/04/15	08/05/15 12:42	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		58.7	0.508		1.02		
SCH-07-5D-06	15-08-0208-15-A	07/06/15 09:37	Solid	ICP 8300	08/04/15	08/05/15 12:43	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		23.4	0.518		1.04		
SCH-09-1D-06	15-08-0208-16-A	07/06/15 12:27	Solid	ICP 8300	08/04/15	08/05/15 12:44	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		105	0.503		1.01		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Advanced GeoServices Corporation
 1055 Andrew Drive, Suite A
 West Chester, PA 19380-4293

Date Received: 08/04/15
 Work Order: 15-08-0208
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-09-2D-06	15-08-0208-17-A	07/06/15 12:32	Solid	ICP 8300	08/04/15	08/05/15 12:45	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		19.5	0.483		0.966		
SCH-09-3D-06	15-08-0208-18-A	07/06/15 12:38	Solid	ICP 8300	08/04/15	08/05/15 12:46	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		139	0.510		1.02		
SCH-09-4D-06	15-08-0208-19-A	07/06/15 12:42	Solid	ICP 8300	08/04/15	08/05/15 12:46	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		163	0.495		0.990		
SCH-09-5D-06	15-08-0208-20-A	07/06/15 12:47	Solid	ICP 8300	08/04/15	08/05/15 12:47	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		17.5	0.490		0.980		
SCH-11-1D-01	15-08-0208-21-A	07/07/15 08:20	Solid	ICP 8300	08/04/15	08/05/15 12:48	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		481	0.495		0.990		
SCH-11-1D-03	15-08-0208-22-A	07/07/15 08:21	Solid	ICP 8300	08/04/15	08/05/15 12:49	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		220	0.505		1.01		
SCH-11-2D-01	15-08-0208-23-A	07/07/15 08:25	Solid	ICP 8300	08/04/15	08/05/15 12:52	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		688	0.481		0.962		
SCH-11-2D-03	15-08-0208-24-A	07/07/15 08:26	Solid	ICP 8300	08/04/15	08/05/15 12:53	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		450	0.513		1.03		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-11-3D-01	15-08-0208-25-A	07/07/15 08:30	Solid	ICP 8300	08/04/15	08/05/15 12:53	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		80.8	0.513		1.03		
SCH-11-3D-03	15-08-0208-26-A	07/07/15 08:31	Solid	ICP 8300	08/04/15	08/05/15 12:54	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		85.2	0.508		1.02		
SCH-11-4D-01	15-08-0208-27-A	07/07/15 08:35	Solid	ICP 8300	08/04/15	08/05/15 12:55	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		31.9	0.476		0.952		
SCH-11-4D-03	15-08-0208-28-A	07/07/15 08:36	Solid	ICP 8300	08/04/15	08/05/15 12:56	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		28.8	0.510		1.02		
SCH-11-5D-01	15-08-0208-29-A	07/07/15 08:40	Solid	ICP 8300	08/04/15	08/05/15 12:57	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.4	0.510		1.02		
SCH-11-5D-03	15-08-0208-30-A	07/07/15 08:41	Solid	ICP 8300	08/04/15	08/05/15 12:58	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.2	0.498		0.995		
SCH-13-1D-01	15-08-0208-31-A	07/07/15 10:25	Solid	ICP 8300	08/04/15	08/05/15 12:58	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		183	0.490		0.980		
SCH-13-2D-01	15-08-0208-32-A	07/07/15 10:30	Solid	ICP 8300	08/04/15	08/05/15 12:59	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		144	0.510		1.02		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-13-3D-01	15-08-0208-33-A	07/07/15 10:35	Solid	ICP 8300	08/04/15	08/05/15 13:02	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		25.8	0.485		0.971		
SCH-13-4D-01	15-08-0208-34-A	07/07/15 10:40	Solid	ICP 8300	08/04/15	08/05/15 13:03	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		29.8	0.515		1.03		
SCH-13-5D-01	15-08-0208-35-A	07/07/15 10:45	Solid	ICP 8300	08/04/15	08/05/15 13:04	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		37.9	0.518		1.04		
Method Blank	097-01-002-21548	N/A	Solid	ICP 8300	08/04/15	08/05/15 12:19	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		ND	0.500		1.00		
Method Blank	097-01-002-21549	N/A	Solid	ICP 8300	08/04/15	08/05/15 12:20	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		ND	0.500		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-07-1D-01	Sample	Solid	ICP 8300	08/04/15	08/05/15 12:27	150804S07
SCH-07-1D-01	Matrix Spike	Solid	ICP 8300	08/04/15	08/05/15 12:24	150804S07
SCH-07-1D-01	Matrix Spike Duplicate	Solid	ICP 8300	08/04/15	08/05/15 12:24	150804S07

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	35.70	25.00	59.58	96	58.69	92	75-125	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation
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West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-11-1D-01	Sample	Solid	ICP 8300	08/04/15	08/05/15 12:48	150804S08
SCH-11-1D-01	Matrix Spike	Solid	ICP 8300	08/04/15	08/05/15 12:25	150804S08
SCH-11-1D-01	Matrix Spike Duplicate	Solid	ICP 8300	08/04/15	08/05/15 12:26	150804S08

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	481.2	25.00	413.8	4X	295.5	4X	75-125	4X	0-20	Q

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-21548	LCS	Solid	ICP 8300	08/04/15	08/05/15 12:21	150804L07

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead	25.00	26.19	105	80-120	

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Calscience

Quality Control - LCS

Advanced GeoServices Corporation
1055 Andrew Drive, Suite A
West Chester, PA 19380-4293

Date Received: 08/04/15
Work Order: 15-08-0208
Preparation: EPA 3050B
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-21549	LCS	Solid	ICP 8300	08/04/15	08/05/15 12:22	150804L08

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead	25.00	25.92	104	80-120	

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Calscience

Sample Analysis Summary Report

Work Order: 15-08-0208

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	935	ICP 8300	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 15-08-0208

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

1055 Andrew Dr. Suite A
West Chester, PA 19380
tel 610.840.9100

ADVANCED GEOSERVICES CORP.
CHAIN OF CUSTODY

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Project Name: Exide Vernon Offsite
AGC Contact: Adam Doubleday

Lab Name/Location: Calscience, Garden Grove, CA

Turnaround Time (circle one) Standard 5-Day 72-Hour 24-Hour

Project # 2013-3007-09

Shipment #

Shipment Tracking #

Deliverables (circle one)

15-08-0208

courier pick-up

Results only Results/QC summary

Lab Use Only	Sample ID	Date	Time	Sample Type (C or G)	Matrix	Field Filtered	# of Containers	ANALYSIS					REMARKS
								Lead					
1	SCH-07-10-01	7/ 6 /15	915	G	S	N	1	X					Invoice to Exide
2	SCH-07-10-03	7/ 6 /15	916	G	S	N	1	X					
3	SCH-07-10-06	7/ 6 /15	917	G	S	N	1	X					
4	SCH-07-20-01	7/ 6 /15	920	G	S	N	1	X					
5	SCH-07-20-03	7/ 6 /15	921	G	S	N	1	X					
6	SCH-07-20-06	7/ 6 /15	922	G	S	N	1	X					
7	SCH-07-30-01	7/ 6 /15	925	G	S	N	1	X					
8	SCH-07-30-03	7/ 6 /15	926	G	S	N	1	X					
9	SCH-07-30-06	7/ 6 /15	927	G	S	N	1	X					
10	SCH-07-40-01	7/ 6 /16	930	G	S	N	1	X					
11	SCH-07-40-03	7/ 6 /17	931	G	S	N	1	X					
12	SCH-07-40-06	7/ 6 /18	932	G	S	N	1	X					
13	SCH-07-50-01	7/ 6 /19	935	G	S	N	1	X					
14	SCH-07-50-03	7/ 6 /20	936	G	S	N	1	X					
15	SCH-07-50-06	7/ 6 /21	937	G	S	N	1	X					

Relinquished By: John Saff Received By: Rudy W Date/Time: 8/4/15 1616
Relinquished By: Rudy W Date/Time: 8/4/15 1800

Preservative: 1-ice, 2-H₂SO₄, 3-HCl, 4-HNO₃, 5-NaOH, 6-ZnOAC
Sample Matrix: SW - Surface Water, GW - Groundwater, Sed - Sediment, S - Soil, Sld - Sludge, A - Air
C:\Users\jbat\Desktop\Exide Vernon\Test Borings\Chain of Custody - Feed Room Bag

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Project Name: Exide Vernon Offsite
AGC Contact: Adam Doubleday

Lab Name/Location: Calscience, Garden Grove, CA

Turnaround Time (circle one) Standard 5-Day 72-Hour 24-Hour

Project # 2013-3007-09

Shipment #

Shipment Tracking # courier pick-up

Deliverables (circle one) Results only Results/QC summary OLP-Like

0208

Lab Use Only	Sample ID	Date	Time	Sample Type (C or G)	Matrix	Field Filtered	# of Containers	ANALYSIS				Preservatives	REMARKS
								Lead					
16	SCH-09-10-06	7/6/15	1227	G	S	N	1	X					Invoice to Exide
17	SCH-09-20-06	7/6/15	1232	G	S	N	1	X					
18	SCH-09-30-06	7/6/15	1237	G	S	N	1	X					
19	SCH-09-40-06	7/6/15	1242	G	S	N	1	X					
20	SCH-09-50-06	7/6/15	1247	G	S	N	1	X					
21	SCH-11-10-01	7/7/15	820	G	S	N	1	X					
22	SCH-11-10-03	7/7/15	821	G	S	N	1	X					
23	SCH-11-20-01	7/7/15	825	G	S	N	1	X					
24	SCH-11-20-03	7/7/15	826	G	S	N	1	X					
25	SCH-11-30-01	7/7/15	830	G	S	N	1	X					
26	SCH-11-30-03	7/7/15	831	G	S	N	1	X					
27	SCH-11-40-01	7/7/15	835	G	S	N	1	X					
28	SCH-11-40-03	7/7/15	836	G	S	N	1	X					
29	SCH-11-50-01	7/7/15	840	G	S	N	1	X					
30	SCH-11-50-03	7/7/15	841	G	S	N	1	X					

Relinquished By: Adam Sattler Received By: Rudy W. E.C. Date/Time: 8/4/15 1616
Relinquished By: Rudy W. Received By: g Date/Time: 8/4/15 1800

1055 Andrew Dr. Suite A
West Chester, PA 19380
tel 610.840.9100

ADVANCED GEOSERVICES CORP.
CHAIN OF CUSTODY

Page 3 of 3

Project Name: Exide Vernon Offsite
AGC Contact: Adam Doubleday

Lab Name/Location: Calscience, Garden Grove, CA

Turnaround Time (circle one) Standard 5-Day 72-Hour 24-Hour

Project # 2013-3007-09

Shipment #

Shipment Tracking # courier pick-up

Deliverables (circle one) Results only

Results/QC summary OLP-Like

0208

Lab Use Only	Sample ID	Date	Time	Sample Type (C or G)	Matrix	Field Filtered	# of Containers	ANALYSIS				Preservatives	REMARKS
								Lead					
31	SCH-13-10-01	7/7/15	1025	G	S	N	1	X					Invoice to Exide
32	SCH-13-20-01	7/7/15	1030	G	S	N	1	X					
33	SCH-13-30-01	7/7/15	1035	G	S	N	1	X					
34	SCH-13-40-01	7/7/15	1040	G	S	N	1	X					
35	SCH-13-50-01	7/7/15	1045	G	S	N	1	X					
	SCH-13-60-01	7/7/15		G	S	N	1	X					
	SCH-13-70-01	7/7/15		G	S	N	1	X					
	SCH-13-80-01	7/7/15		G	S	N	1	X					
	SCH-13-90-01	7/7/15		G	S	N	1	X					
	SCH-13-100-01	7/7/15		G	S	N	1	X					
	SCH-13-110-01	7/7/15		G	S	N	1	X					
	SCH-13-120-01	7/7/15		G	S	N	1	X					
	SCH-13-130-01	7/7/15		G	S	N	1	X					
	SCH-13-140-01	7/7/15		G	S	N	1	X					
	SCH-13-150-01	7/7/15		G	S	N	1	X					
	SCH-13-160-01	7/7/15		G	S	N	1	X					
	SCH-13-170-01	7/7/15		G	S	N	1	X					
	SCH-13-180-01	7/7/15		G	S	N	1	X					
	SCH-13-190-01	7/7/15		G	S	N	1	X					
	SCH-13-200-01	7/7/15		G	S	N	1	X					
	SCH-13-210-01	7/7/15		G	S	N	1	X					
	SCH-13-220-01	7/7/15		G	S	N	1	X					
	SCH-13-230-01	7/7/15		G	S	N	1	X					
	SCH-13-240-01	7/7/15		G	S	N	1	X					
	SCH-13-250-01	7/7/15		G	S	N	1	X					
	SCH-13-260-01	7/7/15		G	S	N	1	X					
	SCH-13-270-01	7/7/15		G	S	N	1	X					
	SCH-13-280-01	7/7/15		G	S	N	1	X					
	SCH-13-290-01	7/7/15		G	S	N	1	X					
	SCH-13-300-01	7/7/15		G	S	N	1	X					

Relinquished By: *John Satz* Received By: *Dudley W* ECL Date/Time: 8/4/15 1616
Relinquished By: *Dudley W* Received By: *ES* Date/Time: 8/4/15 1800

Preservative: 1-ice, 2-H₂SO₄, 3-HCl, 4-HNO₃, 5-NaOH, 6-ZnOAC
Sample Matrix: SW - Surface Water, GW - Groundwater, Sed - Sediment, S - Soil, Sld - Sludge, A - Air
C:\Users\johnt\Desktop\Exide Vernon\Chain of Custody - Feed Room Bag



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: ADVANCED GEO SERVICES CORP.

DATE: 08/4/2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC5 (CF:-0.2°C); Temperature (w/o CF): 2.2 °C (w/ CF): 2.0 °C; ☐ Blank ☒ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ Filter

Checked by: 676

CUSTODY SEAL:

Cooler ☐ Present and Intact☐ Present but Not Intact☒ Not Present☐ N/A

Checked by: 676

Sample(s) ☐ Present and Intact☐ Present but Not Intact☒ Not Present☐ N/A

Checked by: 1013

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples

Yes No N/A

☒☐☐

COC document(s) received complete

☒☐☐☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time

Sampler's name indicated on COC

☐☐☒

Sample container label(s) consistent with COC

☒☐☐

Sample container(s) intact and in good condition

☒☐☐

Proper containers for analyses requested

☒☐☐

Sufficient volume/mass for analyses requested

☒☐☐

Samples received within holding time

☒☐☐

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen☐☐☒

Proper preservation chemical(s) noted on COC and/or sample container

☐☐☒

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals

Container(s) for certain analysis free of headspace

☐☐☒☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation

☐☐☒

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB☐ 125PB_{znna} ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 250PB ☐ 250PB_n ☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s☐ 500PB ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s ☐ 1PB ☐ 1PB_{na} ☐ _____ ☐ _____ ☐ _____Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☒ ZipbagAir: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (_____) ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1013s = H₂SO₄, u = ultra-pure, znna = Zn(CH₃CO₂)₂ + NaOH

Reviewed by: 774